SARS-CoV-2 Medical Countermeasures Task Force

Date: March 27, 2020

Agencies reporting: BARDA, NIAID, DoD

Agencies not reporting: FDA, CDC, DHS, USDA

Talking Points

- 0900 Section Chief & Task Force Meeting (due 0800): David
- 1200 SLB (due 0930): Christy
- 1230 UCG VTC (due 1100): Chris
- 1700 SLB (due 1400): Christy

Accomplishments

- Clinical trial to test remdesivir (Gilead) for treatment of COVID-19: 27 new patients in last 24 hrs (141/440), 6 new sites (34 total) [NIAID]
- Observational study to understand COVID-19 disease course; 5 enrolled at 4 military treatment facilities [DoD]

Currently Working

- Working with diagnostic test developers to identify and validate alternatives to swabs and transport media for sample collection [MCM TF Diagnostics WG]
- Working with vaccine and drug developers to mitigate potential raw material shortages before they become a problem [BARDA]

USG-Sponsored COVID-19 Clinical Trials Underway

	Sponsor	Target Enrollment	Number of Sites	Enrollment
Adaptive COVID-19 Treatment Trial (ACTT)	NIAID	440	34 (30 US)	141 (128 US)
Moderna mRNA-1273 Vaccine Phase I	NIAID	45	2	19
Sarilumab (anti-IL-6R mAb)	BARDA, Regeneron	400	31	120

- Adaptive COVID-19 Treatment Trial NIAID
 - Currently remdesivir vs. placebo control (with options to add additional arms as needed)
 - Target enrollment = 440
 - Inclusion criteria Confirmed SARS-CoV-2 infection (efficacy, but a little gray area PEP too)
 - Primary endpoint:
 - 8pt ordinal scale scored at Day 15, ranging from death to discharged with no limitation on activities and no requirement for home oxygen
- · Sarilumab (Anti IL-6R mAb, aka Kevzara), Regeneron/Sanofi
 - Sarilumab high dose vs. Sariluman low dose vs. placebo control
 - Target enrollment = 400
 - Inclusion criteria Confirmed SARS-CoV-2 infection AND evidence of pneumonia and severe disease (a true efficacy study)
 - Primary endpoints:
 - Time to resolution of fever for at least 48 hours
 - 6pt ordinal scale scored on Day 15, ranging from death to discharged
- mRNA-1273, Moderna
 - Phase I safety/immunogenicity
 - Target enrollment = 45
 - NHV study
 - Cohorts (all n=15, including 4 sentinels):
 - Low dose = 25ug
 - Medium dose = 100ug
 - High dose = 250ug





SARS-CoV-2 Medical Countermeasures Task Force

Christopher Houchens, PhD
Director, Division of Chemical, Biological, Radiological, and
Nuclear Medical Countermeasures
BARDA/ASPR/HHS

SARS-CoV-2 Medical Countermeasures Task Force

Align MCM
development across
interagency partners
to avoid duplication of
effort, identify
opportunities for
synergy, and fill
potential gaps





SARS-CoV-2 MCM Task Force Working Groups

Therapeutics

Vaccines

Diagnostics

Clinical Trials

Sub-Working Groups

Therapeutics Prioritization

Sample Sharing



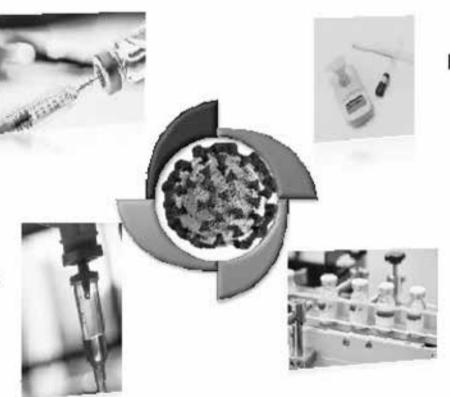
Partnering to Improve Preparedness

VACCINES

- Proven platforms
- Large scale manufacturability
- Speed
- Multiple approaches

THERAPEUTICS

- Platform-based monoclonal antibodies
- Repurposed therapeutics
- Host targeted therapeutics



DIAGNOSTICS

Faster and easier to use More accurate

Earlier Identification

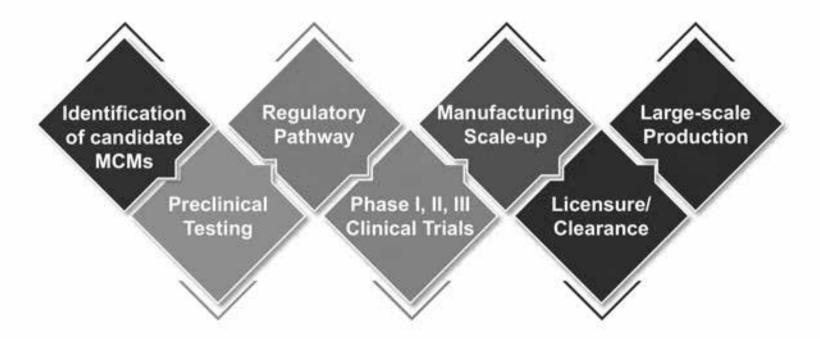
Earlier Treatment

DOMESTIC MANUFACTURING

- Expand production
- Increase fill/ finish capacity

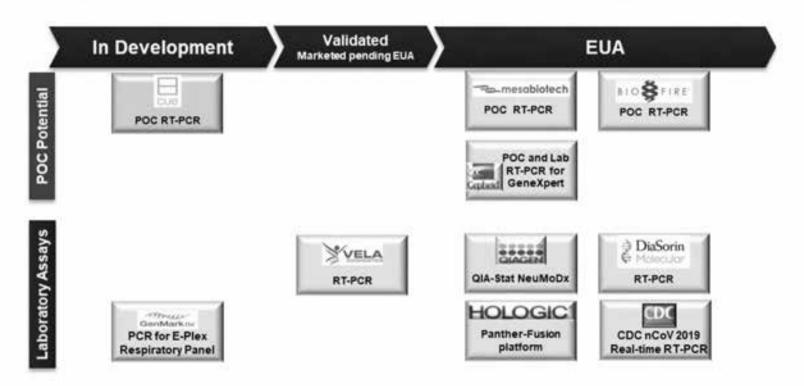


SARS-CoV-2 Interagency Partnerships: Early Development to Large-scale Production of MCMs



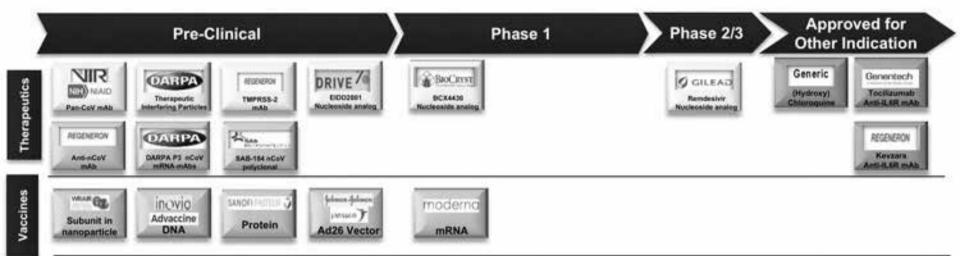


USG-Sponsored SARS-CoV-2 Molecular Diagnostic Tests





USG-Supported SARS-CoV-2 Therapeutics and Vaccines







Wallace, Rodney (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B4654F8F0C0F4623B9E47465E9E1037A-WALLACE, RO
<Rodney.Wallace@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
To: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Subject: RE: I need some guidance, Rick.

Date: 2020/03/17 17:53:14

Priority: Normal
Type: Note

Yes. After the 6:00 call. Another one Dr. K has sent.

Rodney L. Wallace

Director, Detection, Diagnostics, & Devices Infrastructure Division (DDDI)
Biomedical Advanced Research and Development Authority (BARDA)
Office of the Assistant Secretary for Preparedness and Response (ASPR)
US Department of Health and Human Services (HHS)

Mailing Address:

330 Independence Avenue, SW, Room G644

Washington, DC 20201 Office: +1-202-205-3983 Mobile: +(b)(6)

Email: rodney.wallace@hhs.gov

Website: https://MedicalCountermeasures.gov

Open Solicitation: https://www.fbo.gov/spg/HHS/OOS/OASPHEP/BAA-18-100-SOL-00003/listing.html

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Sent: Tuesday, March 17, 2020 4:39 PM To: Wallace, Rodney (OS/ASPR/BARDA) < Rodney. Wallace@hhs.gov> Subject: FW: I need some guidance, Rick. I tried to call (b)(6) get no answer. Can you please call him? From: (b)(6) Sent: Tuesday, March 17, 2020 4:18 PM To: Bright, Rick (OS/ASPR/BARDA) < Rick. Bright@hhs.gov> Subject: I need some guidance, Rick. Rick, This is in reference to the email from Peter Navarro at the White House. Is there a guidance document for the "formal proposal" he mentioned. We're machine builders and mask makers, not white paper writers. Also, if there's little chance of getting a contract, I don't want to waste time on it. As you can imagine, it's crazy here. I don't "need" government business, but want to help my country if I can.
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사람이 가게 하면 하면 하면 하는 것이 되었다면 하는 것이 하면
I'd appreciate any advice you can give me.
I'll bet its nuts at your office, too.
Thanks fellow Covid-19 figher!
hV6)
b)(6)
(h)(6) Internet E-mail Confidentiality
Please note: This message may contain information which is privileged and confidential. If you are not the intended recipient, you
are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you believe you have received this message in error, please forward to (b)(6)
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mensaje por error, por favor reenvielo a (b)(6) (Informacion intencionalmente sin acentos)
Wallace, Rodney (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B4654F8F0C0F4623B9E47465E9E1037A-WALLACE, RO <rodney.wallace@hhs.gov></rodney.wallace@hhs.gov>

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Sent Date: 2020/03/17 17:53:13

Delivered Date: 2020/03/17 17:53:14



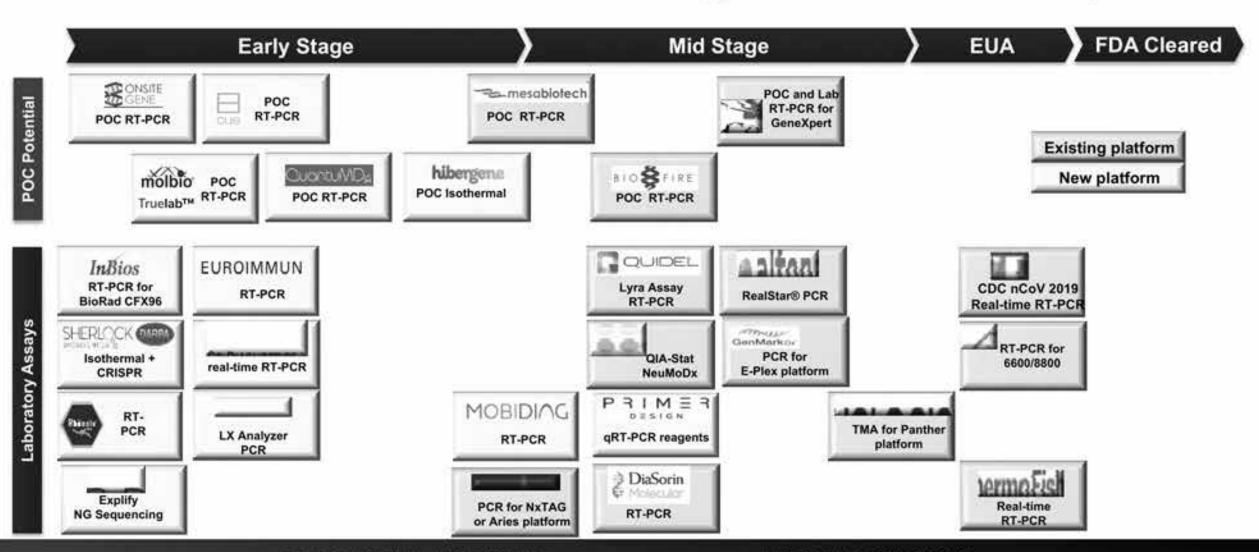
ASPR

SARS-CoV-2 Medical Countermeasures Landscapes

SARS-CoV-2 MCM Task Force



SARS-CoV-2 Molecular Diagnostics Landscape





Coronavirus Therapeutics Landscape







ASPR





m336, m337

m338, m396

MCA1

Pan-CoV



hMS-1

CJ estatorit

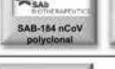
Cell Therapy

Pre-Clinical









SERPIN

SP16 peptide for



NbMS10







Pharmstandard

Umifenovir

Phase 1





Phase 2 Phase 3

GILEAD

Remdesivir

Nucleoside analog





UCSF

Camostat

Host protease









Candidate Drugs for Repurposing

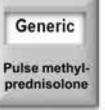
Virus Target







Host Target























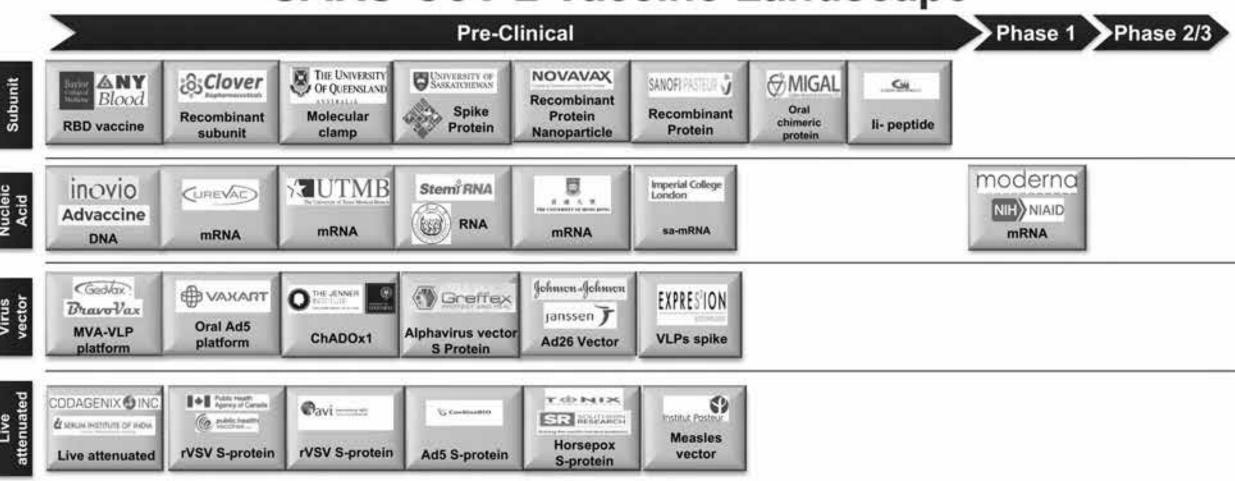








SARS-CoV-2 Vaccine Landscape

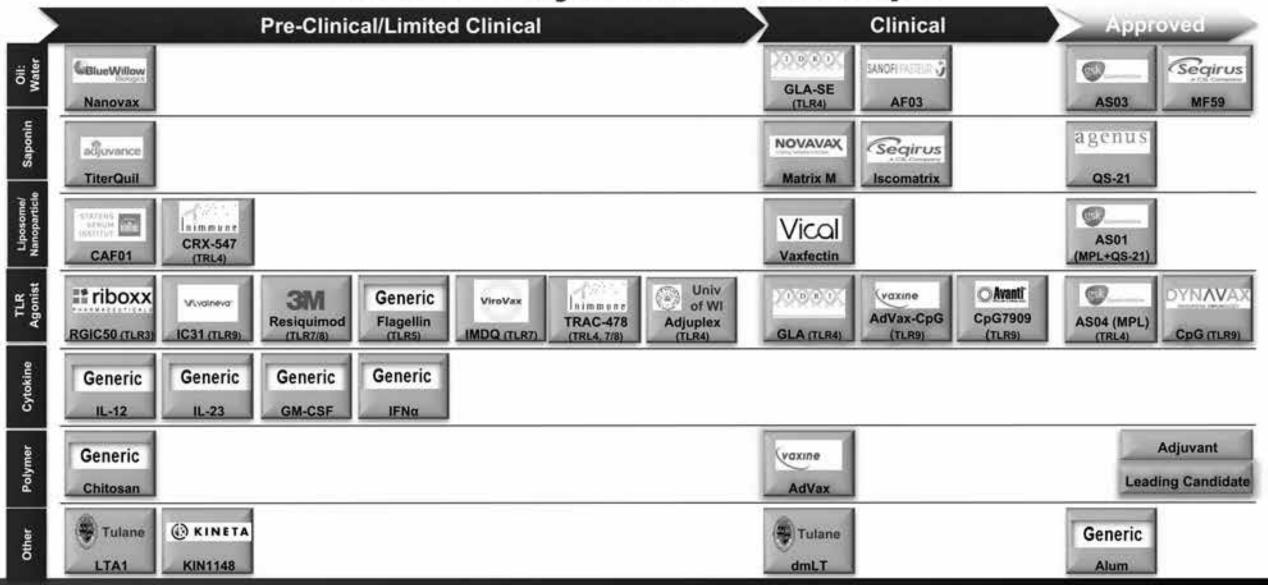






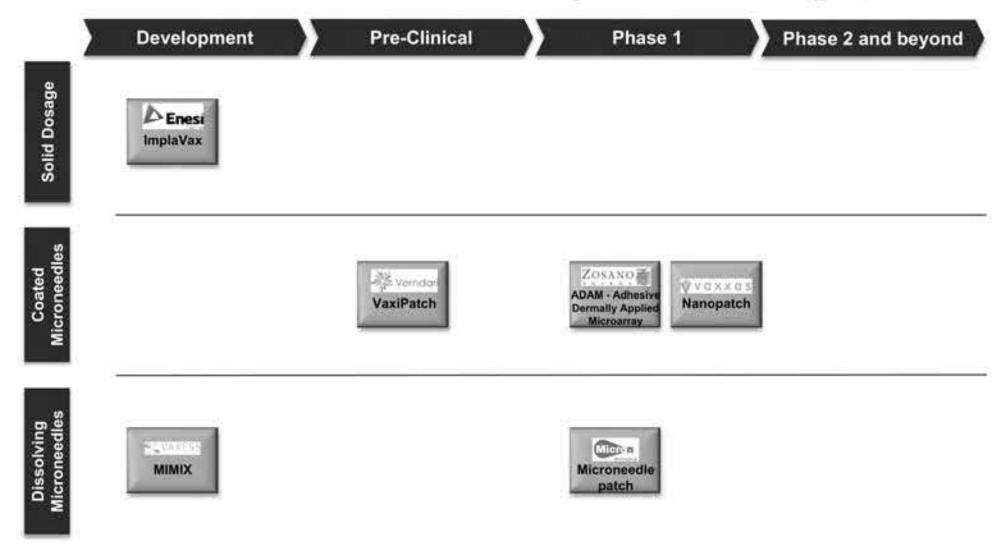


Vaccine Adjuvant Landscape





Alternative Delivery Technologies





MERS-CoV and SARS-CoV Vaccine Landscape

Pre-Clinical

Phase 1

Phase 2 Phase 3

Subunit















Nucleic Acid





Virus vector













Live attenuated











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This PR has gone live.

From: HHS Office of Public Affairs <hhsopa@hhs.gov>

Sent: Sunday, March 29, 2020 7:19 PM

To: Blatner, Gretta (OS/ASPR/BARDA) < Gretta.Blatner@hhs.gov>

Subject: HHS accepts donations of medicine to Strategic National Stockpile as possible treatments for...



News Release

U.S. Department of Health and Human Services 202-205-8117 asprmedia@hhs.gov www.hhs.gov/news Twitter @SpoxHHS

FOR IMMEDIATE RELEASE

Sunday, March 29, 2020

HHS accepts donations of medicine to Strategic National Stockpile as possible treatments for COVID-19 patients

FDA issues emergency use authorization for donated hydroxychloroquine sulfate,

chloroquine phosphate

The U.S. Department of Health and Human Services (HHS) today accepted 30 million doses of hydroxychloroquine sulfate donated by Sandoz, the Novartis generics and biosimilars division, and one million doses of chloroquine phosphate donated by Bayer Pharmaceuticals, for possible use in treating patients hospitalized with COVID-19 or for use in clinical trials. These and other companies may donate additional doses, and companies have ramped up production to provide additional supplies of the medication to the commercial market.

"President Trump is taking every possible step to protect Americans from the coronavirus and provide them with hope," said HHS Secretary Alex Azar. "Scientists in America and around the world have identified multiple potential therapeutics for COVID-19, including chloroquine and hydroxychloroquine. The President's bold leadership and the hard work of FDA and HHS's Assistant Secretary for Preparedness and Response have succeeded in securing this large donation of medicine. We'll continue working around the clock to get American patients access to therapeutics that may help them battle COVID-19, while building the evidence to evaluate which options are effective."

HHS' Office of the Assistant Secretary for Preparedness and Response (ASPR) worked with colleagues within HHS, the companies, the Department of State, and the Department of Homeland Security to secure the donated shipments. Given the importance of understanding the efficacy of these medications for the treatment and prevention of COVID-19, federal agencies, such as the National Institutes of Health and ASPR's Biomedical Advanced Research and Development Authority (BARDA), are working together to plan clinical trials.

The U.S. Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) to BARDA to allow hydroxychloroquine sulfate and chloroquine phosphate products donated to the Strategic National Stockpile (SNS) to be distributed and prescribed by doctors to hospitalized teen and adult patients with COVID-19, as appropriate, when a clinical trial is not available or feasible.

The EUA requires that fact sheets that provide important information about using chloroquine phosphate and hydroxychloroquine sulfate in treating COVID-19 be made available to health care providers and patients, including the known risks and drug interactions.

The SNS, managed by ASPR, will work with the Federal Emergency Management Agency (FEMA) to ship donated doses to states. The SNS does not regularly stock either drug.

Hydroxychloroquine sulfate and chloroquine phosphate are oral prescription drugs approved to treat malaria and other diseases. Although there are no currently approved treatments for COVID-19, both drugs have shown activity in laboratory studies against coronaviruses, including SARS-CoV-2 (the virus that causes COVID-19). Anecdotal reports suggest that these drugs may offer some benefit in the treatment of hospitalized COVID-19 patients. Clinical trials are needed to provide scientific evidence that these treatments are effective.

When the Secretary of Health and Human Services declares that issuance of an EUA is appropriate, the FDA has the regulatory emergency use authority to facilitate access to unapproved medical countermeasures or unapproved uses of approved medical countermeasures needed to prepare for and respond to chemical, biological, radiological and nuclear threats.

An EUA may be issued if the FDA determines that, among other criteria, the known and potential benefits of the product, when used to diagnose, prevent, or treat the identified disease or condition, outweigh the known and potential risks of the product, and there are no adequate, approved, available alternatives. Emergency access to a medical product under an EUA is separate from use of a medical product under an investigational drug application.

The FDA has issued an EUA for <u>multiple</u> diagnostics, for several other medical devices such as respiratory devices and a system for decontaminating them to allow for their reuse, and ventilators and ventilator equipment for the COVID-19 response. This is the first EUA for a drug related to the COVID-19 response.

Sandoz and Bayer are the latest companies <u>stepping up</u> to strengthen the U.S. response to COVID-19, and ASPR is working with additional companies willing to donate doses of hydroxychloroquine and chloroquine. Companies interested in donating goods or services should contact <u>fema-nrcc-iagsupv@fema.dhs.gov</u> or visit https://www.fema.gov/coronavirus/how-to-help.

Use of the donated medications is expected to help ease supply pressures for the drug, and the FDA is also working with manufacturers of chloroquine and hydroxychloroquine to increase production to ensure these drugs also remain available for patients dependent on them for treatment of malaria, lupus and rheumatoid arthritis. Some states and retail pharmacies also have taken action to preserve the supply of these and other drugs for these patients.

In addition to accepting and distributing the donated medicines, HHS is funding clinical trials of two drugs, Kevzara (sarilumab) and remdesivir, and is supporting the earlier development of multiple potential therapeutic treatments, vaccines, and diagnostic tests for COVID-19.

HHS continues to seek partners for COVID-19 medical countermeasures, and offers multiple ways to submit proposals for potential products or technologies.

About HHS, ASPR, and FDA

HHS works to enhance and protect the health and well-being of all Americans, providing for effective health and human services and fostering advances in medicine, public health,

and social services. The mission of ASPR is to save lives and protect Americans from 21st century health security threats, and within ASPR, the Strategic National Stockpile represents the nation's largest stockpile of life-saving pharmaceuticals and medical supplies for use in supplementing state and local supplies in a public health emergency. The FDA protects the public health by assuring the safety, effectiveness, and security of human and veterinary drugs, vaccines and other biological products for human use, and medical devices. The agency also is responsible for the safety and security of our nation's food supply, cosmetics, dietary supplements, products that give off electronic radiation, and for regulating tobacco products.

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Sent Date:	2020/03/29 19:54:16
Delivered Date:	2020/03/29 19:54:18

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/05 03:28:26
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Dr. Eva K Lee <evalee-gatech@pm.me> Sent: Wednesday, March 4, 2020 10:40 PM

To: cmecher@charter.net

Cc: 'Tracey McNamara' <tmcNamara@westernu.edu>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; 'Richard Hatchett' <richard.hatchett@cepi.net>; 'Dr. Eva Lee' ⟨b)(6)
}; 'THOMAS' <THOMAS.WILKINSON@hq.dhs.gov>; 'M.D.'

<MVCALLAHAN@mgh.harvard.edu>; 'James V' <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV)

<duane.caneva@hq.dhs.gov>; 'David' <DMarcozzi@som.umaryland.edu>; 'Tom Bossert' <tom.bossert@me.com>; 'Charity A@CDPH' <Charity.Dean@cdph.ca.gov>; 'Ralph S'

<rbaric@email.unc.edu>; 'Gregory J' <MartinGJ@state.gov>; Walters, William (STATE.GOV)

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4hVA)	; Dodgen, Daniel (OS/ASPR/SP	PR) <daniel.dodgen@hhs.gov>; DeBord, Kristin</daniel.dodgen@hhs.gov>
(OS/ASPR/SPF	R) <kristin.debord@hhs.gov>; Phillips,</kristin.debord@hhs.gov>	Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>;</sally.phillips@hhs.gov>
'Matthew J CI	V USARMY (USA)' √b)(6)	; 'Lisa Koonin'
(b)(6)	; 'MELI SSA' <melissa.harvey@< td=""><td>hq.dhs.gov>; Wolfe, Herbert (DHS.GOV)</td></melissa.harvey@<>	hq.dhs.gov>; Wolfe, Herbert (DHS.GOV)
<herbert.wolf< td=""><td>e@hq.dhs.gov>; alexander.eastman@h</td><td>nq.dhs.gov; "MARIEFRED"</td></herbert.wolf<>	e@hq.dhs.gov>; alexander.eastman@h	nq.dhs.gov; "MARIEFRED"
<mariefred.ev< td=""><td>ans@associates.hq.dhs.gov>; 'jwleduc</td><td>@utmb.edu' <jwleduc@utmb.edu>; Johnson,</jwleduc@utmb.edu></td></mariefred.ev<>	ans@associates.hq.dhs.gov>; 'jwleduc	@utmb.edu' <jwleduc@utmb.edu>; Johnson,</jwleduc@utmb.edu>
Robert (OS/AS	SPR/BARDA) <robert.johnson@hhs.gov< td=""><td>/>; Yeskey, Kevin (OS/ASPR/IO)</td></robert.johnson@hhs.gov<>	/>; Yeskey, Kevin (OS/ASPR/IO)
<kevin.yeskey< td=""><td>@hhs.gov>; Disbrow, Gary (OS/ASPR/E</td><td>BARDA) <gary.disbrow@hhs.gov>; Redd, John</gary.disbrow@hhs.gov></td></kevin.yeskey<>	@hhs.gov>; Disbrow, Gary (OS/ASPR/E	BARDA) <gary.disbrow@hhs.gov>; Redd, John</gary.disbrow@hhs.gov>
(OS/ASPR/SPF	R) <john.redd@hhs.gov>; Hassell, Dav</john.redd@hhs.gov>	vid (Chris) (OS/ASPR/IO) <david.hassell@hhs.gov>;</david.hassell@hhs.gov>
Hamel, Joseph	h (OS/ASPR/IO) <joseph.hamel@hhs.go< td=""><td>ov>; 'Luciana' <lborio@iqt.org>; 'Dan'</lborio@iqt.org></td></joseph.hamel@hhs.go<>	ov>; 'Luciana' <lborio@iqt.org>; 'Dan'</lborio@iqt.org>
<dhanfling@i< td=""><td>qt.org>; eric.mcdonald@sdcounty.ca.g</td><td>ov; 'David' <david.wade@hq.dhs.gov>;</david.wade@hq.dhs.gov></td></dhanfling@i<>	qt.org>; eric.mcdonald@sdcounty.ca.g	ov; 'David' <david.wade@hq.dhs.gov>;</david.wade@hq.dhs.gov>
david.a.tarant	tino@cbp.dhs.gov; david.gruber@dshs.	texas.gov; 'SANGEETA'
<sangeeta.kau< td=""><td>ushik@hq.dhs.gov>; Lee, Scott (OS/ASP</td><td>R/EMMO) <scott.lee@hhs.gov>; 'Larry G'</scott.lee@hhs.gov></td></sangeeta.kau<>	ushik@hq.dhs.gov>; Lee, Scott (OS/ASP	R/EMMO) <scott.lee@hhs.gov>; 'Larry G'</scott.lee@hhs.gov>
<padgetlg@s< td=""><td>tate.gov>; 'Ryan Morhard' <ryan.morh< td=""><td>ard@weforum.org>; 'Steven Jt(tCHFStDPH)'</td></ryan.morh<></td></padgetlg@s<>	tate.gov>; 'Ryan Morhard' <ryan.morh< td=""><td>ard@weforum.org>; 'Steven Jt(tCHFStDPH)'</td></ryan.morh<>	ard@weforum.org>; 'Steven Jt(tCHFStDPH)'
<steven.stack< td=""><td>@ky.gov>; Adams, Jerome (HHS/OASH)</td><td><jerome.adams@hhs.gov>; Fantinato, Jessica</jerome.adams@hhs.gov></td></steven.stack<>	@ky.gov>; Adams, Jerome (HHS/OASH)	<jerome.adams@hhs.gov>; Fantinato, Jessica</jerome.adams@hhs.gov>
(USDA.GOV) < <danny.shiau< td=""><td></td><td>chelle.colby@usda.gov>; 'danny.shiau@usuhs.edu'</td></danny.shiau<>		chelle.colby@usda.gov>; 'danny.shiau@usuhs.edu'

Subject: Re: Red Dawn Rising Start Feb 29

1. New Hampshire coronavirus patient broke quarantine to attend event in Vermont

https://thehill.com/policy/healthcare/486040-new-hampshire-coronavirus-patient-brokequarantine-to-attend-dartmouth

Perhaps citizens don't think so much about the virus because they have been told it's like a mild flu and it is not serious or deadly. There may be a general misunderstanding for such an action. It is very unfortunate.

2. Princess Cruise from Hawaii

Yet another cruise with one infected covid-19 patient. I wonder what's going to happen when it is diverted to arrive in San Francisco Thursday night instead of marching onto Mexico, its original destination.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message

Updated Italy case study.	
From: "Tracey McNamara" To: "Dr. Eva K Lee", "Carter Mecher", Richard (OS/ASPR/EMMO)" Cc: "Richard Hatchett", "Dr. Eva Lee", "THOMAS", "M.D.", "James V", Duane (DH. "David", "Tom Bossert", "Charity A@CDPH", "Ralph S", "Gregory J", William (STATE.GOV)", "CAMERON", "[hu/6]]. Daniel (OS/ASPR/SPPR)", (OS/ASPR/SPPR)", Sally (OS/ASPR/SPPR)", "Matthew J CIV USARMY (USA)", "Koonin", "MELISSA", Herbert (DHS.GOV)", "alexander.eastman@hq.dhs.gov", "MARIEFRED", "jwleduc@utmb.edu", Robert (OS/ASPR/BARDA)", Kevin (OS/ASPR/Gary (OS/ASPR/BARDA)", John (OS/ASPR/SPPR)", David (Chris) (OS/ASPR/IO)" (OS/ASPR/IO)", "Luciana", "Dan", "eric.mcdonald@sdcounty.ca.gov", "David", "david.a.tarantino@cbp.dhs.gov", "david.gruber@dshs.texas.gov", "SANGEETA", S (OS/ASPR/EMMO)", "Larry G", "Ryan Morhard", "Steven Jt(tCHFStDPH)", Jerom (HHS/OASH)", Jessica (USDA.GOV)", "DC", "danny.shiau@usuhs.edu" Sent: Wednesday March 4 2020 7:38:50PM Subject: Re: Red Dawn Rising Start Feb 29	Kristin 'Lisa SPR/IO)", ", Joseph
So this suggests the old "sweat lodge" approach might work? Sweat it out of them? I especially since SARS loved air conditioning. Tracey	Interesting,
especially since SARS loved air conditioning.	Interesting,
especially since SARS loved air conditioning. Tracey	

MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV)

<herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov

<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Johnson, Robert (OS/ASPR/BARDA)

<<u>Robert.Johnson@hhs.gov</u>>; Yeskey, Kevin (OS/ASPR/IO) <<u>Kevin.Yeskey@hhs.gov</u>>; Disbrow,

Gary (OS/ASPR/BARDA) < Gary Disbrow@hhs.gov >; Redd, John (OS/ASPR/SPPR)

<<u>John.Redd@hhs.gov</u>>; Hassell, David (Chris) (OS/ASPR/IO) <<u>David.Hassell@hhs.gov</u>>; Hamel,

Joseph (OS/ASPR/IO) < Joseph. Hamel@hhs.gov >; Luciana < LBorio@iqt.org >; Dan

<DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov <eric.mcdonald@sdcounty.ca.gov>;

David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov

david.gruber@dshs.texas.gov

<<u>david.gruber@dshs.texas.gov</u>>; SANGEETA <<u>sangeeta.kaushik@hq.dhs.gov</u>>; Lee, Scott

(OS/ASPR/EMMO) <<u>Scott.Lee@hhs.gov</u>>; Larry G <<u>PadgetLG@state.gov</u>>; Ryan Morhard

<Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams,

Jerome (HHS/OASH) < Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV)

<<u>iessica.fantinato@usda.gov</u>>; DC <<u>michelle.colby@usda.gov</u>>; <u>danny.shiau@usuhs.edu</u>

<danny.shiau@usuhs.edu>

Subject: RE: Red Dawn Rising Start Feb 29

Am tracking this really valuable thread among the best of the best....

Not trying to clog anyone's in box but below caught my attention enough to share w/ the group.

Below abstract not peer reviewed. Wouldn't take it to the bank, but haven't seen any prior studies on alternate care site impact on mortality. Gratefully, not many opportunities to study this.

Caught my attention in that it showed decrease in mortality once they implemented the makeshift hospitals. Odd they added the ambient temp in same abstract, but tracks w/others I've seen on the temp changes.

Rick

Sent from my iPhone

Begin forwarded message:

From: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>

Date: March 2, 2020 at 5:43:13 PM EST

Subject: medRxiv: The Effects of "Fangcang, Huoshenshan, and Leishenshan" Makeshift Hospitals and

Temperature on the Mortality of COVID-19

The Effects of "Fangcang, Huoshenshan, and Leishenshan" Makeshift Hospitals and Temperature on the Mortality of COVID-19

Yuwen Cai, Tianlun Huang Sr., Xin Liu Sr., Gaosi Xu Sr.

doi: https://doi.org/10.1101/2020.02.26.20028472

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

- Abstract
- · Info/History
- Metrics
- . .
- . .
- · Preview PDF

Abstract

Background In December 2019, a novel coronavirus disease (COVID-19) broke out in Wuhan, China, however, the factors affecting the mortality remain unclear. Methods Thirty-two days of data that were shared by China National Health Commission and China Weather Net were collected using standard forms. The difference in the mortality of confirmed and severe cases before and after the use of Fangcang, Huoshenshan, and Leishenshan makeshift hospitals (MSHs) was tested using Mann-Whitney U test. We also studied whether air temperature (AT) could affect the above outcomes of COVID-19 cases by performing Spearman analysis. Results The mortality of confirmed cases was significantly decreased both in Wuhan (U = 1, P <0.001) and Hubei (U = 0, P <0.001), while in non-Hubei regions, as a contrast, the mortality of confirmed cases remained unchanged (U = 40, P = 0.139). However, another eight days later, changes in the mortality in non-Hubei regions also became significant (U = 73, P = 0.039). Mortality of confirmed cases was found to be significantly correlated with temperature both in Wuhan (r = -0.441, P = 0.012) and Hubei (r = -0.440, P = 0.012). Conclusions Our findings indicated that both the use of MSHs and the rise of AT were beneficial to the survival of COVID-19 cases.

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From: Dr. Eva K Lee <evalee-gatech@pm.me> Sent: Wednesday, March 4, 2020 5:48 PM To: Carter Mecher <cmecher@charter.net> Cc: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee (h)/6) ; THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;/b)/6\ Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) THINKS ; Lisa Koonin (h)/6) <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica Hunt, Richard (OS/ASPR/EMMO) < Richard. Hunt@hhs.gov> Subject: RE: Red Dawn Rising Start Feb 29

I wonder maybe everyone is waiting for the 8 billion funds before they are ready to get into the battlefield against covid-19. I hope they are seeing it as a system where we need to take care of pre-emptive measures (which the optimal timing has past), rapid screening (same too past the optimal timing), treatment resources, and vaccien design. Lots of catch up to do even with 8 billion dollars. Hopefully they can optimize wisely.

evalee-gatech@pm.me

https://newton.isye.gatech.edu/DrLee/
mobile:(b)(6)

Sent with ProtonMail Secure Email.

------ Original Message -----On Wednesday, March 4, 2020 5:33 PM, Carter Mecher <cmecher@charter.net>wrote:

We don't have the same brake pedal to push.

From: Dr. Eva K Lee

Sent from Mail for Windows 10

Sent: Wednesday, March 4, 2020 5:14 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

I think China is a bit late in taking the necessary actions and then they slammed the brake hard and tried to stop it. It's a huge brake -- of complete seal off of the city and massive number of

beds and military medical providers introduced. They missed the early sign because noone wants to believe that it would spiral out of control. Their previous SARS experience may have made them think that it was not as infectious. Oh well, theirs (their actions) is history. Now it is ours to make.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: {(b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 4:52 PM, Carter Mecher <cmecher@charter.net>wrote</cmecher@charter.net>

And an article that Nathaniel shared that suggests that what happened in Wuhan was mitigated (get your head around that). If that was mitigated, think of what an unmitigated outbreak might look like.

https://protect2.fireeye.com/url?k=9787f663-cbd2ffb3-9787c75c-0cc47a6a52de-d2af073c8c710176&u=https://protect2.fireeye.com/url?k=700954cd-2c5d4db1-700965f2-0cc47adc5fa2-

286c91bd092e46ea&u=https://www.worldpop.org/resources/docs/COVID_NPI/WorldPop_COV ID-19_outbreak.pdf

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:50 PM

To: Dr. Eva K Lee

Cc: <u>Tracey McNamara</u>; <u>Richard Hatchett</u>; <u>Dr. Eva Lee</u>; <u>THOMAS</u>; <u>M.D.</u>; <u>James V</u>; <u>Duane</u>; <u>David</u>; <u>Tom Bossert</u>; <u>Charity A@CDPH</u>; <u>Ralph S</u>; <u>Gregory J</u>; <u>William</u>; <u>CAMERON</u>;

(D)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov
Subject: RE: Red Dawn Rising Start Feb 29
Resending Richard's note below and links to articles (we don't need to get fancy, we need to do what works):
Critically important article on how China succeeded in suppressing transmission -
https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirus-they-may-not-work-other-countries
The referenced report is at
https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf
Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.
Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:43 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

(b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Pasted Washington guidance below. This will not reduce community transmission (not enough). Protective sequestration.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 4:09 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

[b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;
Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;
david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

What if the players get sick (with covid-19)? So that would become a big scandals on government's decision.

I think it is better for us (in the US) to think that it is a new infectious disease and we don't have any cure nor MCM nor much knowledge. Let's be cautious and nail it early by putting in precautionary NPI and various steps so that we feel good about being a step ahead of the virus, instead of chasing after it as in Italy, S. Korea. It is again a good time to test how well we can rally business to do the same. I don't see how the government leaders have anything to lose to put in the appropriate measures now.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 2:57 PM, Carter Mecher cmecher@charter.net >wrote:
Look at the desperation in Italy.
Italian government orders all sporting events to take place without fans until April 3 due to coronavirus
Italy is considering to put more towns in northern Italy on lockdown due to coronavirus
Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:36 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;

Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;

david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;

David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;

Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;

david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

[by(6)] Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Jerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. if not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile:(b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 7:44 AM, Carter Mecher < cmecher@charter.net > wrote:

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM

Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; John Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 03, 2020 2:27 AM
To: Richard Hatchett < richard.hatchett@cepi.net>; Tracey McNamara
<tmcNamara@westernu.edu>; Dr. Eva Lee √b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William
<WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;
                  Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin
(b)(6)
(OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
VhV(G)
                             >; Lisa Koonin (b)(6)
                                                               : MELISSA
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
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Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; Lisa Sonin; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara < tmcNamara@westernu.edu>; Dr. Eva Lee < eva.evalee.lee64@gmail.com>

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <iames.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 7: Lisa Koonin (b)(6) >: MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric,McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colbv@usda.gov>; dannv.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evaleegatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Karitan (OS/ASPR/SPPR); Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-trackcoronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee (b)(6) : Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;{b)(6)
; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) >; Lisa Koonin (b)(6) T: MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <a href="mailto: <a href="mailt <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Fore Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric

(San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6)	-wrote:
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Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=96405187-ca155857-964060b8-0cc47a6a52de-

> 9666b9ffd5ebf62b&u=https://protect2.fireeye.com/url?k=a7a4cc1a-fbf0d566-a7a4fd25-0cc47adc5fa2-

3b82530c16cff920&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (b)(6)	
Sent: Monday, March 2, 2020 7:45:51 AM	
To: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D.	
<mvcallahan@mgh.harvard.edu>; Tracey McNamara</mvcallahan@mgh.harvard.edu>	
<tmcnamara@westernu.edu>; James V <james.lawler@unmc.edu>;</james.lawler@unmc.edu></tmcnamara@westernu.edu>	
Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>	
<dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>	
<tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>	
<charity.dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Rio</rbaric@email.unc.edu></charity.dean@cdph.ca.gov>	chard
Hatchett <richard.hatchett@cepi.net>; Gregory J <martingj@state.ge< th=""><th></th></martingj@state.ge<></richard.hatchett@cepi.net>	
William < WaltersWA2@state.gov>; CAMERON	timber . T
<cameron.hamilton@hq.dhs.gov>; (b)(6)</cameron.hamilton@hq.dhs.gov>	
(b)(s) ; Daniel (OS/ASPR/SPPR)	
<daniel.dodgen@hhs.goy>; Kristin (OS/ASPR/SPPR)</daniel.dodgen@hhs.goy>	
<kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov>	
<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>	
(b)(6) ; Lisa Koonin	
(FUE) ; MELISSA <melissa.harvey@hq.dhs.gov>;</melissa.harvey@hq.dhs.gov>	
HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov>	
<alexander.eastman@hq.dhs.gov>; MARIEFRED</alexander.eastman@hq.dhs.gov>	
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu</mariefred.evans@associates.hq.dhs.gov>	
<pre><imarierred.evans@associates.inq.diis.gov>, jwieduc@utmb.edu</imarierred.evans@associates.inq.diis.gov></pre> <pre><jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)</jwleduc@utmb.edu></pre>	
<robert.johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary</kevin.yeskey@hhs.gov></robert.johnson@hhs.gov>	
(OS/ASPR/BARDA) <gary.disbrow@hhs.gov>; John (OS/ASPR/SF</gary.disbrow@hhs.gov>	opp\
	TK)
< <u>John.Redd@hhs.gov</u> >; David (Chris) (OS/ASPR/IO)	
< <u>David.Hassell@hhs.gov</u> >; Joseph (OS/ASPR/IO)	
< <u>Joseph.Hamel@hhs.gov</u> >; Luciana < <u>LBorio@iqt.org</u> >; Dan	
< <u>DHanfling@iqt.org</u> >; Eric (San Diego County)	8000
< Eric.McDonald@sdcounty.ca.gov >; David < david.wade@hq.dhs.go	v>;
DAVID A < <u>david.a.tarantino@cbp.dhs.gov</u> >;	
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;</david.gruber@dshs.texas.gov>	
SANGEETA < sangeeta kaushik@hq.dhs.gov>; Scott	- 23
< <u>Scott.Lee@hhs.gov</u> >; Larry G < <u>PadgetLG@state.gov</u> >; Ryan Morha	ard
< <u>Ryan.Morhard@weforum.org</u> >; Steven Jt(tCHFStDPH)	
<steven.stack@ky.gov>; tJerome (HHS/OASH)</steven.stack@ky.gov>	
<jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>	
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu</michelle.colby@usda.gov>	
<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></danny.shiau@usuhs.edu>	
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov>	
; Carter Mecher < cmecher@charter.n	et>

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@p	m.me_
https://newton.isy	e.gatech.edu/DrLee/
mobile: (h)/6)	
(h)(6)	

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert_johnson@hhs.gov></robert_johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Sent Date:	2020/03/05 03:28:25
Delivered Date:	2020/03/05 03:28:26



CONR-1AF (AFNORTH)

Expeditionary Ground Medical Support

Informational Brief



This briefing is: UNCLASSIFIED

Homeland First

OPR: 1AF/SG // CAO: 9 Mar 20



Air Transportable Clinic (ATC)

- Provides front-line medical care for a PAR of up to 500
- Designed to support flying squadrons and specialized operational squadrons (Red Horse, Air Control Squadrons)
 - Typically deploys with Squadron Medical Elements (SMEs)
 - May deploy with a Medical Aid Station Team (FFGKN), Flight Medicine Team (FFDAB), Primary Care Team (FFPCM), or PAM Team
- ATC equipment package (FFLGE) supports 30day operation in austere conditions with minimal resupply
 - 1 pallet

- Provides limited outpatient, clinical, and emergency medical care (trauma, cardiac stabilization)
- Can hold 2 trauma patients up to 12 hours or 2 noncritical patients up to 48 hours







Expeditionary Medical Support

Rapidly deployable, tailored medical response supporting the full range of military operations

- Provides individual bed-down and theater-level medical services for deployed forces or select population groups
- Provides forward stabilization, primary care, dental services, and force health protection
- Prepares casualties for evacuation to next level of care

Light, lean, and life-saving

- Modular build-up of capabilities organized into 3 increments: EMEDS Health Response Team (HRT), EMEDS+10, EMEDS+25
- Can operate in an austere environment up to 10 days until resupply (requires ECS/BOS)
- Requires patient evacuation support for mission success









EMEDS Deployable Force Modules

EMEDS HRT

Composition 40 PAX, 10 pallets

Population at Risk Up to 3,000*

Care Level Role 2E 4 holding beds (24 hrs)

> FOC Timeline 12 hours

Footprint 5 tents, 17,000 sq ft

EMEDS+10

Composition 67 PAX, 21 pallets

Population at Risk 3,000 – 5,000

> Care Level Role 2E 10 beds

FOC Timeline

36 hours

Footprint 8 tents, 26,000 sq ft

EMEDS+25

Composition 97 PAX, 28 pallets

Population at Risk 5,000 – 6,500

> Care Level Role 3 25 beds

FOC Timeline 60 hours

Footprint 11 tents, 40,000 sq ft





EMEDS HRT Capability

- Provides surgical care, prevention, acute intervention, primary care, and dental services for a PAR of up to 3,000*
 - Initial medical capability within 15 minutes of arrival
 - ER: 2 hours
 - · OR: 4 hours
 - · ICU: 6 hours
 - FOC: 12 hours
- Clinical care tailored to the mission
 - Specialty care and IHS added for HA/DR
 - PAM augmentation added for combat operations
- Patient evacuation required within 24 hours



Composition 40 PAX, 10 pallets

Population at Risk Up to 3,000

Care Level Role 2E 4 holding beds (24 hrs)

> FOC Timeline 12 hours

Footprint 5 tents, 17,000 sq ft



Homeland First

Planning factors for HA/DR operations based on patient throughput – 350 patients per day with a surge capacity of 500.



EMEDS+10 Capability

- Provides theater hospitalization for a PAR of 3,000-5,000
- Builds on EMEDS HRT to provide a 10-bed medical/surgical capability
- Additional capabilities include:
 - Complex medical and surgical care
 - Enhanced critical care
 - Laboratory services
 - Preventive medicine, administration, and medical logistics augmentation
 - Deployable oxygen generation system



Composition 67 PAX, 21 pallets

Population at Risk 3,000 – 5,000

> Care Level Role 2E 10 beds

FOC Timeline 36 hours

Footprint 8 tents, 26,000 sq ft





EMEDS+25 Capability

- Provides theater hospitalization for a PAR of 5,000-6,500
- Builds on EMEDS HRT and EMEDS+10 to provide a 25-bed medical/surgical capability
- Additional capabilities include:
 - Complex medical and surgical care
 - Enhanced dietary services, such as enteral feeding, supplements, nutritional assessments

Expanded emergency/trauma care, dental care, and

ancillary services

- Medical C2, medical logistics, and patient admin augmentation
- Deployable Oxygen Generation System

Composition 97 PAX, 28 pallets

Population at Risk 5,000 - 6,500

> Care Level Role 3 25 beds

FOC Timeline 60 hours

Footprint 11 tents, 40,000 sq ft





Air Force Theater Hospital (AFTH)

- Provides dedicated in-theater and enroute support to a PAR of 6,500+
- Largest deployed AF medical facility
- Located at critical, strategic air hubs
- Provides expanded medical ward, surgical, and critical care capability
- Provides enhanced medical/surgical subspecialties, ancillary services, administration, and logistics support

58 beds – 12 ICU beds, 46-bed medical/surgical ward Approximately 260 personnel 6 operating room tables Plug-and-play subspecialty teams





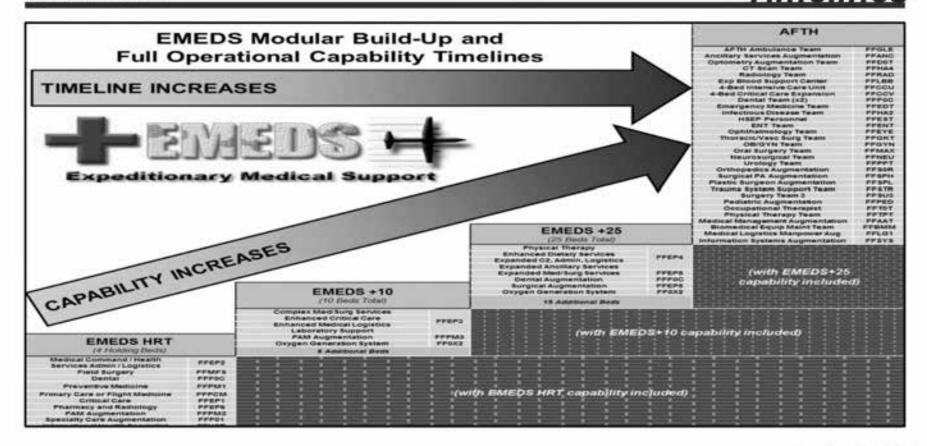




Build-Up Capability Timelines



EMEDS Modular Build-Up Capability Timelines







EMEDS Needs BOS

The AFMS Does Not Bring Base Operating Support

- AFMS deployable capabilities (Unit Type Codes-UTCs) have initial Class
 VIII supplies to operate for 7 30 days; UTC Dependent
- They DO NOT bring billeting, food, water, shower, or latrine facilities
- DO NOT have ability to provide security/facility FP
- Requires comm lines (i.e. IM/IT and Land Line), external to EMEDS
 - Medical UTCs have internal cabling and expertise to wire comms internal of EMEDS





Equipment Movement

- EMEDS HRT
 - 10 pallets

- 2 C-130s
- 1 C-17



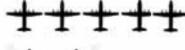
- EMEDS+10
 - 21 pallets

- 4 C-130s
- 2 C-17s



- EMEDS+25
 - 28 pallets

- 5 C-130s
- 2 C-17s



**

- C-130 holds 6 pallets
- C-17 holds 18 pallets





AFNORTH SG POCs

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Lt Col Tom Doker

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Capt Lee Laughridge





Convalescent plasma as a potential therapy for COVID-19



The outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which originated in Wuhan, China, has become a major concern all over the world. The pneumonia induced by the SARS-CoV-2 is named coronavirus disease 2019 (COVID-19). By Feb 22, 2020, this virus has affected more than 77700 people worldwide and caused more than 2300 deaths. To date, no specific treatment has been proven to be effective for SARS-CoV-2 infection. Apart from supportive care, such as oxygen supply in mild cases and extracorporeal membrane oxygenation for the critically ill patients, specific drugs for this disease are still being researched. In the USA, the first patient infected with SARS-CoV-2 was treated by supportive care and intravenous remdesivir, before the patient recovered and was discharged. However, randomised clinical trials are needed to evaluate the safety and efficacy of remdesivir in the treatment of COVID-19.

Convalescent plasma or immunoglobulins have been used as a last resort to improve the survival rate of patients with SARS whose condition continued to deteriorate despite treatment with pulsed methylprednisolone. Moreover, several studies showed a shorter hospital stay and lower mortality in patients treated with convalescent plasma than those who were not treated with convalescent plasma.24 In 2014, the use of convalescent plasma collected from patients who had recovered from Ebola virus disease was recommended by WHO as an empirical treatment during outbreaks. A protocol for the use of convalescent plasma in the treatment of Middle East respiratory syndrome coronavirus was established in 2015.6 In terms of patients with pandemic 2009 influenza A H1N1 (H1N1pdm09) virus infection, a prospective cohort study by Hung and colleagues showed a significant reduction in the relative risk of mortality (odds ratio 0-20 [95% CI 0:06-0:69], p=0:01) for patients treated with convalescent plasma.7 Additionally, in a subgroup analysis, viral load after convalescent plasma treatment was significantly lower on days 3, 5, and 7 after intensive care unit admission. No adverse events were observed. A multicentre, prospective, double-blind, randomised controlled trial by Hung and colleagues showed that using convalescent plasma from patients who recovered from the influenza A H1N1pdm09 virus infection to treat patients with severe influenza A H1N1 infection was associated with a lower viral load and reduced mortality within 5 days of symptom onset." A meta-analysis by Mair-Jenkins and colleagues showed that the mortality was reduced after receiving various doses of convalescent plasma in patients with severe acute respiratory infections, with no adverse events or complications after treatment. Another meta-analysis by Luke and colleagues identified eight studies involving 1703 patients with 1918 influenzapneumonia from 1918 to 1925 who received an infusion of influenza-convalescent human blood products, which showed a pooled absolute reduction of 21% (95% CI 15-27; p<0.001) in the overall crude case-fatality rate at low risk of bias."

One possible explanation for the efficacy of convalescent plasma therapy is that the antibodies from convalescent plasma might suppress viraemia. Schoofs and colleagues reported that 3BNC117-mediated immunotherapy, which is a broad neutralising antibody to HIV-1, enhances host humoral immunity to HIV-1.15 An in vivo trial also showed that the effects of this antibody were not only limited to free viral clearance and blocking new infection, but also included acceleration of infected cell clearance.12 Viraemia peaks in the first week of infection in most viral illnesses. The patient usually develops a primary immune response by days 10-14, which is followed by virus clearance.1 Therefore, theoretically, it should be more effective to administer the convalescent plasma at the early stage of disease." However, other treatments might have an effect on the relationship between convalescent plasma and antibody level, including antiviral drugs, steroids, and intravenous immunoglobulin."

According to WHO,¹¹ management of COVID-19 has mainly focused on infection prevention, case detection and monitoring, and supportive care. However, no specific anti-SARS-CoV-2 treatment is recommended because of the absence of evidence. Most importantly, the current guidelines emphasise that systematic corticosteroids should not be given routinely for the treatment of COVID-19, which was also the recommendation in a a Commnt in The Lancet.¹⁴ Evidence shows that convalescent plasma from patients who have recovered from viral infections can be used as a treatment without the occurrence of severe adverse events. Therefore, it might be worthwhile to test the

Lenort Infect Dis 2020 Published Online February 22, 2020 https://doi.org/10.1016/ S1473-3099(20)30141-9

safety and efficacy of convalescent plasma transfusion in SARS-CoV-2-infected patients.

This work is supported by grants from the Clinical Medical Study Program of Children's Hospital of Chongging Medical University, China (YBXM-2019-013). We declare no competing intensits.

Long Chen, Jing Xiong, Lei Bao, "Yuan Shipetshi530@vip.163.com

Department of Neonatology, Ministry of Education Key Laboratory of Child Development and Disorders; National Clinical Research Center for Child Health and Disorders; China International Science and Technology Cooperation base of Child development and Critical Disorders; Children's Hospital of Chongging Medical University; Chongging Key Laboratory of Pediatrics, Chongging, 400014, China (LC, DK, UR, YS)

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Disbrow, Gary (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0FD5845DEFDA4DC0BB45F8FAC629CF09-DISBROW, GA
<Gary.Disbrow@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Subject: Re: NEJM Remdesivir

Date: 2020/04/12 10:32:16

Priority: Normal

Type: Note

Thought you sent email that FDA has different view of the results. Maybe Bob Walker

Sent from my iPhone

On Apr 12, 2020, at 10:30 AM, Bright, Rick (OS/ASPR/BARDA) <Rick.Bright@hhs.gov>wrote:

I have not had a discussion with FDA on Remdesivir. Perhaps that was the clinical group? Or the MCM TF assessment that sent a summary recently. I will look for the summary in my email.

From: Gary Disbrow <Gary.Disbrow@hhs.gov>
Date: Sunday, April 12, 2020 at 10:17 AM

To: "Bright, Rick (OS/ASPR/BARDA)" <Rick.Bright@hhs.gov>

Subject: FW: NEJM Remdesivir

Can you forward the group your conversation with FDA regarding Remdesivir. It is currently be evaluated in a true RCT, blinded placebo control and the FDA will not grant EUA.

Gary

Gary L. Disbrow Ph.D.

Deputy Assistant Secretary Director, Medical Countermeasure Programs Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-260-0899 Mobile: (/L)/(6) Fax: 202-205-0873

email: Gary.Disbrow@HHS.gov

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From: Kadlec, Robert (OS/ASPR/IO) <Robert.Kadlec@hhs.gov>

Sent: Sunday, April 12, 2020 9:47 AM

To: Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) < Kevin.Yeskey@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) < Rick.Bright@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; Adams, Steven A. (ASPR/SNS) < saa1@cdc.gov>; mvcallahan@mgh.harvard.edu; Lawler, James V <james.lawler@unmc.edu>

Subject: NEJM Remdesivir

Here is the NEJM about compassionate use of Remdesivir. I would benefit from what you all think about the data

https://www.nejm.org/doi/pdf/10.1056/NEJMoa2007016?articleTools=true

Bob

Sender:	Disbrow, Gary (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0FD584SDEFDA4DC0BB45F8FAC629CF09-DISBROW, GA <gary.disbrow@hhs.gov></gary.disbrow@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Sent Date:	2020/04/12 10:32:12
Delivered Date:	2020/04/12 10:32:16

Houchens, Christopher (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE From: GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7AC94A574BD04528B7C91BBD61893975-HOUCHENS, C < Christopher. Houchens@hhs.gov> Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga <Gary.Disbrow@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0851e89240324306b78740a4a60745e2-Johnson, Ro To: <Robert.Johnson@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <Rick.Bright@hhs.gov>; Walker, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a02e128c60f4a7195532a1545af9556-Walker, Rob <Robert.Walker@hhs.gov> Subject: RE: FOUO INFORMATION Date: 2020/04/12 12:47:31 Priority: Normal Type: Note

Attached and below.

Bullets from conversation just now with John Farley at FDA:

- Remdesivir
- a. FDA is aware of results from the Chinese study in severe patients, top line data (in Mandarin only). FDA trying to obtain from Gilead. Verbal report is negative study in the 236 enrolled (of 453 target). No difference in ordinal scale outcomes or in mortality (14% vs.13%).
- Expanded access manuscript in 53 patients to be published by NEJM later today. FDA not supportive
 of their analyses, and are aware of analyses in larger cohort of 163 patients where mortality is higher
 than reported in the manuscript (22%).
- c. FDA not planning to move forward with EUA at this time. They are still waiting on a few things from Gilead related to written topline data.

Christopher Houchens, PhD

Director (Acting) Division of CBRN Countermeasures

Biomedical Advanced Research and Development Authority (BARDA)

Office of Assistant Secretary for Preparedness and Response (ASPR)

Department of Health and Human Services (DHHS)

Office: 202-205-3633 BB: \$b\(6\)

Christopher.houchens@hhs.gov

From: Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>

Sent: Sunday, April 12, 2020 10:54 AM

To: Johnson, Robert (OS/ASPR/BARDA) <Robert Johnson@hhs.gov>; Houchens, Christopher (OS/ASPR/BARDA) <Christopher.Houchens@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA)

<Gary.Disbrow@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) <Rick.Bright@hhs.gov>; Walker, Robert

(OS/ASPR/BARDA) <Robert.Walker@hhs.gov>

Subject: FOUO INFORMATION

Team,

When Gilead released their press release in advance of the NEJM article, I could have sworn that someone sent an email that FDA was not as impressed with the data and would not approve the EUA.

Does anyone have that email?

Thanks

Gary

Gary L. Disbrow Ph.D.

Deputy Assistant Secretary

Director, Medical Countermeasure Programs

Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

email: Gary.Disbrow@HHS.gov

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Recipient:	Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga <gary_disbrow@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0851e89240324306b78740a4a60745e2-Johnson, Ro <robert_johnson@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick_bright@hhs.gov>; Walker, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a02e128c60f4a7195532a1545af9556-Walker, Rob <robert_walker@hhs.gov></robert_walker@hhs.gov></rick_bright@hhs.gov></robert_johnson@hhs.gov></gary_disbrow@hhs.gov>	
Sent Date:	2020/04/12 12:47:30	
Delivered Date:	2020/04/12 12:47:31	
From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROU (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert_johnson@hhs.gov></robert_johnson@hhs.gov>	
To:	Houchens, Christopher (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ac94a574bd04528b7c91bbd61893975-Houchens, C <christopher.houchens@hhs.gov></christopher.houchens@hhs.gov>	
Subject:	Fwd: PLEASE READ - Topline results Bin Cao study [FOUO PROCUREMENT SENSITIVE]	
Date:	2020/04/12 11:03:43	
Priority:	Normal	
Type:	Note	

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G

Washington, D.C. 20201 Office: 202-401-4680 Cell: (b)(6)

email: Robert_Johnson@HHS.gov

Begin forwarded message:

From: "Johnson, Robert (OS/ASPR/BARDA)" < Robert.Johnson@hhs.gov>

Date: April 10, 2020 at 5:43:00 PM EDT

To: "Walker, Robert (OS/ASPR/BARDA)" <Robert.Walker@hhs.gov>
Cc: "Gary Disbrow (OS/ASPR/BARDA) (Gary.Disbrow@hhs.gov)"

<Gary.Disbrow@hhs.gov>, "Bright, Rick (OS/ASPR/BARDA)" <Rick.Bright@hhs.gov>,

"Ruben Donis (OS/ASPR/BARDA) (Ruben.Donis@hhs.gov)" <Ruben.Donis@hhs.gov>,
"Christine Oshansky (OS/ASPR/BARDA) (Christine.Oshansky@hhs.gov)"
<Christine.Oshansky@hhs.gov>

Subject: RE: PLEASE READ - Topline results Bin Cao study [FOUO PROCUREMENT SENSITIVE]

FOUO PRE-DECISIONAL

Bob.

Hi. thanks a lot for sending.

Gary and Rick,

Important read below. Note comment regarding FDA not being supportive of the NEJM analysis.

Thanks.

Robert

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (5)/6)

email: Robert.Johnson@HHS.gov

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From: Walker, Robert (OS/ASPR/BARDA) <Robert.Walker@hhs.gov>

Sent: Friday, April 10, 2020 1:41 PM

To: Johnson, Robert (OS/ASPR/BARDA) < Robert. Johnson@hhs.gov>; Tesfaya, Selamawit

(OS/ASPR/BARDA) (CTR) <Selamawit.Tesfaya@hhs.gov>

Subject: PLEASE READ - Topline results Bin Cao study [FOUO PROCUREMENT SENSITIVE]

Robert

Bullets from conversation just now with John Farley at FDA:

1. • 1. Remdesivir

- a. 1. FDA is aware of results from the Chinese study in severe patients, top line data (in Mandarin only). FDA trying to obtain from Gilead. Verbal report is negative study in the 236 enrolled (of 453 target). No difference in ordinal scale outcomes or in mortality (14% vs.13%).
- b. 2. Expanded access manuscript in 53 patients to be published by NEJM later today.
 FDA not supportive of their analyses, and are aware of analyses in larger cohort of 163 patients where mortality is higher than reported in the manuscript (22%).
- c. 3. FDA not planning to move forward with EUA at this time. They are still waiting on a few things from Gilead related to written topline data.

2. · 2. Tocilizumab

- d. 4. Roche submitted EUA proposal but their interest seems to have cooled off lately.
- e. 5. In the plan, HHS is heavily involved in the distribution system
- f. 6. FDA working closely with Roche to accelerate plans for a domestic manufacturing facility

Please advise if you need me to do anything regarding reporting this information up to OD.

Bob

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUF (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO Robert.Johnson@hhs.gov>
Recipient:	Houchens, Christopher (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ac94a574bd04528b7c91bbd61893975-Houchens, C <christopher.houchens@hhs.gov></christopher.houchens@hhs.gov>
Sent Date:	2020/04/12 11:03:42
Delivered Date:	2020/04/12 11:03:43

We understand that Gilead—or an authorized distributor shipping on behalf of Gilead (hereinafter, "Gilead")—is prepared to transport remdesivir in interstate commerce, within the United States and its territories, in order to pre-position remdesivir to respond to the spread of COVID-19. Transport that is for use under an existing IND, such as that held by NIAID or by Gilead itself, does not present any legal issues. We understand, however, that Gilead is concerned about prepositioning for use under potential individual patient INDs that may issue after the drug is propositioned.

I am requesting that Gilead go forward with the proposed prepositioning. I understand that the transport, in response to this request, will be considered by the Food and Drug Administration (FDA) to be "on behalf of a government entity" and, so long as the pre-positioned product is intended to be held and not used, and is in fact held and not used, until FDA authorizes the drug for use under an appropriate regulatory mechanism, such as an investigational use (IND) (including Expanded Access INDs, such as individual patient expanded access for emergency use), an emergency use authorization (EUA), or approval of a New Drug Application (NDA), the transport is permitted under Section 564B of the Federal Food, Drug, and Cosmetic Act. FDA has informed me that Gilead may transport the drug under this provision, without waiting for approval of the shipment, provided that the company maintains the necessary documentation, including records reflecting the intent to hold and not use the product until such time as it may be used under an appropriate regulatory mechanism. I understand that Gilead has agreed to keep the FDA informed of any shipment occurring under this mechanism.

Robert Kadlec, M.D,

Assistant Secretary for Preparedness and Response

U.S. Department of Health and Human Services

Disbrow, Gary (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP From: (FYD1BOHF23SPDLT)/CN=RECIPIENTS/CN=0FD5845DEFDA4DC0B845F8FAC629CF09-DISBROW, GA <Gary.Disbrow@hhs.gov> Libert, Thomas (OS/ASPR/MFHC) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8a4deb4ea6eb4132b0611663952365c8-Libert, Tho <Thomas.Libert@hhs.gov>; Merkeley, Tyler (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userf1f9626f <Tyler.Merkeley@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group To: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <Rick_Bright@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0851e89240324306b78740a4a60745e2-Johnson, Ro <Robert.Johnson@hhs.gov>; Houchens, Christopher (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ac94a574bd04528b7c91bbd61893975-Houchens, C <Christopher.Houchens@hhs.gov> Dubay, Johanna (OS/ASPR/MFHC) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=67e2379a38194477959edf8ebd791fe2-Dubay, Joha <Johanna.Dubay@hhs.gov>; CC: McQueen, Lynn (OS/ASPR/MFHC) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=88a4bef1f70c442fa6dcd53b788d17f4-McQueen, Ma <Margaret.McQueen@hhs.gov> Subject: RE: NSC Questions re: Remdesivir COAs Date: 2020/03/11 15:47:19 Priority: Normal Type: Note

Tom,

This is being handled by HHS OGC. I am working with Brian Stimson. Bryan Shuy and Dr. Kadlec are involved.

Others on the email, please disregard.

Gary

Gary L. Disbrow Ph.D.

Deputy Assistant Secretary

Director, Medical Countermeasure Programs

Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR

Department of Health and Human Services

330 Independence Avenue, S.W. Room 640 G

Washington, D.C. 20201 Office: 202-260-0899 Mobile ₹Ь\/€\

Fax: 202-205-0873

email: Gary.Disbrow@HHS.gov

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From: Libert, Thomas (OS/ASPR/MFHC) <Thomas.Libert@hhs.gov>

Sent: Wednesday, March 11, 2020 3:45 PM

To: Merkeley, Tyler (OS/ASPR/BARDA) <Tyler.Merkeley@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) <Rick.Bright@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Houchens, Christopher (OS/ASPR/BARDA) <Christopher.Houchens@hhs.gov>

Cc: Dubay, Johanna (OS/ASPR/MFHC) < Johanna. Dubay@hhs.gov>; McQueen, Lynn (OS/ASPR/MFHC) < Margaret. McQueen@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) < Gary. Disbrow@hhs.gov>

Subject: FW: NSC Questions re: Remdesivir COAs

FYI – NSC Q&A direct to Gary and Bryan. Just looping all involved.

From: Goyle, Suraj (OS/ASFR) <Suraj.Goyle@hhs.gov>

Tremit defict desired (desired in the contract in

Sent: Wednesday, March 11, 2020 3:42 PM

To: Petillo, Jay (OS/ASPR/MFHC) < Jay.Petillo@HHS.GOV >; Dubay, Johanna (OS/ASPR/MFHC) < Johanna.Dubay@hhs.gov >; Eisemann, Darla (OS/ASPR/MFHC) < Darla.Eisemann@hhs.gov >; Libert,

Thomas (OS/ASPR/MFHC) < Thomas.Libert@hhs.gov>

Cc: Cabezas, Miriam (HHS/ASFR) < Miriam.Cabezas@hhs.gov>; Cormier, Justin (HHS/ASFR)

<Justin.Cormier@hhs.gov>

Subject: NSC Questions re: Remdesivir COAs

ASPR colleagues,

NSC sent the below questions for HHS response related to the Remdesivir COAs. Gary D. and Bryan S. were copied on the incoming request. We are sending at the staff level as well.

 What is the cost of the recommended option to procure the existing supply of Remdesivir and its API? Specifically, how does this procurement fit in to HHS's coronavirus supplemental funding plan? They have a lot of new money, but also a lot of purchases planned. Remdesivir plus API could be very expensive. We need to know how this might fit into larger SNS plan.

- What authority will HHS use to procure API? Is the plan to put the API into the Stockpile? What
 will be the chain of custody if the U.S. secures API without the capacity to fill/finish? Would HHS
 then sell API to the manufacturer? Has FDA been consulted?
- What is the capability to fill/finish the API in the US? And what is the associated timeline for completing fill/finish, and is it different than what Gilead could accomplish through its own fill/finish contracts?
- Does Gilead have a background agreement with China such that after the completion of the Phase 3 trials in China, is China on the hook to buy a specific amount of Remdesivir from Gilead?

Thank you, Suraj

Suraj Goyle

U.S. Department of Health and Human Services Office of the Secretary | ASFR | Office of Budget (202) 841-8701

Sender:	Disbrow, Gary (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0FD5845DEFDA4DC0BB45F8FAC629CF09-DISBROW, GA <gary.disbrow@hhs.gov></gary.disbrow@hhs.gov>
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Sent Date:	2020/03/11 15:47:19

Remdesivir Expanded Access Program Results as of 2020Apr10

NEJM Grein et al. Compassionate Use of Remdesivir for Patients with Severe COVID-19

Summary and limitations

In the expanded access program, Remdesivir showed signs of improvement in mortality and oxygenation in patients admitted to the ICU when compared to reported cohorts from China. However, the interpretation of the results of this study is limited by the small size of the cohort, the relatively short duration of follow-up, potential missing data owing to the nature of the program, the lack of information on 8 of the patients initially treated, and the lack of a randomized control group. No new safety signals were reported.

The findings from these uncontrolled data will be informed by the ongoing randomized, placebo-controlled trials of remdesivir therapy for Covid-19. There is concern that results from uncontrolled patient series will interfere with the enrollment into controlled clinical trials, which are the critically needed data.

It should be noted that comparisons across case series have many pitfalls. For diseases such as COVID-19 that are predominantly self-limiting, the lack of a high quality natural history of disease study confounds comparisons as most patients will recover based on high standards of supportive care.

Background:

Gilead Sciences, Inc. produces remdesivir, a nucleotide analogue prodrug that inhibits viral RNA polymerases and has demonstrated in vitro activity against SARS-CoV-2. Gilead Sciences sponsored an open label, uncontrolled expanded access program in hospitalized patients with health care provider-requested compassionate use of remdesivir in patients in the US, Japan, Canada, and Europe. The results were published in the New England Journal of Medicine on April 10, 2020. The mortality data of COVID-19 patients admitted to ICU is limited, with preliminary data indicating mortality rate in intubated patients is generally estimated to be 50%¹. In the paper they reference a mortality rate in ICU admitted-patients of between 17% and 78% ²⁻⁶. Age, history of diabetes, coronary artery disease, chronic kidney disease, hypertension, prior stroke and chronic lung disease are the major risk factors.

Method

Patient enrollment included hospitalized patients who had SARS-CoV-2 infection confirmed by reverse-transcriptase—polymerase-chain-reaction assay and either an oxygen saturation of 94% or less while the patient was breathing ambient air or a need for oxygen support. In addition, patients were required to have a creatinine clearance above 30 ml per minute and serum levels of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) less than five times the upper limit of the normal range, and they had to agree not to use other investigational agents for Covid-19. A total of 53 of 61 patients were included in the final descriptive analysis and there were no prespecified endpoints for this program.

Median duration of symptoms before the initiation of remdesivir was 12 days. Baseline characteristics of the patients include 34 with invasive ventilation (4 ECMO) with a median age of 67 and 19 non-invasive oxygen support with a median age of 53. 75% of the patients were male.

Standard dose administered intravenously was 200mg on day 1 and 100mg daily for 9 more days. Forty patients received a full 10-day course and 13 did not. Of the 13 patients who did not

Remdesivir Expanded Access Program Results as of 2020Apr10

NEJM Grein et al. Compassionate Use of Remdesivir for Patients with Severe COVID-19

receive the full 10 day treatment course, causes for early termination varied and included two patients with elevated liver enzymes. On average, mechanical ventilation was instituted 2 days prior to starting remdesivir and 12 days after symptom onset. Using a 6 point ordinal scale to define status of patients, a 2 point or more change or discharge was considered improvement.

Results:

Median follow up was 18 days with some patients having 28 days of follow up. Based on their definition of improvement, 84% had improvement. A total of 13% of the 53 patients died. Patients receiving invasive ventilation had mortality rate of 18% (6/34) and non-invasive ventilation of 5% (1/19). 68% had an improvement in oxygen status. Wide ranges of mortality exist across studies and are often 35-40%, or higher, in ventilated patients generally.

60% of patients had adverse events with 23% of these being serious.

References:

- Meng L, Qiu H, Wan L, et al. Intubation and Ventilation amid the COVID-19 Outbreak: Wuhan's Experience. Anesthesiology. 2020.
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Kadlec, Robert (OS/ASPR/IO) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP From: (FYD1BOHF23SPDLT)/CN=RECIPIENTS/CN=A182EDA693D040D3832BAE6EFCF7A25S-KADLEC, ROB <Robert.Kadlec@hhs.gov> Anderson, Michael <Michael.Anderson@ucsf.edu>; Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga <Gary.Disbrow@hhs.gov> Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <Rick.Bright@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=0851e89240324306b78740a4a60745e2-Johnson, Ro <Robert.Johnson@hhs.gov>; Shuy, Bryan (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fdebSca04b6b4ed19fec2209b5f571e7-Shuy, Bryan <Bryan.Shuy@hhs.gov>; Merdad Parsey <merdad.parsey@gilead.com>; Walker, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a02e128c60f4a7195532a1545af9556-Walker, Rob <Robert.Walker@hhs.gov>; Mair, Michael (FDA/OC) /o=ExchangeLabs/ou=Exchange Administrative Group CC: (FYDIBOHF23SPDLT)/cn=Recipients/cn=f3e2b23223bc4a1abecf698a4122f6c3-michael.mai <Michael.Mair@fda.hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=6fe6cf13518445fd9c3a1c254e166b3f-Yeskey, Kev <Kevin.Yeskey@hhs.gov>; Greene, Jonathan (OS/ASPR/EMMO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b692a4d6cff4afabbeea99d35336ece-Greene, Jon <Jonathan.Greene@hhs.gov>; Cote, Mick (OS/ASPR/EMMO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user9459b24b <Mick.Cote@hhs.gov>; Redd, John (OS/ASPR/SPPR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=9ba3fed4ee8646ec849a5a87136a24f6-Redd, John <John.Redd@hhs.gov>; Callahan, Michael V., M.D. < MVCALLAHAN@mgh.harvard.edu> Subject: RE: Avaiability of REMDESIVIR in San Fran Date: 2020/03/08 11:02:56 Priority: Normal Type: Note

Thanks Mike

From: Anderson, Michael < Michael. Anderson@ucsf.edu>

Sent: Sunday, March 8, 2020 10:52 AM

To: Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Kadlec, Robert (OS/ASPR/IO)

<Robert.Kadlec@hhs.gov>

Cc: Bright, Rick (OS/ASPR/BARDA) <Rick.Bright@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Shuy, Bryan (OS/ASPR/IO) <Bryan.Shuy@hhs.gov>; Merdad Parsey <merdad.parsey@gilead.com>; Walker, Robert (OS/ASPR/BARDA) <Robert.Walker@hhs.gov>; Mair, Michael (FDA/OC) <Michael.Mair@fda.hhs.gov>; Anderson, Michael <Michael.Anderson@ucsf.edu> Subject: Re: Avaialbility of REMDESIVIR in San Fran

Thanks team.

My plans for the next 24 hrs

- 1) Make sure my onc team is in the loop
- Our command center is open and awaiting more data on the 9 make-a-wish children. We have two children's campuses in SF and Oakland. Likewise other peds beds exist in the Bay...
- Dr Parsey—please feel free to contact me w questions. Once we have a more clear picture on the clinical issues, will decide if enrollment is appropriate
- Awaiting other input/counsel

Mike	
Cell: (b)(6)	

_____ Michael Anderson, MD, MBA, FAAP, FCCM, FAARC

President, UCSF Benioff Children's Hospitals Professor and Vice Chair for Children's Health, UCSF

Cell: (b)(6) 0: 415-476-6744

Assistant: joseph.genser@ucsf.edu OR (h)(6)

From: "Disbrow, Gary (OS/ASPR/BARDA)" < Gary. Disbrow@hhs.gov>

Date: Sunday, March 8, 2020 at 7:42 AM

To: Michael R Anderson < Michael Anderson@ucsf.edu>, "Kadlec, Robert (OS/ASPR/IO)" <Robert.Kadlec@hhs.gov>

Cc: "Bright, Rick (OS/ASPR/BARDA)" <Rick Bright@hhs.gov>, "Johnson, Robert (OS/ASPR/BARDA)" <Robert.Johnson@hhs.gov>, "Shuy, Bryan (OS/ASPR/IO)" <Bryan.Shuy@hhs.gov>, Merdad Parsey <merdad.parsey@gilead.com>, "Walker, Robert (OS/ASPR/BARDA)" <Robert. Walker@hhs.gov>, "Mair, Michael (FDA/OC)" <Michael.Mair@fda.hhs.gov>

Subject: RE: Avaiability of REMDESIVIR in San Fran

Michael,

Thanks for the quick call and discussion. Providing information for Chief Medical Officer for Gilead, Dr. Merdad Parsey. I will also check with NIAID to determine if RCT is established in Oakland, if not and if it takes too much time to expand, a treating clinician could request product under an investigator initiated emergency IND.

Merdad Parsey, MD PhD Chief Medical Officer Gilead Sciences, Inc. (M) (h) (6)

Also, the company is allowed to preposition drug in advance, if needed.

Providing an FDA contact who could assist if there are questions about eIND paperwork. Michael Mair in the email above could help connect to the review division.

Gary

Gary L. Disbrow Ph.D.

Deputy Assistant Secretary Director, Medical Countermeasure Programs Biomedical Advanced Research and Development Authority

RARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-260-0899 Mobile: (h)/6) Fax: 202-205-0873

email: Gary.Disbrow@HHS.gov

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From: Anderson, Michael < Michael. Anderson@ucsf.edu>

Sent: Sunday, March 8, 2020 10:18 AM

To: Kadlec, Robert (OS/ASPR/IO) <Robert.Kadlec@hhs.gov>

Cc: Bright, Rick (OS/ASPR/BARDA) <Rick.Bright@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA)

<Gary.Disbrow@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) <Robert_Johnson@hhs.gov>; Shuy, Bryan

(OS/ASPR/IO) <Bryan.Shuy@hhs.gov>

Subject: Re: Avaiability of REMDESIVIR in San Fran

Ready to help any way we can

Michael R Anderson MD MBA FAAP FCCM President, UCSF Benioff Children's Hospitals Professor of Pediatrics Cell (b)(6)

Sent from my iPhone

On Mar 8, 2020, at 7:17 AM, Kadlec, Robert (OS/ASPR/IO) < Robert Kadlec@hhs.gov>wrote:

BARDA Team please note there are 9 high risk children (Make a Wish Foundation) with advanced stage cancer. Please request from GILEAD 10 courses for compassionate use to be available immediately. These children have high potential mortality rates if exposed/infected to this virus. Please advise and keep me informed on any and all developments If you need a POC I have copied Mike Anderson at UCSF Peds hospital.

Sender: (Kadlec, Robert (OS/ASPR/IO) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A182EDA693D040D3832BAE6EFCF7A255-KADLEC, ROB <robert.kadlec@hhs.gov></robert.kadlec@hhs.gov>
Recipient:	Anderson, Michael <michael anderson@ucsf.edu="">; Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga Gary.Disbrow@hhs.gov; Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=530347S2f35a4317aa74f46348442d39-Bright, Ric Rick.Bright@hhs.gov; Dohnson, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0851e89240324306b78740a4a60745e2-Johnson, Ro Robert-Johnson@hhs.gov; Shuy, Bryan (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fdeb5ca04b6b4ed19fec2209b5f571e7-Shuy, Bryan Bryan.Shuy@hhs.gov; Merdad Parsey merdad-parsey@gilead.com; Walker, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a02e128c60f4a7195532a1545af9556-Walker, Rob Robert.Walker@hhs.gov; Mair, Michael (FDA/OC) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f3e2b23223bc4a1abecf698a4122f6c3-michael.mai Michael.Mair@fda.hhs.gov; Yeskey, Kevin (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6fe6cf13518445fd9c3a1c254e166b3f-Yeskey, Kev Kevin.Yeskey@hhs.gov; Greene, Jonathan (OS/ASPR/EMMO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b692a4d6cff4afabbeea99d35336ece-Greene, Jon HochangeLabs/Ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user9459b24b Michael.Mair@fda.hhs.gov; Cote, Mic</michael>
Sent Date: 2	2020/03/08 11:02:55
Dellared Date (2020/03/08 11:02:56

From: Lawler, James V <james.lawler@unmc.edu> Kadlec, Robert (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a182eda693d040d3832bae6efcf7a255-Kadlec, Rob <Robert.Kadlec@hhs.gov>; Redd, John (OS/ASPR/SPPR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ba3fed4ee8646ec849a5a87136a24f6-Redd, John <John.Redd@hhs.gov>; Hunt, Richard (OS/ASPR/EMMO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=a104469df5184cc38bf02034af7eca04-Hunt, Richa <Richard.Hunt@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=6fe6cf13518445fd9c3a1c254e166b3f-Yeskey, Kev <Kevin.Yeskey@hhs.gov>; To: Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f3Sa4317aa74f46348442d39-Bright, Ric. <Rick.Bright@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga <Gary.Disbrow@hhs.gov>; Adams, Steven A. (ASPR/SNS) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f98462fe8d124743a437c7a80b3f60dd-Adams, Stev <saa1@cdc.gov>; mvcallahan@mgh.harvard.edu /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=20f0e9a3ebeb4ef99d30a96386fb2627-Guest_945f5 <mvcallahan@mgh.harvard.edu> Subject: Re: NE)M Remdesivir Date: 2020/04/12 12:45:35 Priority: Normal Type: Note

Cannot see how anybody can draw definitive conclusions from this "study". Looking at the baseline characteristics, these folks were somewhat younger and with fewer comorbidities than what I would consider a high-risk population. Certainly, they look like a better protoplasm than our Diamond Princess cohort. But I imagine the fact that they were people you would more likely expect to survive but who were very sick was one reason why they received compassionate use drug. The degree of improvement and survival is not dramatically different from what I would expect without a drug. Just confirms why RCT research response is so important in PHE.

James Lawler, MD, MPH, FIDSA

m:/h\/6\

james.lawler@unmc.edu

From: "Kadlec, Robert (OS/ASPR/IO)" <Robert.Kadlec@hhs.gov>

Date: Sunday, April 12, 2020 at 8:47 AM

To: "Redd, John (OS/ASPR/SPPR)" < John.Redd@hhs.gov>, "Hunt, Richard (OS/ASPR/EMMO)" < Richard.Hunt@hhs.gov>, "Yeskey, Kevin (OS/ASPR/IO)" < Kevin.Yeskey@hhs.gov>, "Bright, Rick (OS/ASPR/BARDA)" < Rick.Bright@hhs.gov>, "Disbrow, Gary (OS/ASPR/BARDA)" < Gary.Disbrow@hhs.gov>, "Adams, Steven A. (ASPR/SNS)" < saa1@cdc.gov>, "Callahan, m."

<mvcallahan@mgh.harvard.edu>, "Lawler, James V" <james.lawler@unmc.edu> Subject: NEJM Remdesivir

Non-UNMC email

Here is the NEJM about compassionate use of Remdesivir. I would benefit from what you all think about the data

https://www.nejm.org/doi/pdf/10.1056/NEJMoa2007016?articleTools=true [nejm.org]

Bob

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Sent Date:	2020/04/12 12:44:23
Delivered Date:	2020/04/12 12:45:35

From:	Houchens, Christopher (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7AC94A574BD04528B7C91BBD61893975-HOUCHENS, C <christopher.houchens@hhs.gov></christopher.houchens@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0851e89240324306b78740a4a60745e2-Johnson, Ro <robert.johnson@hhs.gov>; Oshansky, Christine (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d7bd764440b44b06af644cdcd22e42d6-Oshansky, C <christine.oshansky@hhs.gov>; Ventura, Christy (OS/ASPR/BARDA) (CTR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9bb949caca464329823ca3cf77654a06-Ventura, Ch <christy.ventura@hhs.gov>; Boucher, David (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41293945651d475fa0413062a819aac5-Boucher, Da <david.boucher@hhs.gov></david.boucher@hhs.gov></christy.ventura@hhs.gov></christine.oshansky@hhs.gov></robert.johnson@hhs.gov></rick.bright@hhs.gov>
cc:	Armstrong, Kimberly (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5b778c7e17734740b14fbae4d3ed652c-Armstrong, <kimberly.armstrong@hhs.gov>; Walker, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a02e128c60f4a7195532a1545af9556-Walker, Rob <robert.walker@hhs.gov>; Marks, Gilbert (OS/ASPR/BARDA) (CTR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=449edc5bc9594eb287c4c4b9123551c9-Marks, Gilb <gilbert.marks@hhs.gov></gilbert.marks@hhs.gov></robert.walker@hhs.gov></kimberly.armstrong@hhs.gov>
Subject:	RE: New analysis of patients treated with remdesivir under compassionate use
Date:	2020/04/12 10:32:51
Priority:	Normal
Type:	Note

Rick – Please see attached statement on the remdesivir CU report, thanks to Bob and Lynn working with George Risi, Karen Martins, and Robb Rowley.

BL: the expanded access program, Remdesivir showed signs of improvement in mortality and oxygenation in patients admitted to the ICU when compared to reported cohorts from China. However, the interpretation of the results of this study is limited by the small size of the cohort, the relatively short duration of follow-up, potential missing data owing to the nature of the program, the lack of information on 8 of the patients initially treated, and the lack of a randomized control group. No new safety signals were reported.

Thank you,

Chris

Christopher Houchens, PhD Director (Acting) Division of CBRN Countermeasures Biomedical Advanced Research and Development Authority (BARDA) Office of Assistant Secretary for Preparedness and Response (ASPR)
Department of Health and Human Services (DHHS)

Office: 202-205-3633 BB: (b)(6)

Christopher.houchens@hhs.gov

From: Bright, Rick (OS/ASPR/BARDA) < Rick.Bright@hhs.gov>

Sent: Friday, April 10, 2020 10:13 PM

To: Houchens, Christopher (OS/ASPR/BARDA) < Christopher. Houchens@hhs.gov>; Johnson, Robert (OS/ASPR/BARDA) < Robert. Johnson@hhs.gov>; Oshansky, Christine (OS/ASPR/BARDA)

<Christine.Oshansky@hhs.gov>

Cc: Armstrong, Kimberly (OS/ASPR/BARDA) <Kimberly.Armstrong@hhs.gov>; Walker, Robert (OS/ASPR/BARDA) <Robert.Walker@hhs.gov>; Marks, Gilbert (OS/ASPR/BARDA) (CTR) <Gilbert.Marks@hhs.gov>

Subject: FW: New analysis of patients treated with remdesivir under compassionate use

Not urgent, but sometime by Monday, can someone please tell me the thoughts on this report today. Many thanks Rick

From: Chuck Clapton < Chuck. Clapton@gi	lead.com>
Date: Friday, April 10, 2020 at 4:39 PM	
To: "Pataki, Timothy (h)/6)	, "Pinkos, Stephen
(b)(6)), "/h\/6\
VENUE >, "INVE	<u> </u>
"(b)(6)	>, Sarah Arbes < <u>Sarah.Arbes@hhs.gov</u> >
"'joseph.j.grogan@\b\(6\)	, "Pence, Laura (HHS/ASL)"
<laura.pence@hhs.gov></laura.pence@hhs.gov>	
Cc: Robert Kadler < Robert Kadler@bbs or	OVO "Bright Rick (OS/ASPR/RARDA)" cRick Bright@hhs govo

Cc: Robert Kadlec <Robert.Kadlec@hhs.gov>, "Bright, Rick (OS/ASPR/BARDA)" <Rick.Bright@hhs.gov>, Michael Boyd <michael.boyd1@gilead.com>

Subject: FW: New analysis of patients treated with remdesivir under compassionate use

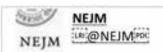
Gilead today released the results from a cohort analysis of 53 patients hospitalized with severe complications of COVID-19 that were treated with remdesivir under compassionate use. The majority of patients demonstrated clinical improvement and no new safety signals were identified. Attached are the following:

- · Gilead press release;
- Link to a new England Journal of Medicine report on the results;
- · · NEJM tweet.

Please let us know if you have any questions or need any additional information.

Chuck Direct: 202-7745936 Cell: (b)(6)

https://www.nejm.org/doi/full/10.1056/NEJMoa2007016





A cohort of patients with severe Covid-19 received treatment with remdesivir I compassionate-use protocol. Improvement in oxygen-support status was obseof patients, and overall mortality was 13% over a median follow-up of 26 days.

4/10/20, 3:39 PM

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Sender:	Houchens, Christopher (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7AC94A574BD04528B7C91BBD61893975-HOUCHENS, C <christopher.houchens@hhs.gov></christopher.houchens@hhs.gov>
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Recipient: <Christy.Ventura@hhs.gov>;
Boucher, David (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41293945651d475fa0413062a819aac5-Boucher, Da <David.Boucher@hhs.gov>;

Ventura, Christy (OS/ASPR/BARDA) (CTR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9bb949caca464329823ca3cf77654a06-Ventura, Ch

Armstrong, Kimberly (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=5b778c7e17734740b14fbae4d3ed652c-Armstrong,

<Kimberly.Armstrong@hhs.gov>;

Walker, Robert (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=7a02e128c60f4a7195532a1545af9556-Walker, Rob <Robert.Walker@hhs.gov>;

Marks, Gilbert (OS/ASPR/BARDA) (CTR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=449edc5bc9594eb287c4c4b9123551c9-Marks, Gilb <Gilbert.Marks@hhs.gov>

Sent Date: 2020/04/12 10:32:49 Delivered Date: 2020/04/12 10:32:51

Walker, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP From: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7A02E128C60F4A7195532A1545AF9556-WALKER, ROB <Robert.Walker@hhs.gov> Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga <Gary.Disbrow@hhs.gov>: Kadlec, Robert (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=a182eda693d040d3832bae6efcf7a255-Kadlec, Rob <Robert.Kadlec@hhs.gov>; Redd, John (OS/ASPR/SPPR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ba3fed4ee8646ec849a5a87136a24f6-Redd, John <John.Redd@hhs.gov>; Hunt, Richard (OS/ASPR/EMMO) /o=ExchangeLabs/ou=Exchange Administrative Group To: (FYDIBOHF23SPDLT)/cn=Recipients/cn=a104469df5184cc38bf02034af7eca04-Hunt, Richa <Richard.Hunt@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=6fe6cf13518445fd9c3a1c254e166b3f-Yeskey, Kev <Kevin.Yeskey@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <Rick_Bright@hhs.gov>; Adams, Steven A. (ASPR/SNS) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f98462fe8d124743a437c7a80b3f60dd-Adams, Stev Subject: RE: FOUO USG INTERNAL USE ONLY Date: 2020/04/12 11:27:14 Priority: Normal Type: Note

Dr. Kadlec

I spoke with our clinical working group lead from FDA on Friday about the NEJM publication.

- FDA is already aware of a later analysis of compassionate use recipients totaling 163 patients that showed higher mortality—approximately 22%. FDA is not supportive of the published analysis.
- 2. FDA is aware of top line results from the Chinese RCT in severe patients conducted by Bin Cao that was targeted to enroll 453 patients but only managed to enroll 236. The verbal report is that this is a negative study with no difference in ordinal scale outcomes or in mortality (approximately 13%). The FDA is awaiting receipt of written results from Gilead. We subsequently learned that one of the secondary endpoints---time on mechanical ventilation—showed a positive trend but have not yet seen those data.
- FDA is not planning to move forward with an EUA at this time.

Bob

From: Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>

Sent: Sunday, April 12, 2020 11:18 AM

To: Kadlec, Robert (OS/ASPR/IO) <Robert.Kadlec@hhs.gov>; Redd, John (OS/ASPR/SPPR)

<John.Redd@hhs.gov>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) <Rick.Bright@hhs.gov>; Adams, Steven A. (ASPR/SNS) <saa1@cdc.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Walker, Robert (OS/ASPR/BARDA) <Robert.Walker@hhs.gov>

Subject: RE: FOUO USG INTERNAL USE ONLY

Bob,

Dr. Walker will respond. The information cannot be shared with Michael or James. It is for internal USG use only. There are true RCTs ongoing and there needs to be an evaluation of the drug versus a placebo control in order to determine if there is a true benefit.

Gary

Gary L. Disbrow Ph.D.

Deputy Assistant Secretary
Director, Medical Countermeasure Programs
Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR
Department of Health and Human Services
330 Independence Avenue, S.W. Room 640 G
Washington, D.C. 20201

Office: 202-260-0899 Mobile (h)(6) Fax: 202-205-0873

email: Gary.Disbrow@HHS.gov

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From: Kadlec, Robert (OS/ASPR/IO) < Robert.Kadlec@hhs.gov>

Sent: Sunday, April 12, 2020 9:47 AM

To: Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hunt, Richard (OS/ASPR/EMMO) < Richard, Hunt@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) < Kevin.Yeskey@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) <<u>Rick.Bright@hhs.gov</u>>; Disbrow, Gary (OS/ASPR/BARDA) <<u>Gary.Disbrow@hhs.gov</u>>; Adams, Steven A. (ASPR/SNS) <<u>saa1@cdc.gov</u>>; <u>mvcallahan@mgh.harvard.edu</u>; Lawler, James V <<u>james.lawler@unmc.edu</u>>

Subject: NEJM Remdesivir

Here is the NEJM about compassionate use of Remdesivir. I would benefit from what you all think about the data

https://www.nejm.org/doi/pdf/10.1056/NEJMoa2007016?articleTools=true

Bob

Sender:	Walker, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7A02E128C60F4A7195532A1545AF9556-WALKER, ROB <robert.walker@hhs.gov></robert.walker@hhs.gov>
Recipient:	Disbrow, Gary (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0fd5845defda4dc0bb45f8fac629cf09-Disbrow, Ga <gary.disbrow@hhs.gov>; Kadlec, Robert (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a182eda693d040d3832bae6efcf7a255-Kadlec, Rob <robert.kadlec@hhs.gov>; Redd, John (OS/ASPR/SPPR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9ba3fed4ee8646ec849a5a87136a24f6-Redd, John <iohn.redd@hhs.gov>; Hunt, Richard (OS/ASPR/EMMO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a104469df5184cc38bf02034af7eca04-Hunt, Richa <richard.hunt@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6fe6cf13518445fd9c3a1c254e166b3f-Yeskey, Kev <kevin.yeskey@hhs.gov>; Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov>; Adams, Steven A. (ASPR/SNS) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f98462fe8d124743a437c7a80b3f60dd-Adams, Stev <saa1@cdc.gov></saa1@cdc.gov></rick.bright@hhs.gov></kevin.yeskey@hhs.gov></richard.hunt@hhs.gov></iohn.redd@hhs.gov></robert.kadlec@hhs.gov></gary.disbrow@hhs.gov>
Sent Date:	2020/04/12 11:27:10
	2020/04/12 11:27:14

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 07:30:13
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Carter Mecher <cmecher@charter.net>
Sent: Wednesday, March 4, 2020 5:39 AM

To: Dr. Eva K Lee <evalee-gatech@pm.me>; alexander.eastman@hq.dhs.gov

Cc: Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Marcozzi, David

<DMarcozzi@som.umaryland.edu>; Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett

<ri>richard.hatchett@cepi.net>; Dr. Eva Lee (h)/6) }; WILKINSON, THOMAS

<THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V

<james.lawler@unmc.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH

<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; HAMILTON, CAMERON

<cameron.hamilton< th=""><th>@hq.dhs.gov>; /h\/6\</th><th>Dodgen, Daniel (OS/ASPR/SPPR)</th></cameron.hamilton<>	@hq.dhs.gov>; /h\/6\	Dodgen, Daniel (OS/ASPR/SPPR)
<daniel.dodgen@h< th=""><th>HS.GOV>; DeBord, Kristin (OS/ASPR/</th><th>SPPR) <kristin.debord@hhs.gov>; Phillips, Sally</kristin.debord@hhs.gov></th></daniel.dodgen@h<>	HS.GOV>; DeBord, Kristin (OS/ASPR/	SPPR) <kristin.debord@hhs.gov>; Phillips, Sally</kristin.debord@hhs.gov>
(OS/ASPR/SPPR) <sa< th=""><th>lly.Phillips@hhs.gov>; Matthew J CIV</th><th>/ USARMY (USA)</th></sa<>	lly.Phillips@hhs.gov>; Matthew J CIV	/ USARMY (USA)
(b)(6)	}; (b)(6)	; HARVEY, MELISSA
<melissa.harvey@he< td=""><td>dhs.gov>; Wolfe, Herbert (DHS.GO)</td><td>V) <herbert.wolfe@hq.dhs.gov>; EVANS,</herbert.wolfe@hq.dhs.gov></td></melissa.harvey@he<>	dhs.gov>; Wolfe, Herbert (DHS.GO)	V) <herbert.wolfe@hq.dhs.gov>; EVANS,</herbert.wolfe@hq.dhs.gov>
MARIEFRED < marief	red.evans@associates.hq.dhs.gov>;	jwleduc@utmb.edu; Johnson, Robert
(OS/ASPR/BARDA) <	Robert.Johnson@hhs.gov>; Yeskey,	Kevin (OS/ASPR/IO) <kevin.yeskey@hhs.gov>;</kevin.yeskey@hhs.gov>
Disbrow, Gary (OS/A	SPR/BARDA) <gary.disbrow@hhs.go< td=""><td>ov>; Redd, John (OS/ASPR/SPPR)</td></gary.disbrow@hhs.go<>	ov>; Redd, John (OS/ASPR/SPPR)
<john.redd@hhs.go< td=""><td>v>; Hassell, David (Chris) (OS/ASPR/</td><td>O) <david.hassell@hhs.gov>; Hamel, Joseph</david.hassell@hhs.gov></td></john.redd@hhs.go<>	v>; Hassell, David (Chris) (OS/ASPR/	O) <david.hassell@hhs.gov>; Hamel, Joseph</david.hassell@hhs.gov>
(OS/ASPR/IO) <jose< td=""><td>oh.Hamel@hhs.gov>; Luciana <lbori< td=""><td>o@iqt.org>; Dan <dhanfling@iqt.org>;</dhanfling@iqt.org></td></lbori<></td></jose<>	oh.Hamel@hhs.gov>; Luciana <lbori< td=""><td>o@iqt.org>; Dan <dhanfling@iqt.org>;</dhanfling@iqt.org></td></lbori<>	o@iqt.org>; Dan <dhanfling@iqt.org>;</dhanfling@iqt.org>
eric.mcdonald@sdc	ounty.ca.gov; Wade, David <david.w< td=""><td>ade@hq.dhs.gov>;</td></david.w<>	ade@hq.dhs.gov>;
david.a.tarantino@d	bp.dhs.gov; david.gruber@dshs.texa	as.gov; KAUSHIK, SANGEETA
<sangeeta.kaushik@< td=""><td>hq.dhs.gov>; Lee, Scott (OS/ASPR/E</td><td>MMO) <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></td></sangeeta.kaushik@<>	hq.dhs.gov>; Lee, Scott (OS/ASPR/E	MMO) <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>
<padgetlg@state.g< td=""><td>ov>; Ryan Morhard <ryan.morhard@< td=""><td>weforum.org>; Steven Jt(tCHFStDPH)</td></ryan.morhard@<></td></padgetlg@state.g<>	ov>; Ryan Morhard <ryan.morhard@< td=""><td>weforum.org>; Steven Jt(tCHFStDPH)</td></ryan.morhard@<>	weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.g< td=""><td>ov>; Adams, Jerome (HHS/OASH) <je< td=""><td>rome.Adams@hhs.gov>; Fantinato, Jessica</td></je<></td></steven.stack@ky.g<>	ov>; Adams, Jerome (HHS/OASH) <je< td=""><td>rome.Adams@hhs.gov>; Fantinato, Jessica</td></je<>	rome.Adams@hhs.gov>; Fantinato, Jessica
(USDA.GOV) < jessica	.fantinato@usda.gov>; DC <michelle< td=""><td>e.colby@usda.gov>; danny.shiau@usuhs.edu;</td></michelle<>	e.colby@usda.gov>; danny.shiau@usuhs.edu;
Hunt, Richard (OS/A	SPR/EMMO) < Richard. Hunt@hhs.go	v>; Jolly, Brantley (OS/ASPR/EMMO) (CTR)
<brantley.jolly@hhs< td=""><td>.gov>; Cordts, Jerome (CTR) <jerome< td=""><td>cordts@associates.hq.dhs.gov>; Mansoura,</td></jerome<></td></brantley.jolly@hhs<>	.gov>; Cordts, Jerome (CTR) <jerome< td=""><td>cordts@associates.hq.dhs.gov>; Mansoura,</td></jerome<>	cordts@associates.hq.dhs.gov>; Mansoura,
Monique K. <mman< td=""><td>soura@mitre.org></td><td></td></mman<>	soura@mitre.org>	
Subject: RE: Red Da	wn Rising Start Feb 29	

Charity, I noticed two cases in Placer County. These cases were associated with a cruise ship, the Grand Princess (not to be confused with the Diamond Princess). I looked up the ship and the Grand Princess cruise ship deck plan has a total of 1,301 cabins for 2,600 passengers served by 1,150 crew/staff. So

I found the itinerary for this cruise: http://www.crew-center.com/grand-princess-itinerary

nearly identical in size to the Diamond Princess.

11-Feb-2020	San Francisco (California), United States
12-Feb-2020	At Sea, Int. Waters
13-Feb-2020	At Sea, Int. Waters
14-Feb-2020	At Sea, Int. Waters
15-Feb-2020	Puerto Vallarta, Mexico
16-Feb-2020	Manzanillo, Mexico
17-Feb-2020	Mazatlan, Mexico
18-Feb-2020	Cabo San Lucas, Mexico
19-Feb-2020	At Sea, Int. Waters
20-Feb-2020	At Sea, Int. Waters
21-Feb-2020	San Francisco (California), United States

I don't understand how Placer County would consider these cases as not representing local spread given that the travel was to Mexico (low risk area), and although technically, the ship isn't local, this really isn't any different than someone from anywhere in the world slipping thru detection and we see infection in Americans that cannot be linked to travel to an area with local transmission or a known case (it is just that it occurred at sea). I would suspect that there must have been spread aboard the ship with a passenger who boarded at San Francisco seeding the ship. Since the ship departed San Francisco on Feb 11, and if we assume that there was at least 1 infected individual among the 3,700 passengers and crew, then the estimate of COVID prevalence (for the population where the passengers came from) back in

Feb 11 was on the order of 1/3,700 or about 0.027%. If we assume the numbers of cases in the community doubled each week (a conservative estimate), then prevalence (for the population where the passengers came from) by Mar 4 (about 3 weeks later), would be about 0.22%. If cases tripled each week, prevalence would be about 0.73%. The confounding thing is where do these passengers come from? (Is it mostly CA or US? International?) I assume someone in CA is tracking all this down. This is worrisome because it is just another piece of the puzzle that warns us that things have been percolating below the radar as we have expected. This is critical for NPIs because we are likely much later in the epidemic (in terms of prevalence) than we realize.

Am going to dig around for more information on these cases and others.

https://www.placer.ca.gov/6437/Placer-County-confirms-second-case-of-CO

Placer County confirms second case of COVID-19; declares local health emergency to ensure adequate resources

Placer County Public Health is reporting a second case of COVID-19 after a hospitalized patient tested presumptively positive, pending confirmation from the Centers for Disease Control and Prevention. The county has also declared a local health emergency and proclaimed a local emergency to ensure public health professionals have all necessary tools at their disposal to keep the community safe. The new case is an older adult whose exposure likely occurred during international travel on a Princess cruise ship that departed from San Francisco to Mexico – the same Feb. 11-21 cruise associated with a confirmed Sonoma County case announced previously. The Placer patient is critically ill and in isolation at a local hospital. Close contacts of the patient are being quarantined and monitored. As the case appears connected to travel, it most likely does not represent an instance of local community spread.

"We expect to see additional cases in coming days, including cases of community spread, not linked to travel," said Health Officer Dr. Aimee Sisson. "We are declaring these emergencies today so we will be able to activate and deploy resources to adequately respond to an increase in cases."

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 8:55 PM To: Dr. Eva K Lee; Eastman, Alexander

Cc: Caneva, Duane; Marcozzi, David; Tracey McNamara; Richard Hatchett; Dr. Eva Lee; WILKINSON, THOMAS; M.D.; James V; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; HAMILTON, CAMERON; (David) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; HARVEY, MELISSA; WOLFE, HERBERT; EVANS, MARIEFRED; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Yeskey, Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); Wade, David; TARANTINO, DAVID A; david.gruber@dshs.texas.gov; KAUSHIK, SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; richard.hunt@hhs.gov; Jolly, Brantley (OS/ASPR/EMMO) (CTR); Cordts, Jerome (CTR); Mansoura, Monique K.

Subject: RE: Red Dawn Rising Start Feb 29

I was curious what is meant by mild disease. Somebody can double check my math.

Attached is a back-of-the-envelope estimate of the impact of COVID on a notional city of 3.3M [The current US population is ~330M, so a notional city of 3.3M is assumed to be 1% of the US population, with 1% of healthcare assets (hospital beds/ICU beds), 1% of healthcare utilization (hospital admissions/hospital BDOCs/ICU BDOCs//ER visits/outpatient visits), and 1% of annual all-cause deaths—a notional average US city representing 1% of the US population]. I chose 3.3.M because this makes the math simple.

Methodology to estimate the impact of COVID on this notional city:

- For the population age ≥ 60 we assumed an attack rate of 30% and applied the cruise ship outbreak data (50% asymptomatic; 12% acutely ill; 2-5% ICU admission; 0.92% CFR)
- For the under age 60 group, we assumed there will be a similar degree of disease transmission (AR=30%) and roughly 50% asymptomatic and 50% mild/moderate disease/ and occasional serious disease requiring them to touch our healthcare system (100% requiring outpatient care/10% ER care). [very conservative estimates]

Really interesting what havoc *mild* disease might cause on this notional city. In this scenario, roughly 89% of those who are infected are asymptomatic or mild disease. I assumed the event would stretch over 90 days—the acceleration in acute care demand in Wuhan was concentrated over a period of 5-6 weeks. So the estimates of demand relative to capacity superimposed over a shorter time period and adjusting for peak demand are much worse than what the numbers convey.

This is why Eva is so concerned about not delaying the implementation of mitigation measures. She understands what is going to happen.

Metro Seattle has a population of ~3.5M (close enough to this notional city).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 5:59 PM To: Dr. Eva K Lee; Eastman, Alexander

Cc: Caneva, Duane; Marcozzi, David; Tracey McNamara; Richard Hatchett; Dr. Eva Lee; WILKINSON, THOMAS; M.D.; James V; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; HAMILTON, CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; HARVEY, MELISSA; WOLFE, HERBERT; EVANS, MARIEFRED; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Yeskey, Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); Wade, David; TARANTINO, DAVID A; david.gruber@dshs.texas.gov; KAUSHIK, SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; richard.hunt@hhs.gov; Jolly, Brantley (OS/ASPR/EMMO) (CTR); Cordts, Jerome (CTR); Mansoura, Monique K.

Subject: RE: Red Dawn Rising Start Feb 29

I don't get the sense that Seattle will consider closing schools (except perhaps reactive school closure due to high absenteeism).

Has Seattle modeled the potential impact to their healthcare delivery system of an unmitigated outbreak? The high % of asymptomatic/mild disease is a bit misleading. It might be eye opening for Seattle to simply overlay the cruise ship data atop their population age ≥60 and assume everyone under 60 has mild disease and even use an attack rate of 20%. Easy enough to do for them.

King County health officials: No reason yet to close schools for COVID-19

Local health departments recommended Monday schools stay open as more announcements of cases of the novel coronavirus were made, but several districts closed schools on Monday anyway, mostly as students were tested.

There were no blanket closures, or a scene of district-wide shutdowns, but different schools had different reasons for closing Monday. As of Monday, no schools in Washington state had confirmed cases of COVID-19.

The schools that have closed so far have done so for deep cleanings after students were either being tested for COVID-19 or had come into close contact with someone who had the virus.

Another school district is closing Tuesday for staff training on how teachers can continue their lesson plans remotely should the schools need to shut down as the virus spreads.

Dr. Jeff Duchin, health officer for King County Public Health, said during a press conference Monday if there are confirmed cases, the agency will work with schools directly to provide guidance.

"Schools don't need to take any special precautions beyond what we've recommended for good hygiene recommendations," he said, mentioning that ill students and staff should stay home from school.

The Centers for Disease Control and Prevention recommends school districts take steps that prioritize the community's health while causing the least amount of disturbance to students.

"Schools should continue to collaborate, share information, and review plans with local health officials to help protect the whole school community, including those with special health needs," the CDC said on its website. "School plans should be designed to minimize disruption to teaching and learning and protect students and staff from social stigma and discrimination."

Two schools in the Mukilteo School District, Mariner High School and Discovery Elementary School, were closed because a student had close contact with the person who had the third case of COVID-19 announced Sunday.

The Snohomish Health District issued a statement that said this was not recommended.

"Though this closure is not necessary from a public health point of view, we know that school districts act out of extra special caution when they are protecting children. And the school knows its community best and is in charge of making decisions about the school," the statement said.

Hazen High School in Renton also closed due to a student who was experiencing flu-like symptoms being tested for COVID-19.

In a statement, the district's superintendent said the student had been sick last week, then said,
"Once learning about this situation, we immediately contacted Public Health Seattle &King
County. Out of an abundance of caution, we will close Hazen High School on Monday, March
2. We have mobilized our custodial staff to begin thoroughly cleaning and disinfecting Hazen."

Across Puget Sound, the North Kitsap School District announced it was closing Kingston High School after a student was being tested for COVID-19. The whole school was being cleaned and disinfected "out of an abundance of caution," according to a statement from the district.

The Northshore School District closed one its schools Monday -- Frank Love Elementary School - after a staff member was being tested for COVID-19. The entire district is shutting down Tuesday for staff training.

"All Northshore schools closed to students so we can provide training to staff to engage students in remote learning that may take place outside the four walls of their classrooms should this become necessary in the coming days," Superintendent Michelle Reid said in a letter to families.

She said the support services staff will also be conducting a deep cleaning of each school in the district.

Lake Washington Institute of Technology closed Monday and <u>plans to remain closed</u> Tuesday as the facilities team cleans and disinfects the campus. The closure, the school said, is out of an "abundance of caution" after 22 students and staff members were at Life Care Center of Kirkland, where there have been several cases of COVID-19. The students and faculty were advised to self-quarantine for 14 days. Lake Washington Institute of Technology plans to reopen Wednesday.

Seattle Public Schools spokesman Tim Robinson <u>said</u> the district has no plans at this time to close schools. In an update posted to its website Sunday, the district said it is ready with "strong emergency procedures and a response plan."

"We are closely monitoring the health and attendance of our students and staff and preparing for any potential disruptions to daily school operations in an effort to minimize the spread of the disease," the update said.

Robinson said the school district has been increasing its communications with families of students and staff members about COVID-19 and has been following the guidelines put forth by the U.S. Centers for Disease Control and Prevention and Public Health Seattle &King County.

"Right now, our thing is just clear communication with the facts as we know them now and clarity," Robinson said.

The district is emphasizing recommendations for students and staff to prevent themselves and others from getting sick, including washing their hands frequently and staying home from school if sick.

Robinson said the schools' custodial staff are also going to focus on cleaning and disinfecting public areas that see a lot of traffic.

As of Monday, there were 14 reported cases of COVID-19 in King County and five deaths. Statewide, there have been six confirmed deaths. Those who are older or who have underlying health issues are more at risk.

Local health officials are recommending simple steps people can take to reduce their risk of getting sick including washing their hands frequently and avoiding touching their face.

Duchin said during the news conference Monday there may have been many cases, but a "vast majority" of them mild. The Snohomish Health District in a statement said, "for 80% of cases, COVID-19 is a mild illness that does not require hospital care."

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Tuesday, March 3, 2020 5:39 PM

To: Eastman, Alexander

Cc: Caneva, Duane; Marcozzi, David; Carter Mecher; Tracey McNamara; Richard Hatchett; Dr. Eva Lee; WILKINSON, THOMAS; M.D.; James V; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; HAMILTON, CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; HARVEY, MELISSA; WOLFE, HERBERT; EVANS, MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Yeskey, Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); Wade, David; TARANTINO, DAVID A; david.gruber@dshs.texas.gov; KAUSHIK, SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; richard.hunt@hhs.gov; Jolly, Brantley (OS/ASPR/EMMO) (CTR); Cordts, Jerome (CTR); Mansoura, Monique K.

Subject: Re: Red Dawn Rising Start Feb 29

School Closure:

I understand school closure will affect lunches for the under-served. There's logistics that come with it. Perhaps some of these children will continue to come in or there has to be alternatives for them to pick up lunches. (I) We do meals-on-wheels logistics. Can school buses+drivers be deployed to make a round of lunch drop offs for these children?

Telework:

At least tele-work is doable on demand now, by many sectors.

evalee-gatech@pm.me https://newton.isye.gatech.edu/DrLee/

mobile: (b)(6)	
Sent with ProtonMail Secure Email.	
Original Message	
On Tuesday, March 3, 2020 4:29 PM, Eastman, Alexander <alexander.eastman@he< td=""><td>.dhs.gov>wrote:</td></alexander.eastman@he<>	.dhs.gov>wrote:

Are we thinking a NEDOCS type dashboard ??

Alexander L. Eastman, MD, MPH, FACS, FAEMS Senior Medical Officer - Operations

Office of the Chief Medical Officer Countering Weapons of Mass Destruction Office U.S. Department of Homeland Security Washington, DC 20528

O: 202-254-5353 C: (b)(6)

Executive Assistant: Nichole Burton nichole.burton2@associates.hq.dhs.gov

A-LAN/NIPR:alexander.eastman@hq.dhs.gov

B-LAN/HSDN/SIPR:alexander.eastman@dhs.sgov.gov

C-LAN/JWICS: aleastman@dhs.ic.gov

(U) Warning: This document is UNCLASSIFIED//FOR OFFICIAL USE ONLY (U//FOUO). It contains information that may be exempt from public release under the Freedom of Information Act

> On Mar 3, 2020, at 4:22 PM, Caneva, Duane <duane .caneva

@hq.dh s.gov> wrote:

Looking at a project to develop triggers for community mitigation based on proxy data such as ICU cases, deaths, surveillance diagnostics, and gap between ILI presentations with ILI + panels. We have good data from other cities around the world on what their data showed and when they implemented mitigation efforts. We can measure that data in near-real time and use it as objective measure to pull the trigger.

Thoughts?

From: Dr. Eva K Lee

<evalee-

gatech@pm.me>

Sent: Tuesday, March 3,

2020 3:53 PM

To: Marcozzi, David

<DMarcozzi@som.umar

yland.edu>

Cc: Carter Mecher

<cmecher@charter.net</pre>

>; Tracey McNamara

<tmcNamara@western

u.edu>; Richard

Hatchett

<richard.hatchett@cepi

.net>; Dr. Eva Lee

(b)(6)

WILKINSON,

THOMAS

<thomas.wilkinson@hq

.dhs.gov>; M.D.

<MVCALLAHAN@mgh.h

arvard.edu>; James V

<james.lawler@unmc.e

du>; Caneva, Duane

<duane.caneva@hq.dhs

.gov>; Tom Bossert

<tom.bossert@me.com

```
>; Charity A@CDPH
```

<Charity.Dean@cdph.c

a.gov>; Ralph S

<rbaric@email.unc.edu

>; Gregory J

<MartinGJ@state.gov>;

William

<WaltersWA2@state.g

ov>; HAMILTON,

CAMERON

<cameron.hamilton@h

q.dhs.gov>;

/AV/GV

Daniel (OS/ASPR/SPPR)

<Daniel.Dodgen@hhs.g

ov>; Kristin

(OS/ASPR/SPPR)

<Kristin.DeBord@hhs.g

ov>; Sally

(OS/ASPR/SPPR)

<Sally.Phillips@hhs.gov

>; Matthew J CIV

USARMY (USA)

<(b)(6)

(h)(6) ; Lisa Koonin

4/hV/G1

; HARVEY, MELISSA

<melissa.harvey@hq.dh

s.gov>; WOLFE,

HERBERT

<herbert.wolfe@hq.dhs

.gov>; Eastman,

Alexander

<alexander.eastman@h

q.dhs.gov>; EVANS,

MARIEFRED

<mariefred.evans@asso

ciates.hq.dhs.gov>;

jwleduc@utmb.edu;

Robert

(OS/ASPR/BARDA)

<Robert.Johnson@hhs.

gov>; Yeskey, Kevin

<kevin.yeskey@hhs.gov

>; Gary

(OS/ASPR/BARDA)

<Gary.Disbrow@hhs.go

v>; John

(OS/ASPR/SPPR)

<John.Redd@hhs.gov>;

David (Chris)

(OS/ASPR/IO)

<David.Hassell@hhs.go

v>; Joseph

(OS/ASPR/IO)

<Joseph.Hamel@hhs.go

v>; Luciana

<LBorio@iqt.org>; Dan

<DHanfling@iqt.org>;

Eric (San Diego County)

<Eric.McDonald@sdcou

nty.ca.gov>; Wade,

David

<david.wade@hq.dhs.g

ov>; TARANTINO,

DAVID A

<david.a.tarantino@cb

p.dhs.gov>;

david.gruber@dshs.tex

as.gov; KAUSHIK,

SANGEETA

<sangeeta.kaushik@hq.

dhs.gov>; Scott

<Scott.Lee@hhs.gov>;

Larry G

<PadgetLG@state.gov>;

Ryan Morhard

<Ryan.Morhard@wefor

um.org>; Steven

Jt(tCHFStDPH)

<steven.stack@ky.gov>;

tJerome (HHS/OASH)

<Jerome.Adams@hhs.g

ov>; DC

<jessica.fantinato@usd

a.gov>; DC

<michelle.colby@usda.

gov>;

danny.shiau@usuhs.ed

u; Danny Shiau

<dshiau@cghe.org>;

richard.hunt@hhs.gov

Subject: Re: Red Dawn Rising Start Feb 29 CAUTION: This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. Contact your component SOC with questions or concerns.

Yes, we ought to act now. Ok, I know I have been urging this for a long time. I want to cover a few items discussed here:

1. Social distancing, NPI can deter the spread

Singapore and Hong Kong prove that without any definitive treatment, and absence of any prophylactic MCM protection, closing schools, home-office business can make a huge difference. I ran a few models for school closure and business tele-work for Santa Clara, King County and I want to share some graphs here.

Santa Clara: One positive case on Jan 31. I look at closing school as of today, and tele-work by ~0.5 million workers. We can see the rapid decrease of spreading. I also contrast the results if we close a week from now, or two weeks from now.

Please note, the parameters need not be perfect. The idea is to contrast how NPI can work very effectively and we MUST act now and make it a success.

<image001.jpg>

2. Quarantine a city?

I believe there's a contingency plan (I did recall working with National Guard on it) where we will quarantine everyone inside a city if there's a severe disease spread. It is like what China did for Wuhan. With MCM, we can give citizens MCM before they leave. There is no MCM now.

While one can argue a federal quarantine and total lock down of a city is more effective, I think Lu's comment is on-point. We cannot expect perfect participation. Everyone is going to make a decision. If we can contain 80% of the people's movement (as in Hong Kong and Singapore, or in the Santa Clara model above), you can see that we are stopping the spread. Clearly, those who get out of the city might very well be infected and sow a seed to other places. Yes, we probably need to think harder what to do. The NPI of closing schools and tele-work in a sense is volunteering quarantine. It can work beautifully, and very effectively. Note that Hong Kong has

only limited transportation ban. The citizens and the healthcare workers protest to close the border, but the border wasn't closed. So the effort is volunteering quarantine of their own residents and then quarantine for everyone who enters the city. Together, it puts a brake on the spread. It is right to do it now.

3. King County Seattle

True to the form of the COVID-19 and the mortality of elderly, which is 1.3%, 3.6%, 8[^] and 14.8% from 50 years owards, for every 10 year age bracket. So we see the very high mortality of the nursing home. Although I know next to nothing about what's going on in China, these figures seem to be a good guiding point for us.

What troubles me about the spread is that it is almost like by-the-book. We got school teacher get infected, nursing home, a very sick patient in ICU (healthcare workers got quarantine),.. you see where we are heading, every vulnerable population is hit.

4. Limited Transportation Ban

So last week, I wrote that we need to include New York and Atlanta in the screening. Bad enough this week we have cases in these cities. I do think we need to step up in reducing the South Korean flights into the US. Hong Kong uses brand-new public estates to quarantine the incoming travelers from high-risk regions. It is a luxury that we do not have. Here, we must figure out an effective quarantine for these entering visitors or returning citizens. Maybe it is time to stop visitors from S Korea and Italy. It is just temporary. So we can focus on handling citizens coming back. We need to let them in. Cannot leave them outside their own country.

evalee-gatech@pm.me		
https://newton.isye.gatech.edu/DrLee/		
mobile:(b)(6)		
Sent with ProtonMail Secure Email.		
Original Message		
On Tuesday, March 3, 2020 1:56 PM, Marcozzi, David < DMarcozzi@som.umaryland.edu >wrote:		
Act. Now.		
Respectfully,		
David Marcozzi, MD, MHS-CL, FACEP		
Associate Professor		
Director of Population Health		

Department of Emergency Medicine

University of Mary	land School	of Medicine
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https://em.umaryland.edu

Associate Professor

Department of Epidemiology and Public Health

University of Maryland School of Medicine

http://www.medschool.umaryland.edu/programs/disparities/

Assistant Chief Medical Officer for Acute Care

University of Maryland Medical Center

http://www.umm.edu

Deputy Medical Director

Baltimore City Fire Department

https://protect2.fireeye.com/url?k=be237652-e2767f82-be23476d-0cc47a6a52de-0cb4fd4e04296aa5&u=https://fire.baltimorecity.gov/

Mailing Address:

6th floor, Suite 200

110 South Paca Street

Baltimore, Maryland 21201

410-328-8025 (office)

410-328-8028 (fax)

dmarcozzi@em.umaryland.edu

Take time to deliberate; but when the time for action arrives, stop thinking and go in. -President Andrew Jackson

From: Carter Mecher <cmecher@charter.net> Date: Tuesday, March 3, 2020 at 1:54 PM To: Tracey McNamara <tmcNamara@westernu.edu>, Richard Hatchett <richard.hatchett@cepi.net>, "Dr. Eva Lee" \(\frac{1}{16} \) \(\f Ce: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>, "mvcallahan@mgh.harvard.edu" <MVCALLAHAN@mgh.harvard.edu>, James Lawler <james.lawler@unmc.edu>, Duane Caneva <duane.caneva@hq.dhs.gov>, David Marcozzi <DMarcozzi@som.umaryland.edu>, Tom Bossert <tom.bossert@me.com>, "Charity A@CDPH" <Charity.Dean@cdph.ca.gov>, Ralph S <rbaric@email.unc.edu>, Gregory J <MartinGJ@state.gov>, William <WaltersWA2@state.gov>, CAMERON <cameron.hamilton@hq.dhs.gov>, >, "Daniel (OS/ASPR/SPPR)" "(b)(6) <(b)(6) <Daniel.Dodgen@hhs.gov>, "Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "Sally (OS/ASPR/SPPR)" <Sally.Phillips@hhs.gov>, "matthew. hepburn" Lisa Koonin (b)(6) >, MELISSA <(b)(6) <melissa.harvey@hq.dhs.gov>, HERBERT <HERBERT.WOLFE@hq.dhs.gov>, Alexander <alexander.eastman@hq.dhs.gov>, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>, "jwleduc@utmb.edu" <jwleduc@utmb.edu>, "Robert (OS/ASPR/BARDA)" <Robert.Johnson@hhs.gov>, Kevin Yeskey <kevin.yeskey@hhs.gov>, "Gary (OS/ASPR/BARDA)" <Garv.Disbrow@hhs.gov>, "John (OS/ASPR/SPPR)" <John.Redd@hhs.gov>, "David (Chris) (OS/ASPR/IO)" <David.Hassell@hhs.gov>, "Joseph (OS/ASPR/IO)" < Joseph. Hamel@hhs.gov>, Luciana < LBorio@igt.org>, Dan <DHanfling@iqt.org>, "Eric (San Diego County)" <Eric.McDonald@sdcounty.ca.gov>, David <david.wade@hq.dhs.gov>, DAVID A <david.a.tarantino@cbp.dhs.gov>, "david.gruber@dshs.texas.gov" <david.gruber@dshs.texas.gov>, SANGEETA <sangeeta.kaushik@hq.dhs.gov>, Scott <Scott.Lee@hhs.gov>, Larry G <PadgetLG@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Jt(tCHFStDPH)" <steven.stack@kv.gov>, "tJerome (HHS/OASH)" <Jerome.Adams@hhs.gov>, DC <jessica.fantinato@usda.gov>, DC <michelle.colby@usda.gov>, "danny.shiau@usuhs.edu" <danny.shiau@usuhs.edu>, Danny Shiau <dshiau@eghe.org>, "richard.hunt@hhs.gov" <ri>chard.hunt@hhs.gov>, "Dr. Eva K Lee" <evalee-gatech@pm.me></ri> Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert

(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH eb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a
Seattle man infected with a different
coronavirus, SARS-CoV-2. Although they
can't say for sure that the medication worked,
his condition improved one day after
receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says.

"We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett < richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee <(b)(6) Ce: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V < james.lawler@unmc.edu>; Duane <a href="mailto:squar <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6) Daniel (OS/ASPR/SPPR) < Daniel Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) √h)/6) ; Lisa Koonin (b)(6) : MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <<u>steven.stack@ky.gov</u>>; tJerome (HHS/OASH) <<u>Jerome.Adams@hhs.gov</u>>; DC <<u>jessica.fantinato@usda.gov</u>>; DC <<u>michelle.colby@usda.gov</u>>; <u>danny.shiau@usuhs.edu</u>; Danny Shiau <<u>dshiau@cghe.org</u>>; <u>richard.hunt@hhs.gov</u>; Dr. Eva K Lee <<u>evalee-gatech@pm.me</u>>

Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

1

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4

I m m e

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die. From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara < tmcNamara@westernu.edu>; Dr. Eva Lee < eva.evalee.lee64@gmail.com>

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <ameron.hamilton@hq.dhs.gov>;/b)/6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) >: Lisa Koonin (b)(6) >: MELISSA Thire) <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colbv@usda.gov>; dannv.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evaleegatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; [b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of: Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

1

2

V i r a 1 1 0

adhighestear I yintheill ness, when sympto m s m i l d o r a b s And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards	
Raina	
Professor Raina MacIntyre	
Head Biosecurity Research Program Kirby Institut Professor of Global Biosecurity &NHMRC Principa	
From: Carter Mecher <cmecher@charter.ne< th=""><th>et></th></cmecher@charter.ne<>	et>
Sent: Monday, March 02, 2020 11:45 AM	
To: Dr. Eva Lee (h)(6) <tmcnamara@westernu.edu></tmcnamara@westernu.edu>	; Tracey McNamara
Ce: THOMAS <thomas, td="" wilkinson@<=""><td>hq.dhs.gov>; M.D.</td></thomas,>	hq.dhs.gov>; M.D.
<mvcallahan@mgh.harvard.edu>; Jar</mvcallahan@mgh.harvard.edu>	CCC -
	rcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPF <rbaric@email.unc.edu>; Richard Hatchett</rbaric@email.unc.edu></tom.bossert@me.com>	

(OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)

<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander

(b)(6)

; Lisa Koonin (h)(6) ; MELISSA

- <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
- <<u>David.Hassell@hhs.gov</u>>; Joseph (OS/ASPR/IO) <<u>Joseph.Hamel@hhs.gov</u>>; Luciana
- <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
- < Eric.McDonald@sdcounty.ca.gov >; David < david.wade@hq.dhs.gov >; DAVID A
- <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
- <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
- < PadgetLG@state.gov>; Ryan Morhard < Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
-) <<u>steven.stack@ky.gov</u>>; tJerome (HHS/OASH) <<u>Jerome.Adams@hhs.gov</u>>; DC
- <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;

Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6)

OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon,	Mar 2.	2020 at	11:58	AM Dr.	Eva Lee	e 4hV61	>wrote:
PRINCE TAXABLE	TAXABLE MARK	1 No. 22 Sept. 25, 194.4	A 4 4 50 10	A SALE ME AL	THE PART OF THE PARTY		1110101

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara < tmcNamara@westernu.edu>wrote:

https://protect2.fireeye.com/url?k=1fbb187b-43ee11ab-1fbb2944-0cc47a6a52de-d0ae55c33a351c93&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (h)/6)	- 7000	}	
Sent: Monday, March 2, 2020 7:	45:51 AM		
To: THOMAS < THOMAS. WILL	KINSON@hq.dhs	.gov>; M.D.	
<mvcallahan@mgh.harvare< th=""><th>d.edu>; Tracey M</th><th>cNamara</th><th></th></mvcallahan@mgh.harvare<>	d.edu>; Tracey M	cNamara	
<tmcnamara@westernu.edu>; Ja</tmcnamara@westernu.edu>	mes V < james.lav	vler@unmc.edu>; Duar	ne
<duane.caneva@hq.dhs.gov>; Da</duane.caneva@hq.dhs.gov>	vid < <u>DMarcozzi</u> (@som.umaryland.edu>;	Tom Bossert
<tom.bossert@me.com>; Charity</tom.bossert@me.com>	A@CDPH < Cha	rity.Dean@cdph.ca.gov	>; Ralph S
< <u>rbaric@email.unc.edu</u> >; Richard			Company of the compan
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<kristin.debord@hhs.gov>; Sall</kristin.debord@hhs.gov>		R) < <u>Sally.Phillips@hh</u> :	s.gov>;
Matthew J CIV USARMY (USA			sa Koonin
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<h>HERBERT.WOLFE@hq.dhs.go</h>			
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<kevin.yeskey@hhs.gov>; Gary</kevin.yeskey@hhs.gov>	(OS/ASPR/BARE	OA) < Gary. Disbrow@hl	hs.gov>; John
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< <u>LBorio@iqt.org</u> >; Dan < <u>DHanf</u>			
< Eric.McDonald@sdcounty.ca.go	ov>; David <davi< td=""><td>d.wade@hq.dhs.gov>; I</td><td>DAVID A</td></davi<>	d.wade@hq.dhs.gov>; I	DAVID A
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<david.gruber@dshs.texas.gov>;</david.gruber@dshs.texas.gov>	SANGEETA <sa< td=""><td>ngeeta.kaushik@hq.dhs</td><td>s.gov>; Scott</td></sa<>	ngeeta.kaushik@hq.dhs	s.gov>; Scott
< <u>Scott.Lee@hhs.gov</u> >; Larry G <	PadgetLG@state	.gov>; Ryan Morhard	
<ryan.morhard@weforum.org>;</ryan.morhard@weforum.org>	Steven Jt(tCHFS	tDPH) < steven.stack@	ky.gov>;
tJerome (HHS/OASH) < Jerome./	Adams@hhs.gov>	; DC <jessica.fantinato< td=""><td>@usda.gov>;</td></jessica.fantinato<>	@usda.gov>;
DC <michelle.colby@usda.gov>;</michelle.colby@usda.gov>	danny.shiau@us	uhs.edu <danny.shiau@< td=""><td>usuhs.edu>;</td></danny.shiau@<>	usuhs.edu>;
Danny Shiau <dshiau@cghe.org></dshiau@cghe.org>	; richard.hunt@h	hs.gov <richard.hunt@l< td=""><td>hhs.gov>; Eva</td></richard.hunt@l<>	hhs.gov>; Eva
Lee <{(b)(6)	; Carter Meche	er <cmecher@charter.ne< td=""><td>et></td></cmecher@charter.ne<>	et>
Subject: RE: Red Dawn Rising S	Start Feb 29		

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pi	m.me_
https://newton.isy	e.gatech.edu/DrLee/
mobile: (h)(6)	\Box
(h)(6)	

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group Recipient: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

(FYD18UHF23SFDL1)/cn=Recipients/cn=53034/52f35a431/aa/4f46348442d39-Bright, Rick, Bright@hhs.gov>

< Kick.bright@nns.gov>

Sent Date: 2020/03/04 07:30:11

Delivered Date: 2020/03/04 07:30:13

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:07:16
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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rom: Carter Mecher <cmecher@charter.net></cmecher@charter.net>
ent: Tuesday, March 3, 2020 1:55 PM
o: Tracey McNamara <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
va Lee <(b)(6) >
c: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>
ames.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu>
/alters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
: Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4(b)(6) ; Lisa Koonin < (h)(6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) (USDA.GOV) </p Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO)
<Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Fric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Uerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI); and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

From: Richard Hatchett

Lee

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William;

CAMERON; Thorax Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR);

Matthew J CIV J ISAPMY (USA): Lies Koopin; MELISSA: HERBERT: Alexander: MARIEERED;

Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher < cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee ﴿١٨١٨)

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V

<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David

<DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH

<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett

<richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>;

CAMERON <cameron.hamilton@hq.dhs.gov>[FhVE) Daniel (OS/ASPR/SPPR)

<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)

<<u>Sally.Phillips@hhs.gov</u>>; Matthew J CIV USARMY (USA) √(b)(6) >; Lisa Koonin

√h)(6)

; MELISSA < melissa.harvey@hq.dhs.gov>; HERBERT

<HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED

<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)

<Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)

<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)

<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>;

Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcounty.ca.gov>; David

<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;

SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G

<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)

<steven.stack@ky.gov>; tJerome (HHS/OASH) <<u>Jerome.Adams@hhs.gov</u>>; DC <<u>jessica.fantinato@usda.gov</u>>; DC <<u>michelle.colby@usda.gov</u>>; <u>danny.shiau@usuhs.edu</u>; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Physion Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Lerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Dr. Eva K Lee
Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine

Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Sent: Monday, March 02, 2020 11:45 AM
To: Dr. Eva Lee 4/5//6) >; Tracey McNamara <tmcnamara@westernu.edu></tmcnamara@westernu.edu>
Cc: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>
<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>
< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@email.unc.edu</u> >; Richard Hatchett
<ri>crichard.hatchett@cepi.net>; Gregory J <martingj@state.gov>; William <walterswa2@state.gov>;</walterswa2@state.gov></martingj@state.gov></ri>
CAMERON <cameron.hamilton@hq.dhs.gov>; [h)(e) Daniel (OS/ASPR/SPPR)</cameron.hamilton@hq.dhs.gov>
<pre><daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov></pre>
< <u>Sally.Phillips@hhs.gov</u> >; Matthew J CIV USARMY (USA) (b) (6) ; Lisa Koonin
; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT</melissa.harvey@hq.dhs.gov>
< <u>HERBERT.WOLFE@hq.dhs.gov</u> >; Alexander < <u>alexander.eastman@hq.dhs.gov</u> >; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)</mariefred.evans@associates.hq.dhs.gov>
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></robert_johnson@hhs.gov>
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov></gary.disbrow@hhs.gov>
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></joseph.hamel@hhs.gov></david.hassell@hhs.gov>
Dan <dhanfling@iqt.org>; Eric (San Diego County) <eric.mcdonald@sdcounty.ca.gov>; David</eric.mcdonald@sdcounty.ca.gov></dhanfling@iqt.org>
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org></padgetlg@state.gov>
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau</michelle.colby@usda.gov></jessica.fantinato@usda.gov>
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me></dshiau@cghe.org>
Subject: RE: Red Dawn Rising Start Feb 29
6 deaths in Seattle

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle missed the window...It is too late for NPIs

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six. <u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; MARIEFRED; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities — those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <<u>tmcNamara@westernu.edu</u>>wrote: https://protect2.fireeye.com/url?k=85de600c-d98a7970-85de5133-0cc47adc5fa2d2baa5f6b505019f&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

From: Dr. Eva Lee (b)(6)
Sent: Monday, March 2, 2020 7:45:51 AM
To: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>;</mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>
Tracey McNamara <tmcnamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu></tmcnamara@westernu.edu>
<duane.caneva@hq.dhs.gov>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu></duane.caneva@hq.dhs.gov>
<tom.bossert@me.com>; Charity A@CDPH <charity.dean@cdph.ca.gov>; Ralph S</charity.dean@cdph.ca.gov></tom.bossert@me.com>
<rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J</richard.hatchett@cepi.net></rbaric@email.unc.edu>
<martingj@state.gov>; William <walterswa2@state.gov>; CAMERON</walterswa2@state.gov></martingj@state.gov>
<cameron.hamilton@hq.dhs.gov>; VEV/EV <1/b)(6) >; Daniel</cameron.hamilton@hq.dhs.gov>
(OS/ASPR/SPPR) <daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR)</daniel.dodgen@hhs.gov>
<kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Matthew J CIV</sally.phillips@hhs.gov></kristin.debord@hhs.gov>
USARMY (USA) {/h)/6\ }; Lisa Koonin √b)(6) ;
MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</mariefred.evans@associates.hq.dhs.gov></alexander.eastman@hq.dhs.gov>
jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)</jwleduc@utmb.edu>
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></robert_johnson@hhs.gov>
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (Chris)</john.redd@hhs.gov></gary.disbrow@hhs.gov>
(OS/ASPR/IO) <david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>;</joseph.hamel@hhs.gov></david.hassell@hhs.gov>
Luciana <lborio@iqt.org>; Dan <dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org></lborio@iqt.org>
<eric.mcdonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov></eric.mcdonald@sdcounty.ca.gov>
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov</david.a.tarantino@cbp.dhs.gov>
<david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott</sangeeta.kaushik@hq.dhs.gov></david.gruber@dshs.texas.gov>
<scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan Morhard</padgetlg@state.gov></scott.lee@hhs.gov>
<ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov></ryan.morhard@weforum.org>
(HHS/OASH) <jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>; Danny Shiau</danny.shiau@usuhs.edu></michelle.colby@usda.gov>
<dshiau@cghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov></dshiau@cghe.org>
<pre></pre> ; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Subject: RE: Red Dawn Rising Start Feb 29
We need actions, actions, actions and more actions. We are going to have pockets of epicenters
across this country, West coast, East coast and the South. Our policy leaders must act
now. Please make it happen!
evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile:(b)(6)
(b)(6)
Mainton of

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306878740A4A60745E2-JOHNSON, RO
<Robert_Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick_Bright@hhs.gov>

Sent Date: 2020/03/03 21:07:15

Delivered Date: 2020/03/03 21:07:16

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 07:30:26
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell:(b)(6)

email: Robert.Johnson@HHS.gov

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From: Carter N	fecher <cmecher@charter.net></cmecher@charter.net>
Sent: Wednesd	day, March 4, 2020 6:45 AM
To: Tracey Mcf	Namara <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
Eva Lee VANCE	
Cc: THOMAS <	THOMAS.WILKINSON@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu>
<james.lawler@< td=""><td>@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></td></james.lawler@<>	@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
<dmarcozzi@s< td=""><td>om.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></td></dmarcozzi@s<>	om.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
<charity.dean< td=""><td>@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu></td></charity.dean<>	@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu>
Walters, Willia	m (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
(b)(6)	; Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (h)(6) ; Lisa Koonin (b)(6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) (USDA.GOV) </p Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

Sent from Mail for Windows 10

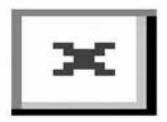
From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?



Image

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (Name) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount
 of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- 3. If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- 5. There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems

 A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (AND): Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH);

<u>tJerome (HHS/OASH)</u>; <u>DC</u>; <u>DC</u>; <u>danny.shiau@usuhs.edu</u>; <u>Danny Shiau</u>; <u>richard.hunt@hhs.gov</u>; <u>Dr. Eva K</u> <u>Lee</u>

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR kebFJsGbGIwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also

worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (b)(6) Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; VhV6) Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) Lisa Koonin < (h)(6) >; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (BYG) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter M	fecher <cmecher@charter.net></cmecher@charter.net>	
Sent: 03 March	2020 03:59	
To: Tracey McN	Namara <tmcnamara@westernu.edu>; Dr. Eva Lee √b)(6)</tmcnamara@westernu.edu>	→
	THOMAS.WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.ee	du>; James V
<james.lawler@< td=""><td>@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></td><td></td></james.lawler@<>	@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>	
<dmarcozzi@so< td=""><td>om.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CD</tom.bossert@me.com></td><td>PH</td></dmarcozzi@so<>	om.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CD</tom.bossert@me.com>	PH
<charity.dean@< td=""><td>@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett</rbaric@email.unc.edu></td><td></td></charity.dean@<>	@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett</rbaric@email.unc.edu>	
<ri>chard.hatche</ri>	ett@cepi.net>; Gregory J < MartinGJ@state.gov>; William < WaltersWA2@s	tate.gov>;
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<sally.phillips@< td=""><td>hhs.gov>; Matthew J CIV USARMY (USA) (b)(6)</td><td>; Lisa Koonin</td></sally.phillips@<>	hhs.gov>; Matthew J CIV USARMY (USA) (b)(6)	; Lisa Koonin
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<robert.johnso< td=""><td>on@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></td><td></td></robert.johnso<>	on@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov>	
<gary.disbrow(< td=""><td>@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS</td><td>S/ASPR/IO)</td></gary.disbrow(<>	@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS	S/ASPR/IO)
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Dan < DHanfling	g@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcounty.ca.gov>; Da	avid
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<dshiau@cghe.< td=""><td>.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me></td><td></td></dshiau@cghe.<>	.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me>	
Subject: RE: Red	d Dawn Rising Start Feb 29	

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (A) (S) (Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Lierome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine

Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher < cmecher@charter.net > Sent: Monday, March 02, 2020 11:45 AM

To: Dr. Eva Lee

| Tracey McNamara < tmcNamara@westernu.edu > Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov >; M.D. < MVCALLAHAN@mgh.harvard.edu >; James V < james.lawler@unmc.edu >; Duane < duane.caneva@hq.dhs.gov >; David

< <u>Diviarcozzi@som.umaryiand.edu</u> >; fom Bossert < <u>tom.bossert@me.com</u> >; Charity A@CDPH
< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@email.unc.edu</u> >; Richard Hatchett
<ri>crichard.hatchett@cepi.net>; Gregory J < MartinGJ@state.gov>; William < WaltersWA2@state.gov>;</ri>
CAMERON <cameron.hamilton@hq.dhs.gov>;(h)(6) ; Daniel (OS/ASPR/SPPR)</cameron.hamilton@hq.dhs.gov>
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov>
< <u>Sally.Phillips@hhs.gov</u> >; Matthew J CIV USARMY (USA) (USA) (USA) ; Lisa Kooning
(h)(6) ; MELISSA < melissa.harvey@hq.dhs.gov>; HERBERT
< HERBERT.WOLFE@hq.dhs.gov>; Alexander < alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)</mariefred.evans@associates.hq.dhs.gov>
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></robert_johnson@hhs.gov>
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov></gary.disbrow@hhs.gov>
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></joseph.hamel@hhs.gov></david.hassell@hhs.gov>
Dan <dhanfling@iqt.org>; Eric (San Diego County) <eric.mcdonald@sdcounty.ca.gov>; David</eric.mcdonald@sdcounty.ca.gov></dhanfling@iqt.org>
david.gruber@dshs.texas.gov">david.gruber@dshs.texas.gov ;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org></padgetlg@state.gov>
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<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me></dshiau@cghe.org>
Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

Cc: THOMAS; M.D.; James Y; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Exus	To: Tracey McNamara	
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Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>;</richard.hatchett@cepi.net></rbaric@email.unc.edu>		

Gregory J < MartinGJ@state.gov>; William < WaltersWA2@state.gov>; CAMERON

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(OS/ASPR/SPPR) < John.R.	edd@hhs.gov>;	David (Chris) (OS/ASPR/IO)
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Eva Lee (h)/6)		Carter Mecher <cmecher@charter.net></cmecher@charter.net>

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me https://newton.isye.gatech.edu/DrLee/ mobile: (b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306878740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f3Sa4317aa74f46348442d39-Bright, Ric

<Rick,Bright@hhs.gov>

Sent Date: 2020/03/04 07:30:25

Delivered Date: 2020/03/04 07:30:26

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:08:17
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

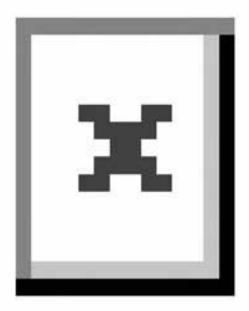
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Sent: Tuesday,	, March 3, 2020 4:18 PM
To: Tracey Mc	Namara <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
Eva Lee VINVE	
Cc: THOMAS <	THOMAS.WILKINSON@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu>
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Walters, Willia	im (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
h)/6)	Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4/6/6/ ; Lisa Koonin (/h)/6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) (USDA.GOV) Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29



Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) : Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH);
tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Local Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (A) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-inhumans-doctor-

says?fbclid=lwAR1mBA6yW0sR_kebFJsGbGlwu95UvuDknNEWs7NP_2kX517LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;

- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (NAVA)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (b)(6)

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V

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<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David
<DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH
<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett
<ri>richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>;</ri>
CAMERON <cameron.hamilton@hq.dhs.gov>; [Java] Daniel (OS/ASPR/SPPR)
<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<<u>Sally.Phillips@hhs.gov</u>>; Matthew J CIV USARMY (USA) < VENUS
                                                                                 p; Lisa Koonin
                    >; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT
4/b)(6)
<HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)
<Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)
<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>;
Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcounty.ca.gov>; David
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>
Subject: RE: Red Dawn Rising Start Feb 29
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Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett;

Gregory J; William; CAMERON; (b)(6)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR);

Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander;

MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John

(OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego

County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard;

Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9

days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- 3. Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine

Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee (h)(R) ; Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <ri>chard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>;</ri> CAMERON < cameron.hamilton@hq.dhs.gov>; VhV6\ : Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4(b)(6) ; Lisa Koonin ; MELISSA < melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamei@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon	Mar 2	2020 at 11:58 AM Dr. Eva Lee √h\/	Surete	
On Mon,	iviar Z,	ZUZU at 11:58 AIVI Dr. EVa Lee VKV	'A\ Pwrote	30

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <<u>tmcNamara@westernu.edu</u>>wrote: https://protect2.fireeye.com/url?k=4a4e0f5d-161a2676-4a4e3e62-0cc47a6d17cc-83ccb450df4ae7de&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

Get Outlook for Android

From: Dr. Eva Lee Vh)/6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; **一**<(b)(6) : Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) >; Lisa Koonin √h\/R\ >; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) < Gary Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@igt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>;

danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee ; Eva Lee ;

Carter Mecher < cmecher@charter.net > Subject: RE: Red Dawn Rising Start Feb 29

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me

https://newton.isye.gatech.edu/DrLee/

mobile: (h)(6)

(h)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

Recipient: (FYD1BOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/03 21:08:16

Delivered Date: 2020/03/03 21:08:17

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:51
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Hunt, Richard (US/ASF	PR/EMMO) <richard.hunt@hhs.gov></richard.hunt@hhs.gov>	
Sent: Wednesday, March 4,	2020 6:01 PM	
To: Dr. Eva K Lee <evalee-gat< td=""><td>tech@pm.me>; Carter Mecher <cmecher@charter.net></cmecher@charter.net></td><td></td></evalee-gat<>	tech@pm.me>; Carter Mecher <cmecher@charter.net></cmecher@charter.net>	
Cc: Tracey McNamara <tmcn< td=""><td>Namara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.ne< td=""><td>et>; Dr.</td></richard.hatchett@cepi.ne<></td></tmcn<>	Namara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.ne< td=""><td>et>; Dr.</td></richard.hatchett@cepi.ne<>	et>; Dr.
Eva Lee (/b)/6)	; THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D.</thomas.wilkinson@hq.dhs.gov>	
<mvcallahan@mgh.harva< td=""><td>rd.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.G</james.lawler@unmc.edu></td><td>OV)</td></mvcallahan@mgh.harva<>	rd.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.G</james.lawler@unmc.edu>	OV)
<duane.caneva@hq.dhs.gov< td=""><td>>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu></td><td></td></duane.caneva@hq.dhs.gov<>	>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>	
<tom.bossert@me.com>; Ch</tom.bossert@me.com>	narity A@CDPH <charity.dean@cdph.ca.gov>; Ralph S</charity.dean@cdph.ca.gov>	
<rbaric@email.unc.edu>; Gro</rbaric@email.unc.edu>	egory J <martingj@state.gov>; Walters, William (STATE.GOV)</martingj@state.gov>	
<walterswa2@state.gov>; C/</walterswa2@state.gov>	AMERON <cameron.hamilton@hq.dhs.gov>; Vhygy book</cameron.hamilton@hq.dhs.gov>	dgen,

Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV ; Lisa Koonin (b)(6) USARMY (USA) (h)/6) >: MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu Subject: RE: Red Dawn Rising Start Feb 29

Am tracking this really valuable thread among the best of the best....

Not trying to clog anyone's in box but below caught my attention enough to share w/ the group.

Below abstract not peer reviewed. Wouldn't take it to the bank, but haven't seen any prior studies on alternate care site impact on mortality. Gratefully, not many opportunities to study this.

Caught my attention in that it showed decrease in mortality once they implemented the makeshift hospitals. Odd they added the ambient temp in same abstract, but tracks w/others I've seen on the temp changes.

Rick

Sent from my iPhone

Begin forwarded message:

From: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>

Date: March 2, 2020 at 5:43:13 PM EST

Subject: medRxiv: The Effects of "Fangcang, Huoshenshan, and Leishenshan" Makeshift Hospitals and

Temperature on the Mortality of COVID-19

The Effects of "Fangcang, Huoshenshan, and Leishenshan" Makeshift Hospitals and Temperature on the Mortality of COVID-19

Yuwen Cai, Tianlun Huang Sr., Xin Liu Sr., Gaosi Xu Sr.

doi: https://doi.org/10.1101/2020.02.26.20028472

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

Abstract

- Info/History
- Metrics
- . .
- . .
- Preview PDF

Abstract

Background In December 2019, a novel coronavirus disease (COVID-19) broke out in Wuhan, China, however, the factors affecting the mortality remain unclear. Methods Thirty-two days of data that were shared by China National Health Commission and China Weather Net were collected using standard forms. The difference in the mortality of confirmed and severe cases before and after the use of Fangcang, Huoshenshan, and Leishenshan makeshift hospitals (MSHs) was tested using Mann-Whitney U test. We also studied whether air temperature (AT) could affect the above outcomes of COVID-19 cases by performing Spearman analysis. Results The mortality of confirmed cases was significantly decreased both in Wuhan (U = 1, P <0.001) and Hubei (U = 0, P <0.001), while in non-Hubei regions, as a contrast, the mortality of confirmed cases remained unchanged (U = 40, P = 0.139). However, another eight days later, changes in the mortality in non-Hubei regions also became significant (U = 73, P = 0.039). Mortality of confirmed cases was found to be significantly correlated with temperature both in Wuhan (r = -0.441, P = 0.012) and Hubei (r = -0.440, P = 0.012). Conclusions Our findings indicated that both the use of MSHs and the rise of AT were beneficial to the survival of COVID-19 cases.

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From: Dr. Eva K Lee <evalee-gatech@pm.me> Sent: Wednesday, March 4, 2020 5:48 PM To: Carter Mecher <cmecher@charter.net> Cc: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. ; THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;\h\raketa\rake ; Dodgen, Daniel (OS/ASPR/SPPR) < Daniel Dodgen@HHS.GOV >; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4/h1/61 Lisa Koonin (h)(6) >; MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David

<a href="mailto:color:d

Subject: RE: Red Dawn Rising Start Feb 29

I wonder maybe everyone is waiting for the 8 billion funds before they are ready to get into the battlefield against covid-19. I hope they are seeing it as a system where we need to take care of pre-emptive measures (which the optimal timing has past), rapid screening (same too past the optimal timing), treatment resources, and vaccien design. Lots of catch up to do even with 8 billion dollars. Hopefully they can optimize wisely.

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 5:14 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

(b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally
(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;
Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary
(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph
(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;
david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

I think China is a bit late in taking the necessary actions and then they slammed the brake hard and tried to stop it. It's a huge brake -- of complete seal off of the city and massive number of beds and military medical providers introduced. They missed the early sign because noone wants to believe that it would spiral out of control. Their previous SARS experience may have made them think that it was not as infectious. Oh well, theirs (their actions) is history. Now it is ours to make.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
nobile:(b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 4:52 PM, Carter Mecher cmecher@charter.net >wrote:

And an article that Nathaniel shared that suggests that what happened in Wuhan was mitigated (get your head around that). If that was mitigated, think of what an unmitigated outbreak might look like.

https://protect2.fireeye.com/url?k=700954cd-2c5d4db1-700965f2-0cc47adc5fa2-286c91bd092e46ea&u=https://www.worldpop.org/resources/docs/COVID_NPI/WorldPop_COV_ ID-19_outbreak.pdf

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:50 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Resending Richard's note below and links to articles (we don't need to get fancy, we need to do what works):

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:43 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

(b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;
Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

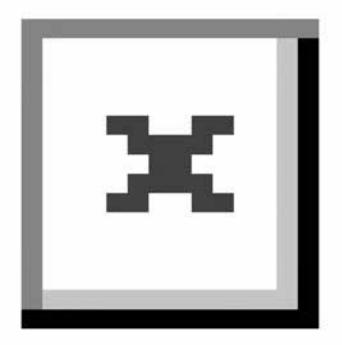
(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;
david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Pasted Washington guidance below. This will not reduce community transmission (not enough). Protective sequestration.



Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 4:09 PM

To: Carter Mecher

Ce: Tracey Mel	Namara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Box	ssert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;
(b)(6)	Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally
(OS/ASPR/SPP	R); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;
Alexander; MA	RIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary
(OS/ASPR/BAI	RDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph
(OS/ASPR/IO);	Luciana; Dan; Eric (San Diego County); David; DAVID A;
david.gruber@d	shs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH	; tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@h	ns.gov
Cubine Dr. D	of Down Bising Store Est. 20
Subject: RE: R	ed Dawn Rising Start Feb 29

What if the players get sick (with covid-19)? So that would become a big scandals on government's decision.

I think it is better for us (in the US) to think that it is a new infectious disease and we don't have any cure nor MCM nor much kmowledge. Let's be cautious and nail it early by putting in precautionary NPI and various steps so that we feel good about being a step ahead of the virus, instead of chasing after it as in Italy, S. Korea. It is again a good time to test how well we can rally business to do the same. I don't see how the government leaders have anything to lose to put in the appropriate measures now.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 2:57 PM, Carter Mecher < cmecher@charter.net > wrote:
Look at the desperation in Italy.

Italian government orders all sporting events to take place without fans until April 3 due to coronavirus

Italy is considering to put more towns in northern Italy on lockdown due to coronavirus

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:36 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

(b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;
Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

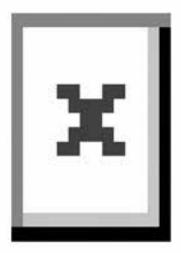
(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;
david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.



Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

[b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally
(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;

David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

(b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;

Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;

david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the I case in Santa Clara on Jan 31 is real. It's one — and as we can see in the model — one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. if not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: √(b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 7:44 AM, Carter Mecher <cmecher@charter.net>wrote</cmecher@charter.net>

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; David; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM

Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

Police would "concentrate on responding to serious crimes" if they lose a

"significant" amount of staff to illness

2. UK has stockpiles of medicines for the NHS, along with protective

clothing and equipment for medical staff

3. If coronavirus becomes widespread, there will be a focus on essential

services for those "most at risk"

The Ministry of Defence will provide support as needed

There will be increased government communication with parliament, the

public and the media

Social distancing strategies could be implemented, which would include

school closures, home-working, and reducing the number of large scale

gatherings

Non-urgent operations and procedures could be cancelled and hospital

discharges monitored to free up beds

Measures would come into place to help businesses with short-term cash

flow problems

9. A distribution strategy for sending out key medicines and equipment to

NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert

(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david,gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

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A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently are monitoring 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
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A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

-

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett <richard.hatchett@cepi.net>; Tracev McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee <(b)(6) Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) : MELISSA : Lisa Koonin (b)(6) <melissa,harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan,Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@kv.gov>; Uerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evaleegatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI); and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; [b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara < tmcNamara@westernu.edu>; Dr. Eva Lee < eva.evalee.lee64@gmail.com>

Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov>; M.D.

<<u>MVCALLAHAN@mgh.harvard.edu</u>>; James V <<u>james.lawler@unmc.edu</u>>; Duane <<u>duane.caneva@hq.dhs.gov</u>>; David <<u>DMarcozzi@som.umaryland.edu</u>>; Tom Bossert <<u>tom.bossert@me.com</u>>; Charity A@CDPH <<u>Charity.Dean@cdph.ca.gov</u>>; Ralph S

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<rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J
<MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON
<cameron.hamilton@hq.dhs.gov>; (b)(6)
                                                Daniel (OS/ASPR/SPPR)
<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally
(OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                             : Lisa Koonin (b)(6)
                                                               >: MELISSA
(b)(6)
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>: Ryan Morhard <Ryan.Morhard@weforum.org>: Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
```

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6)

OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric

(San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of: Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher < cmecher@charter.net >
Sent: Monday, March 02, 2020 11:45 AM
To: Dr. Eva Lee (h)/61 ; Tracey McNamara (mcNamara@westernu.edu>
Ce: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D.</thomas.wilkinson@hq.dhs.gov>
<mvcallahan@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu></mvcallahan@mgh.harvard.edu>
duane.caneva@hq.dhs.gov>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>
<tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S</tom.bossert@me.com>
<rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J</richard.hatchett@cepi.net></rbaric@email.unc.edu>
<martingj@state.gov>; William <walterswa2@state.gov>; CAMERON</walterswa2@state.gov></martingj@state.gov>
<ameron.hamilton@hq.dhs.gov>; (b)(6) Daniel (OS/ASPR/SPPR)</ameron.hamilton@hq.dhs.gov>
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov>
(OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>
(b)(6) >; Lisa Koonin (b)(6) >; MELISSA
<melissa.harvey@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</mariefred.evans@associates.hq.dhs.gov></alexander.eastman@hq.dhs.gov>
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John</kevin.yeskey@hhs.gov>
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
< <u>David.Hassell@hhs.gov</u> >; Joseph (OS/ASPR/IO) < <u>Joseph.Hamel@hhs.gov</u> >; Luciana
< <u>LBorio@iqt.org</u> >; Dan < <u>DHanfling@iqt.org</u> >; Eric (San Diego County)
< Eric.McDonald@sdcounty.ca.gov >; David < david.wade@hq.dhs.gov >; DAVID A
<a href="mailto: david.gruber@dshs.texas.gov ; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan,morhard@weforum.org>; Steven Jt(tCHFStDPH</ryan,morhard@weforum.org></padgetlg@state.gov>
) < <u>steven.stack@ky.gov</u> >; tJerome (HHS/OASH) < <u>Jerome.Adams@hhs.gov</u> >; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;</michelle.colby@usda.gov></jessica.fantinato@usda.gov>
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee- gatech@pm.me></evalee- </dshiau@cghe.org>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (D) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Le	e √(b)(6)	>wrote:
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Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=a7a4cc1a-fbf0d566-a7a4fd25-0cc47adc5fa2-3b82530c16cff920&u=https://www.linkedin.com/posts/activity-

6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (h)(6)

Sent: Monday, March 2, 2020 7:45:51 AM

To: THOMAS < THOMAS, WILKINSON@hq.dhs.gov >; M.D. < MVCALLAHAN@mgh.harvard.edu >; Tracey McNamara

<tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>;

```
Duane <duane.caneva@hq.dhs.gov>; David
<DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH
<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard
Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>;
William <WaltersWA2@state.gov>; CAMERON
<cameron.hamilton@hq.dhs.gov>; (b)(6)
                  >; Daniel (OS/ASPR/SPPR)
</h
<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR)
<Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
1/h1/61
                              : Lisa Koonin
VhV/61
                    : MELISSA <melissa.harvev@hq.dhs.gov>;
HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hg.dhs.gov>; jwleduc@utmb.edu
<iwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)
<Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary
(OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO)
<Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan
<DHanfling@iqt.org>; Eric (San Diego County)
< Eric.McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>;
DAVID A <david.a.tarantino@cbp.dhs.gov>;
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott
<Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard
<Rvan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@kv.gov>: tJerome (HHS/OASH)
<Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu
<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee
                           ; Carter Mecher <cmecher@charter.net>
(b)(6)
Subject: RE: Red Dawn Rising Start Feb 29
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We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

https://newton.is	ve gatech edu/T	hel on
nups.//newton.is	ye.gatecii.edu/L	ALCC
mobile: (b)(6)	7	

Sender: Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306878740A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <Rick.Bright@hhs.gov>

Sent Date: 2020/03/04 18:20:49

Delivered Date: 2020/03/04 18:20:51

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:19:58
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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Daniel (OS/ASPR/SPPR) < Daniel Dodgen	@HHS.GOV>; DeBord, Kristin (OS/ASPF	(/SPPR)
<kristin.debord@hhs.gov>; Phillips, Sall-</kristin.debord@hhs.gov>	y (OS/ASPR/SPPR) <sally.phillips@hhs.j< th=""><th>gov>; Matthew J CIV</th></sally.phillips@hhs.j<>	gov>; Matthew J CIV
USARMY (USA) √KV/€\	; Lisa Koonin <(b)(6)	; MELISSA
<melissa.harvey@hq.dhs.gov>; Wolfe, H</melissa.harvey@hq.dhs.gov>	erbert (DHS.GOV) <herbert.wolfe@hq< td=""><td>.dhs.gov>;</td></herbert.wolfe@hq<>	.dhs.gov>;
alexander.eastman@hq.dhs.gov; MARIE	FRED <mariefred.evans@associates.hc< td=""><td>q.dhs.gov>;</td></mariefred.evans@associates.hc<>	q.dhs.gov>;
jwleduc@utmb.edu; Johnson, Robert (O	S/ASPR/BARDA) < Robert. Johnson@hh	s.gov>; Yeskey, Kevin
(OS/ASPR/IO) <kevin.yeskey@hhs.gov>;</kevin.yeskey@hhs.gov>	Disbrow, Gary (OS/ASPR/BARDA) < Gar	ry.Disbrow@hhs.gov>;
Redd, John (OS/ASPR/SPPR) < John. Redd	@hhs.gov>; Hassell, David (Chris) (OS/	ASPR/IO)
<david.hassell@hhs.gov>; Hamel, Josep</david.hassell@hhs.gov>	h (OS/ASPR/IO) <joseph.hamel@hhs.g< td=""><td>ov>; Luciana</td></joseph.hamel@hhs.g<>	ov>; Luciana
<lborio@iqt.org>; Dan <dhanfling@iqt.< p=""></dhanfling@iqt.<></lborio@iqt.org>	org>; eric.mcdonald@sdcounty.ca.gov	; David
<david.wade@hq.dhs.gov>; david.a.tara</david.wade@hq.dhs.gov>	ntino@cbp.dhs.gov; david.gruber@dsl	hs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Lee, S</sangeeta.kaushik@hq.dhs.gov>	cott (OS/ASPR/EMMO) <scott.lee@hh< td=""><td>s.gov>; Larry G</td></scott.lee@hh<>	s.gov>; Larry G
<padgetlg@state.gov>; Ryan Morhard -</padgetlg@state.gov>	:Ryan.Morhard@weforum.org>; Steve	n Jt(tCHFStDPH)
<steven.stack@ky.gov>; Adams, Jerome</steven.stack@ky.gov>	(HHS/OASH) < Jerome. Adams@hhs.go	v>; Fantinato, Jessica
(USDA.GOV) < jessica.fantinato@usda.go	v>; DC <michelle.colby@usda.gov>; da</michelle.colby@usda.gov>	nny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; Hunt,</dshiau@cghe.org>	Richard (OS/ASPR/EMMO) < Richard. H	unt@hhs.gov>
Subject: Re: Red Dawn Rising Start Feb 2	9	and Part Indepen

It is remarkable that leaders are reluctant to implement interventions that they will have to implement anyway when they lose control. Do they think the virus is magically going to behave differently when it gets to their community? Why can't they look at the successful examples and emulate these?

Sent from my iPhone

On 4 Mar 2020, at 20:31, Carter Mecher < cmecher@charter.net > wrote:

Rhetorical question, what is he evaluating daily?

SEATTLE -- Washington state on Wednesday reported a 10th death from coronavirus as Gov. Jay Inslee said he was evaluating daily whether to order widespread closures and cancellations due to the outbreak.

The state Department of Health released updated figures showing that nine people had died in King County, the state's most populous, and one in Snohomish County. The state has now reported 39 COVID-19 cases, all in the greater Seattle area.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:57 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

Daniel

(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);

Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Look at the desperation in Italy.

Italian government orders all sporting events to take place without fans until April 3 due to coronavirus Italy is considering to put more towns in northern Italy on lockdown due to coronavirus

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:36 PM

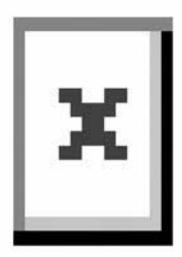
To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; [hv6] Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.



Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; https://doi.org/10.1001/pd.1005/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly

what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from	n Mail	for V	Vindo	ws 10
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From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);
Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);
Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home — they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. If not more weeks. The moment the first case appears, we're late already by 2 weeks.

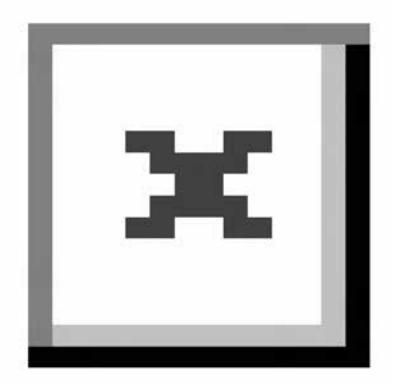
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https://newton.isy	e.gatech.edu/DrLee/
mobile: (b)(6)	

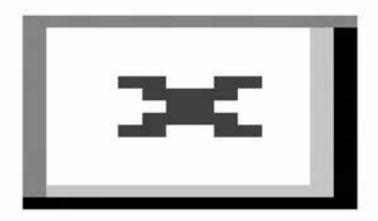
Sent with ProtonMail Secure Email.

----- Original Message ------

On Wednesday, March 4, 2020 7:44 AM, Carter Mecher <cmecher@charter.net>wrote:

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.





Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; JANIEN Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/ South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; riglassir@gmail.com; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Userome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; hy6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff

- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Liva Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; [h)/6] Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Live S; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for

the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (b)(6) Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; VbV6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) ; Lisa Koonin < (b)(6) <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) < Jerome.Adams@hhs.gov>; DC < jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and all-of-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- 5. Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON (Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; [wleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee ﴿h\/6\

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V

<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David

<DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH

<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; riglassjr@gmail.com; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Lierome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of: Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- 3. Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net></cmecher@charter.net>	
Sent: Monday, March 02, 2020 11:45 AM	
To: Dr. Eva Lee >; Tracey McNamara <	westernu.edu>
Cc: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.ha	arvard.edu>; James V
<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>	
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charit</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>	y A@CDPH
<charity.dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett</rbaric@email.unc.edu></charity.dean@cdph.ca.gov>	
<ri>crichard.hatchett@cepi.net>; Gregory J < MartinGJ@state.gov>; William < Walters</ri>	WA2@state.gov>;
CAMERON <cameron.hamilton@hq.dhs.gov>; \h\(6\) Daniel (OS/AS</cameron.hamilton@hq.dhs.gov>	SPR/SPPR)
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; S</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov>	ally (OS/ASPR/SPPR)
<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA) </sally.phillips@hhs.gov>	; Lisa Koonin
(b)(6) }; MELISSA < melissa.harvey@hq.dhs.gov>; HERBERT	
<herbert.wolfe@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; Mexander.eastman@hq.dhs.gov>; Mexander.eastman@hq.dhs.go</alexander.eastman@hq.dhs.gov></herbert.wolfe@hq.dhs.gov>	MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPF</mariefred.evans@associates.hq.dhs.gov>	R/BARDA)
<robert.johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BAR</kevin.yeskey@hhs.gov></robert.johnson@hhs.gov>	DA)
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (O</john.redd@hhs.gov></gary.disbrow@hhs.gov>	hris) (OS/ASPR/IO)
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Lucia</joseph.hamel@hhs.gov></david.hassell@hhs.gov>	na < <u>LBorio@iqt.org</u> >;
Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcounty.ca.	gov>; David
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gru</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov>	ber@dshs.texas.gov;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>	
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven J</ryan.morhard@weforum.org></padgetlg@state.gov>	t(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>	
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usu</michelle.colby@usda.gov></jessica.fantinato@usda.gov>	hs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.m< td=""><td><u>e</u>></td></evalee-gatech@pm.m<></dshiau@cghe.org>	<u>e</u> >
Subject: RE: Red Dawn Rising Start Feb 29	

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; [Nave]; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) >wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=5ff558aa-03a141d6-5ff56995-0cc47adc5fa2-

68c34ef17a221a2d&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (b)(6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) ; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (h)/6) : Lisa Koonin ; MELISSA <melissa.harvey@hq.dhs.gov>; (b)(6) HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>: Eric (San Diego County)

<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>;

DAVID A <david.a.tarantino@cbp.dhs.gov>;</david.a.tarantino@cbp.dhs.gov>
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;</david.gruber@dshs.texas.gov>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott</sangeeta.kaushik@hq.dhs.gov>
<scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan Morhard</padgetlg@state.gov></scott.lee@hhs.gov>
<ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org>
<steven.stack@ky.gov>; tJerome (HHS/OASH)</steven.stack@ky.gov>
<jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu</michelle.colby@usda.gov>
<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></danny.shiau@usuhs.edu>
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov>
>; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!
evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/

(h)(6)

	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
der:	(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

Sende <Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

Recipient: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/04 18:19:57

Delivered Date: 2020/03/04 18:19:58

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:08:06
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Carter Meche	er <cmecher@charter.net></cmecher@charter.net>
Sent: Tuesday, Mar	ch 3, 2020 2:42 PM
To: Tracey McNama	ra <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
Eva Lee √h)/6)	
Cc: THOMAS < THOM	MAS.WILKINSON@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu>
<james.lawler@unr< td=""><td>nc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></td></james.lawler@unr<>	nc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
<dmarcozzi@som.u< td=""><td>maryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></td></dmarcozzi@som.u<>	maryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
<charity.dean@cdp< td=""><td>h.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu></td></charity.dean@cdp<>	h.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu>
Walters, William (S)	[ATE.GOV] <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
(b)(6)	Dodgen, Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@HHS.GOV >; DeBord, Kristin

(OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Phillip	s, Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>;</sally.phillips@hhs.gov>
Matthew J CIV USARMY (USA) (b)(6)	; Lisa Koonin (b)(6)
MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, He</melissa.harvey@hq.dhs.gov>	[2] [2] 전시 [2] 전시 [2] [2] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4
alexander.eastman@hq.dhs.gov; MARIEFRED <mai< td=""><td>, [</td></mai<>	, [
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(OS/ASPR/IO) <kevin.yeskey@hhs.gov>; Disbrow, O</kevin.yeskey@hhs.gov>	Gary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>;</gary.disbrow@hhs.gov>
Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov	; Hassell, David (Chris) (OS/ASPR/IO)
<david.hassell@hhs.gov>; Hamel, Joseph (OS/ASPI</david.hassell@hhs.gov>	R/IO) <joseph.hamel@hhs.gov>; Luciana</joseph.hamel@hhs.gov>
<lborio@iqt.org>; Dan <dhanfling@iqt.org>; eric.r</dhanfling@iqt.org></lborio@iqt.org>	ncdonald@sdcounty.ca.gov; David
<david.wade@hq.dhs.gov>; david.a.tarantino@cbp</david.wade@hq.dhs.gov>	o.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/AS</sangeeta.kaushik@hq.dhs.gov>	SPR/EMMO) <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.mor< td=""><td>hard@weforum.org>; Steven Jt(tCHFStDPH)</td></ryan.mor<></padgetlg@state.gov>	hard@weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; Adams, Jerome (HHS/OAS</steven.stack@ky.gov>	H) <jerome.adams@hhs.gov>; Fantinato, Jessica</jerome.adams@hhs.gov>
(USDA.GOV) < jessica.fantinato@usda.gov>; DC < m	ichelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; Hunt, Richard (O</dshiau@cghe.org>	S/ASPR/EMMO) <richard.hunt@hhs.gov>; Dr. Eva K</richard.hunt@hhs.gov>
Lee <evalee-gatech@pm.me></evalee-gatech@pm.me>	entre protesta se de osa utario telonici. Esperio del 1900 de 17-190 de 17-190 de 190

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; [h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount
 of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- 5. There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- 8. Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; David (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven. The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (No.) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=lwAR1mBA6yW0sR kebFJsGbGlwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net>

Sent: Tuesday, March 03, 2020 2:27 AM

To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr.

Eva Lee (b)(6) >

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David

<DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH

<<u>Charity.Dean@cdph.ca.gov</u>>; Ralph S <<u>rbaric@email.unc.edu</u>>; Gregory J <<u>MartinGJ@state.gov</u>>;

William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (h)(6)

Daniel (OS/ASPR/SPI	PR) < Daniel. Dodgen@hhs.gov >; Kristin (OS/ASPR/SPPR) < Kristin. DeBord@hhs.gov >
Sally (OS/ASPR/SPPR) < <u>Sally.Phillips@hhs.gov</u> >; Matthew J CIV USARMY (USA)
	>; Lisa Koonin 4/h)/6\>; MELISSA
<melissa.harvey@ho< td=""><td>.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></td></melissa.harvey@ho<>	.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov>
<alexander.eastman< td=""><td>@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</mariefred.evans@associates.hq.dhs.gov></td></alexander.eastman<>	@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</mariefred.evans@associates.hq.dhs.gov>
jwleduc@utmb.edu;	Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.< td=""><td>gov>; Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)</td></kevin.yeskey@hhs.<>	gov>; Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<john.redd@hhs.go< td=""><td>v>; David (Chris) (OS/ASPR/IO) < David. Hassell@hhs.gov >; Joseph (OS/ASPR/IO)</td></john.redd@hhs.go<>	v>; David (Chris) (OS/ASPR/IO) < David. Hassell@hhs.gov >; Joseph (OS/ASPR/IO)
<joseph.hamel@hh:< td=""><td>s.gov>; Luciana <lborio@iqt.org>; Dan <dhanfling@iqt.org>; Eric (San Diego</dhanfling@iqt.org></lborio@iqt.org></td></joseph.hamel@hh:<>	s.gov>; Luciana <lborio@iqt.org>; Dan <dhanfling@iqt.org>; Eric (San Diego</dhanfling@iqt.org></lborio@iqt.org>
County) < Eric. McDo	nald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov>
<david.a.tarantino@< td=""><td>cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA</td></david.a.tarantino@<>	cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@< td=""><td>hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan</padgetlg@state.gov></scott.lee@hhs.gov></td></sangeeta.kaushik@<>	hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan</padgetlg@state.gov></scott.lee@hhs.gov>
Morhard <ryan.mor< td=""><td>hard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov></td></ryan.mor<>	hard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov>
(HHS/OASH) < Jerom	e.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov>
<michelle.colby@us< td=""><td>da.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></td></michelle.colby@us<>	da.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org>
richard.hunt@hhs.g	ov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me>
Subject: PE: Ped Day	un Ricing Start Enh 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

From: Richard Hatchett Sent: Tuesday, March 3, 2020 4:00 AM To: Carter Mecher; Tracey McNamara; Dr. Eva Lee Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); CAMERON: (b)(6) Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee Subject: RE: Red Dawn Rising Start Feb 29 Critically important article on how China succeeded in suppressing transmission https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries The referenced report is at https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf Need to figure out - VERY quickly - how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die. From: Carter Mecher <cmecher@charter.net> Sent: 03 March 2020 03:59 To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee 4/h)/6) Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;/h)/6\ Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) <(b)(6) ; Lisa Koonin ; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT

<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David

<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)

<HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)

<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;

SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G

<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)

<steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<<u>iessica.fantinato@usda.gov</u>>; DC <<u>michelle.colby@usda.gov</u>>; <u>danny.shiau@usuhs.edu</u>; Danny Shiau

<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Dr. Eva K Lee
Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- viral load in asymptomatic same as symptomatic
- Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher < <u>cmecher@charter.net</u> > Sent: Monday, March 02, 2020 11:45 AM
To: Dr. Eva Lee (b)(6) ; Tracey McNamara <tmcnamara@westernu.edu></tmcnamara@westernu.edu>
Cc: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>
<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>
< <u>DMarcozzi@som.umaryland.edu</u> >; Tom Bossert < <u>tom.bossert@me.com</u> >; Charity A@CDPH
< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@email.unc.edu</u> >; Richard Hatchett
< <u>richard.hatchett@cepi.net</u> >; Gregory J < <u>MartinGJ@state.gov</u> >; William < <u>WaltersWA2@state.gov</u> >;
CAMERON < cameron.hamilton@hq.dhs.gov>; [LLVE] Daniel (OS/ASPR/SPPR)
< <u>Daniel.Dodgen@hhs.gov</u> >; Kristin (OS/ASPR/SPPR) < <u>Kristin.DeBord@hhs.gov</u> >; Sally (OS/ASPR/SPPR)
< <u>Sally.Phillips@hhs.gov</u> >; Matthew J CIV USARMY (USA) (b)(6) ; Lisa Koonin
√b)(6) →; MELISSA < melissa.harvey@hq.dhs.gov >; HERBERT → melissa.harvey@hq.d
< <u>HERBERT.WOLFE@hq.dhs.gov</u> >; Alexander < <u>alexander.eastman@hq.dhs.gov</u> >; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)</mariefred.evans@associates.hq.dhs.gov>
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></robert_johnson@hhs.gov>
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov></gary.disbrow@hhs.gov>
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></joseph.hamel@hhs.gov></david.hassell@hhs.gov>
Dan <dhanfling@iqt.org>; Eric (San Diego County) <eric.mcdonald@sdcounty.ca.gov>; David</eric.mcdonald@sdcounty.ca.gov></dhanfling@iqt.org>
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org></padgetlg@state.gov>
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau</michelle.colby@usda.gov></jessica.fantinato@usda.gov>
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me></dshiau@cghe.org>
Subject: RE: Red Dawn Rising Start Feb 29
Subject. No. New Dawn histing Statt Feb 25

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities — those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote:

https://protect2.fireeye.com/url?k=7dbc876b-21e89e17-7dbcb654-0cc47adc5fa2-5c80a56dd1479f36&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

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From: Dr. Eva Lee //bi//6\	
Sent: Monday, March 2, 2020 7:45:51 AM	
To: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D.	
<mvcallahan@mgh.harvard.edu>; Tracey McNamara <tmcnamara@westernu.edu></tmcnamara@westernu.edu></mvcallahan@mgh.harvard.edu>	>;
James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>	
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>	
A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S < rbaric@email.unc.edu>; Richard	
Hatchett <richard.hatchett@cepi.net>; Gregory J <martingj@state.gov>; William</martingj@state.gov></richard.hatchett@cepi.net>	
<walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>	
riglassir@gmail.com & >; Daniel (OS/ASPR/SPPR)	
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov>	
(OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>	
₹ЫУБ\ ; Lisa Koonin ₹ЫУБ\ ; MELISSA	
<melissa.harvey@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>	
<alexander.eastman@hq.dhs.gov>; MARIEFRED</alexander.eastman@hq.dhs.gov>	
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu< td=""><td>*;</td></jwleduc@utmb.edu<></mariefred.evans@associates.hq.dhs.gov>	*;
Robert (OS/ASPR/BARDA) < Robert. Johnson@hhs.gov >; Kevin < kevin.yeskey@hhs.gov	>;
Gary (OS/ASPR/BARDA) < Gary. Disbrow@hhs.gov>; John (OS/ASPR/SPPR)	
<john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <david.hassell@hhs.gov>; Joseph</david.hassell@hhs.gov></john.redd@hhs.gov>	
(OS/ASPR/IO) < Joseph. Hamel@hhs.gov>; Luciana < LBorio@iqt.org>; Dan	
<dhanfling@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcounty.ca.gov>; Day</dhanfling@iqt.org>	vid
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>;</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov>	
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA</david.gruber@dshs.texas.gov>	
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>	
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven</ryan.morhard@weforum.org></padgetlg@state.gov>	
Jt(tCHFStDPH) < steven.stack@ky.gov>; tJerome (HHS/OASH) < Jerome.Adams@hhs.go)V>
DC < jessica.fantinato@usda.gov >; DC < michelle.colby@usda.gov >;	
danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org></dshiau@cghe.org></danny.shiau@usuhs.edu>	8
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee ⟨к\/к\</richard.hunt@hhs.gov>	\supset
Carter Mecher < cmecher@charter.net >	

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me https://newton.isye.gatech.edu/DrLee/

Subject: RE: Red Dawn Rising Start Feb 29

mobile: (b)(6) (b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

Recipient: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/03 21:08:04

Delivered Date: 2020/03/03 21:08:06

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:18:45
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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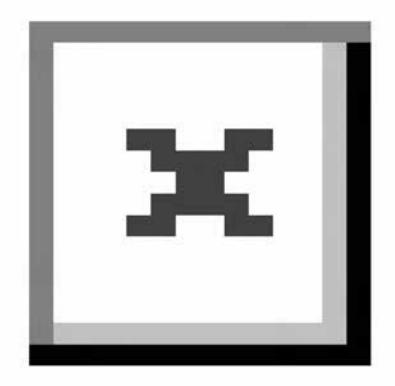
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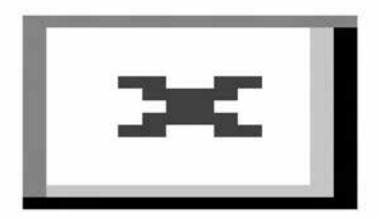
From: Richard Hatchett <richard.hatchett@cepi.net>
Sent: Wednesday, March 4, 2020 7:52 AM
To: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee <(b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6)
Dodgen, Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Phillip</kristin.debord@hhs.gov>	s, Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>;</sally.phillips@hhs.gov>			
Matthew J CIV USARMY (USA) ₹/6\/6\	; Lisa Koonin <(b)(6)			
MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; wleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <robert.johnson@hhs.gov>; Yeskey, Kevin</robert.johnson@hhs.gov></mariefred.evans@associates.hq.dhs.gov></herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>				
			(OS/ASPR/IO) <kevin.yeskey@hhs.gov>; Disbrow, G</kevin.yeskey@hhs.gov>	Sary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>;</gary.disbrow@hhs.gov>
			dd, John (OS/ASPR/SPPR) <john.redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) Pavid.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana Borio@igt.org>; Dan <dhanfling@igt.org>; eric.mcdonald@sdcounty.ca.gov; David</dhanfling@igt.org></joseph.hamel@hhs.gov></john.redd@hhs.gov>	
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<sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/AS</sangeeta.kaushik@hq.dhs.gov>	PR/EMMO) <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>			
<padgetlg@state.gov>; Ryan Morhard <ryan.morh< th=""><th>nard@weforum.org>; Steven Jt(tCHFStDPH)</th></ryan.morh<></padgetlg@state.gov>	nard@weforum.org>; Steven Jt(tCHFStDPH)			
<steven.stack@ky.gov>; Adams, Jerome (HHS/OASI</steven.stack@ky.gov>	H) <jerome.adams@hhs.gov>; Fantinato, Jessica</jerome.adams@hhs.gov>			
(USDA.GOV) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <richard.hunt@hhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29 Seattle or Singapore?</evalee-gatech@pm.me></richard.hunt@hhs.gov></dshiau@cghe.org></michelle.colby@usda.gov></jessica.fantinato@usda.gov>				
		From: Carter Mecher < cmecher@charter.net>		
		Sent: 04 March 2020 12:44		
		To: Tracey McNamara < tmcNamara@westernu.edu	i>; Richard Hatchett < <u>richard.hatchett@cepi.net</u> >; Dr.	
		Eva Lee 4/h1/61 >		
Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov >;	M.D. < MVCALLAHAN@mgh.harvard.edu>; James V			
<james.lawler@unmc.edu>; Duane <duane.caneva< td=""><td>@hq.dhs.gov>; David</td></duane.caneva<></james.lawler@unmc.edu>	@hq.dhs.gov>; David			
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< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@em</u>	ail.unc.edu>; Gregory J < MartinGJ@state.gov>;			
William < WaltersWA2@state.gov >; CAMERON < car	neron.hamilton@hq.dhs.gov>; /LVE\			
Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@hhs.gov>	; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>;			
Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Ma</sally.phillips@hhs.gov>	tthew J CIV USARMY (USA)			
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<melissa.harvey@hq.dhs.gov>; HERBERT <herbert< td=""><td>f.WOLFE@hq.dhs.gov>; Alexander</td></herbert<></melissa.harvey@hq.dhs.gov>	f.WOLFE@hq.dhs.gov>; Alexander			
<alexander.eastman@hq.dhs.gov>; MARIEFRED <m< td=""><td>ariefred.evans@associates.hq.dhs.gov>;</td></m<></alexander.eastman@hq.dhs.gov>	ariefred.evans@associates.hq.dhs.gov>;			
<pre>jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Ro</pre>	bert.Johnson@hhs.gov>; Kevin			
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <</kevin.yeskey@hhs.gov>	Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)			
<john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov>	< <u>David.Hassell@hhs.gov</u> >; Joseph (OS/ASPR/IO)			
<joseph.hamel@hhs.gov>; Luciana <lborio@iqt.or< p=""></lborio@iqt.or<></joseph.hamel@hhs.gov>	g>; Dan < <u>DHanfling@iqt.org</u> >; Eric (San Diego			
County) < Eric.McDonald@sdcounty.ca.gov>; David	<david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov>			
<david.a.tarantino@cbp.dhs.gov>; david.gruber@d</david.a.tarantino@cbp.dhs.gov>	shs.texas.gov; SANGEETA			
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@< td=""><td>hhs.gov>; Larry G < PadgetLG@state.gov>; Ryan</td></scott.lee@<></sangeeta.kaushik@hq.dhs.gov>	hhs.gov>; Larry G < PadgetLG@state.gov>; Ryan			
Morhard <ryan.morhard@weforum.org>; Steven J</ryan.morhard@weforum.org>	t(tCHFStDPH) < steven.stack@ky.gov>; tJerome			
(HHS/OASH) < Jerome.Adams@hhs.gov >; DC < jessic	a.fantinato@usda.gov>; DC			
<michelle.colby@usda.gov>; danny.shiau@usuhs.e</michelle.colby@usda.gov>	du; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org>			

richard.hunt@hhs.gov; Dr. Eva K Lee <<u>evalee-gatech@pm.me</u>> **Subject:** RE: Red Dawn Rising Start Feb 29

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.





Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Live Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-ascases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's secondlargest city, the total climbed to 90.

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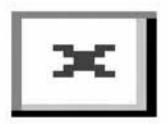
From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?



Image

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From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

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Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR);

David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

ree

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; hv6\ ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR);

Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED;

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR);
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A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH);
Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount
 of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- 5. There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- 8. Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

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From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Liva S; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

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From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community." But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

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From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (David) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=lwAR1mBA6yW0sR kebFJsGbGlwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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From: Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Sent: Tuesday, March 03, 2020 2:27 AM
To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcnamara@westernu.edu>; I</tmcnamara@westernu.edu></richard.hatchett@cepi.net>
Eva Lee 4(b)(6)
Cc: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>
<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>
<charity.dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu></charity.dean@cdph.ca.gov>
William <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; /h\/6\</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
Daniel (OS/ASPR/SPPR) < Daniel Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin DeBord@hhs.gov>
Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>
(b)(e) ; Lisa Koonin (b)(e) ; MELISSA
<melissa.harvey@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</mariefred.evans@associates.hq.dhs.gov></alexander.eastman@hq.dhs.gov>
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <robert.johnson@hhs.gov>; Kevin</robert.johnson@hhs.gov>
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR)</gary.disbrow@hhs.gov></kevin.yeskey@hhs.gov>
<john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <david.hassell@hhs.gov>; Joseph (OS/ASPR/IO)</david.hassell@hhs.gov></john.redd@hhs.gov>
< <u>Joseph.Hamel@hhs.gov</u> >; Luciana < <u>LBorio@iqt.org</u> >; Dan < <u>DHanfling@iqt.org</u> >; Eric (San Diego
County) < Eric.McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA</david.a.tarantino@cbp.dhs.gov>
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan</padgetlg@state.gov></scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov></ryan.morhard@weforum.org>
(HHS/OASH) <jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></michelle.colby@usda.gov>
richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me>
Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper

- respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI); and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (Live) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher < cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee <(b)(6)

Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.edu>; James V

<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David

<DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH

<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett

<ri>crichard.hatchett@cepi.net>; Gregory J < MartinGJ@state.gov>; William < WaltersWA2@state.gov>;</ri>

CAMERON < cameron.hamilton@hq.dhs.gov> (b)(6)	Daniel (OS/ASPR/SPPR)
<pre><daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <krist< pre=""></krist<></daniel.dodgen@hhs.gov></pre>	tin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA) <</sally.phillips@hhs.gov>	(b)(6) >; Lisa Koonir
(h)(6) ; MELISSA <melissa.harvey@hq.dh< td=""><td>ns.gov>; HERBERT</td></melissa.harvey@hq.dh<>	ns.gov>; HERBERT
< HERBERT.WOLFE@hq.dhs.gov >; Alexander < alexander.ea	astman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utm</mariefred.evans@associates.hq.dhs.gov>	nb.edu; Robert (OS/ASPR/BARDA)
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.go< td=""><td>ov>; Gary (OS/ASPR/BARDA)</td></kevin.yeskey@hhs.go<></robert_johnson@hhs.gov>	ov>; Gary (OS/ASPR/BARDA)
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.re< td=""><td>edd@hhs.gov>; David (Chris) (OS/ASPR/IO)</td></john.re<></gary.disbrow@hhs.gov>	edd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.h< td=""><td>Hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></td></joseph.h<></david.hassell@hhs.gov>	Hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org>
Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.N	AcDonald@sdcounty.ca.gov>; David
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@< td=""><td>cbp.dhs.gov>; david.gruber@dshs.texas.gov;</td></david.a.tarantino@<></david.wade@hq.dhs.gov>	cbp.dhs.gov>; david.gruber@dshs.texas.gov;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.< td=""><td>.Lee@hhs.gov>; Larry G</td></scott.<></sangeeta.kaushik@hq.dhs.gov>	.Lee@hhs.gov>; Larry G
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@< td=""><td>weforum.org>; Steven Jt(tCHFStDPH)</td></ryan.morhard@<></padgetlg@state.gov>	weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.ac< td=""><td>dams@hhs.gov>; DC</td></jerome.ac<></steven.stack@ky.gov>	dams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.< td=""><td>gov>; danny.shiau@usuhs.edu; Danny Shiau</td></michelle.colby@usda.<></jessica.fantinato@usda.gov>	gov>; danny.shiau@usuhs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee</dshiau@cghe.org>	<evalee-gatech@pm.me></evalee-gatech@pm.me>
Subject: RE: Red Dawn Rising Start Feb 29	

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (A) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Lerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine

Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee (LLVC) >; Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <<u>Charity.Dean@cdph.ca.gov</u>>; Ralph S <<u>rbaric@email.unc.edu</u>>; Richard Hatchett <ri>crichard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>;</ri> CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) √(b)(6) ; Lisa Koonin ; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <<u>DHanfling@iqt.org</u>>; Eric (San Diego County) <<u>Eric.McDonald@sdcounty.ca.gov</u>>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Lierome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (h)(6) wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara < tmcNamara@westernu.edu>wrote: https://protect2.fireeye.com/url?k=1b29b264-477cbb77-1b29835b-0cc47adb5650-

7a94c0d37d137e80&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

Get Outlook for Android

From: Dr. Eva Lee (h)(6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) K(b)(6) Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) <(b)(6) ; Lisa Koonin ; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu

<danny.shiau@usu< th=""><th>hs.edu>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></th></danny.shiau@usu<>	hs.edu>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org>
richard.hunt@hhs.	gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov>
(h)(6)	; Carter Mecher < cmecher@charter.net>
Subject: RE: Red D	awn Rising Start Feb 29

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me https://newton.isye.gatech.edu/DrLee/ mobile:[/h)/6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/04 18:18:44

Delivered Date: 2020/03/04 18:18:45

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:08:11
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Tuesday, March 3, 2020 3:53 PM
To: Marcozzi, David <DMarcozzi@som.umaryland.edu>
Cc: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee www.mechanisms.com/; THOMAS
<THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V
<james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV)
<walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; VhV6\()
Dodgen,

Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) ; Lisa Koonin (b)(6) : MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV)

(USDA.GOV)

<pr Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov> Subject: Re: Red Dawn Rising Start Feb 29

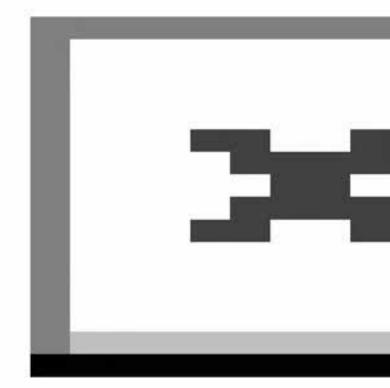
Yes, we ought to act now. Ok, I know I have been urging this for a long time. I want to cover a few items discussed here:

1. Social distancing, NPI can deter the spread

Singapore and Hong Kong prove that without any definitive treatment, and absence of any prophylactic MCM protection, closing schools, home-office business can make a huge difference. I ran a few models for school closure and business tele-work for Santa Clara, King County and I want to share some graphs here.

Santa Clara: One positive case on Jan 31. I look at closing school as of today, and tele-work by ~0.5 million workers. We can see the rapid decrease of spreading. I also contrast the results if we close a week from now, or two weeks from now.

Please note, the parameters need not be perfect. The idea is to contrast how NPI can work very effectively and we MUST act now and make it a success.



NPI strategies to contain.jpg

2. Quarantine a city?

I believe there's a contingency plan (I did recall working with National Guard on it) where we will quarantine everyone inside a city if there's a severe disease spread. It is like what China did for Wuhan. With MCM, we can give citizens MCM before they leave. There is no MCM now.

While one can argue a federal quarantine and total lock down of a city is more effective, I think Lu's comment is on-point. We cannot expect perfect participation. Everyone is going to make a decision. If we can contain 80% of the people's movement (as in Hong Kong and Singapore, or in the Santa Clara model above), you can see that we are stopping the spread. Clearly, those who get out of the city might very well be infected and sow a seed to other places. Yes, we probably need to think harder what to do. The NPI of closing schools and tele-work in a sense is volunteering quarantine. It can work beautifully, and very effectively. Note that Hong Kong has only limited transportation ban. The citizens and the healthcare workers protest to close the border, but the border wasn't closed. So the effort is volunteering quarantine of their own residents and then quarantine for everyone who enters the city. Together, it puts a brake on the spread. It is right to do it now.

3. King County Seattle

True to the form of the COVID-19 and the mortality of elderly, which is 1.3%, 3.6%, 8^ and 14.8% from 50 years owards, for every 10 year age bracket. So we see the very high mortality of the nursing home. Although I know next to nothing about what's going on in China, these figures seem to be a good guiding point for us.

What troubles me about the spread is that it is almost like by-the-book. We got school teacher get infected, nursing home, a very sick patient in ICU (healthcare workers got quarantine),.. you see where we are heading, every vulnerable population is hit.

4. Limited Transportation Ban

So last week, I wrote that we need to include New York and Atlanta in the screening. Bad enough this week we have cases in these cities. I do think we need to step up in reducing the South Korean flights into the US. Hong Kong uses brand-new public estates to quarantine the incoming travelers from high-risk regions. It is a luxury that we do not have. Here, we must figure out an effective quarantine for these entering visitors or returning citizens. Maybe it is time to stop visitors from S Korea and Italy. It is just temporary. So we can focus on handling citizens coming back. We need to let them in. Cannot leave them outside their own country.

evalee-gatech@pm.me https://newton.isve.gatech.edu/DrLee/ mobile: (b)(6)

Sent with ProtonMail Secure Email. ----- Original Message -----On Tuesday, March 3, 2020 1:56 PM, Marcozzi, David <DMarcozzi@som.umaryland.edu>wrote: Act. Now. Respectfully, David Marcozzi, MD, MHS-CL, FACEP Associate Professor Director of Population Health Department of Emergency Medicine University of Maryland School of Medicine https://em.umaryland.edu Associate Professor Department of Epidemiology and Public Health University of Maryland School of Medicine http://www.medschool.umaryland.edu/programs/disparities/ Assistant Chief Medical Officer for Acute Care

University of Maryland Medical Center

http://www.umm.edu

Deputy Medical Director

Baltimore City Fire Department

https://protect2.fireeye.com/url?k=5660def0-0a35d7e3-5660efcf-0cc47adb5650-a4b26167a6ba6432&u=https://fire.baltimorecity.gov/

Mailing Address:

6th floor, Suite 200

110 South Paca Street

Baltimore, Maryland 21201

410-328-8025 (office)

410-328-8028 (fax)

(b)(6)

dmarcozzi@em.umaryland.edu

Take time to deliberate; but when the time for action arrives, stop thinking and go in. -President Andrew Jackson

Prom: Carter Mecher cmecher@charter.net

Date: Tuesday, March 3, 2020 at 1:54 PM

To: Tracey McNamara tmcNamara@westernu.edu, Richard Hatchett

richard.hatchett@cepi.net, "Dr. Eva Lee" <a href="mailto:fb)/fb)
Cc: THOMAS tmvcallahan@mgh.harvard.edu"
munmc.edu, Duane
Caneva duane.caneva@hq.dhs.gov, David Marcozzi DMarcozzi@som.umaryland.edu, Tom Bossert tom.bossert@me.com, "Charity A@CDPH" Charity.Dean@cdph.ca.gov, Ralph S rbaric@email.unc.edu, Gregory J MartinGJ@state.gov>, William WaltersWA2@state.gov, CAMERON cameron.hamilton@hq.dhs.gov,

(b)(6)

, "Daniel (OS/ASPR/SPPR)"

```
<Daniel.Dodgen@hhs.gov>, "Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "Sally
(OS/ASPR/SPPR)" <Sally.Phillips@hhs.gov>, "matthew. hepburn"
                             >, Lisa Koonin (b)(6)
                                                                 MELISSA
<melissa.harvey@hq.dhs.gov>, HERBERT <HERBERT.WOLFE@hq.dhs.gov>, Alexander
<alexander.eastman@hq.dhs.gov>, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>,
"jwleduc@utmb.edu" <jwleduc@utmb.edu>, "Robert (OS/ASPR/BARDA)"
<Robert.Johnson@hhs.gov>, Kevin Yeskey <kevin.yeskey@hhs.gov>, "Gary
(OS/ASPR/BARDA)" <Gary.Disbrow@hhs.gov>, "John (OS/ASPR/SPPR)"
<John.Redd@hhs.gov>, "David (Chris) (OS/ASPR/IO)" <David.Hassell@hhs.gov>, "Joseph
(OS/ASPR/IO)" <Joseph.Hamel@hhs.gov>, Luciana <LBorio@iqt.org>, Dan
<DHanfling@iqt.org>, "Eric (San Diego County)" <Eric.McDonald@sdcounty.ca.gov>, David
<david.wade@hq.dhs.gov>, DAVID A <david.a.tarantino@cbp.dhs.gov>,
"david.gruber@dshs.texas.gov" <david.gruber@dshs.texas.gov>, SANGEETA
<sangeeta.kaushik@hq.dhs.gov>, Scott <Scott.Lee@hhs.gov>, Larry G <PadgetLG@state.gov>,
Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Jt(tCHFStDPH)"
<steven.stack@kv.gov>, "tJerome (HHS/OASH)" <Jerome, Adams@hhs.gov>, DC
<jessica.fantinato@usda.gov>, DC <michelle.colby@usda.gov>, "danny.shiau@usuhs.edu"
<danny.shiau@usuhs.edu>, Danny Shiau <dshiau@cghe.org>, "richard.hunt@hhs.gov"
<ri>richard.hunt@hhs.gov>, "Dr. Eva K Lee" <evalee-gatech@pm.me></ri>
Subject: RE: Red Dawn Rising Start Feb 29
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Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently are monitoring 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert

(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 03, 2020 2:27 AM
To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara
<tmcNamara@westernu.edu>; Dr. Eva Lee <br/>
(b)(6)
Ce: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William
<WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;
                 Daniel (OS/ASPR/SPPR) < Daniel Dodgen@hhs.gov>; Kristin
(OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
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                            : Lisa Koonin <(b)(6)
                                                              >: MELISSA
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov>; Kevin
<kevin.veskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov >; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@kv.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
Subject: RE: Red Dawn Rising Start Feb 29
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The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- 5. Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;

Gregory J; William; CAMERON; (David) Daniel (OS/ASPR/SPPR); Kristin

(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert

(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cm< th=""><th>echer@charter.net></th></cm<>	echer@charter.net>
Sent: 03 March 2020 03:5	9
To: Tracey McNamara <tr< th=""><th>ncNamara@westernu.edu>; Dr. Eva Lee</th></tr<>	ncNamara@westernu.edu>; Dr. Eva Lee
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Cc: THOMAS < THOMAS	S.WILKINSON@hq.dhs.gov>; M.D.
<mvcallahan@mgh.< td=""><td>harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu></td></mvcallahan@mgh.<>	harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu>
<duane.caneva@hq.dhs.go< td=""><td>vy>; David < DMarcozzi@som.umaryland.edu>; Tom Bossert</td></duane.caneva@hq.dhs.go<>	vy>; David < DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; (</tom.bossert@me.com>	Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S
	Richard Hatchett <richard.hatchett@cepi.net>; Gregory J</richard.hatchett@cepi.net>
<martingj@state.gov>; W</martingj@state.gov>	/illiam <walterswa2@state.gov>; CAMERON</walterswa2@state.gov>
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<melissa.harvey@hq.dhs.g< td=""><td>ov>; HERBERT < HERBERT, WOLFE@hq.dhs.gov>; Alexander hs.gov>; MARIEFRED < mariefred.evans@associates.hq.dhs.gov></td></melissa.harvey@hq.dhs.g<>	ov>; HERBERT < HERBERT, WOLFE@hq.dhs.gov>; Alexander hs.gov>; MARIEFRED < mariefred.evans@associates.hq.dhs.gov>

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <<u>Robert.Johnson@hhs.gov</u>>; Kevin <<u>kevin.yeskey@hhs.gov</u>>; Gary (OS/ASPR/BARDA) <<u>Gary.Disbrow@hhs.gov</u>>; John

(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)

<<u>David.Hassell@hhs.gov</u>>; Joseph (OS/ASPR/IO) <<u>Joseph.Hamel@hhs.gov</u>>; Luciana

<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)

< Eric.McDonald@sdcounty.ca.gov >; David < david.wade@hq.dhs.gov >; DAVID A

<a href="mailto: <a href="mailt

<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G

<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH

) <steven.stack@kv.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;

Danny Shiau <<u>dshiau@cghe.org</u>>; <u>richard.hunt@hhs.gov</u>; Dr. Eva K Lee <<u>evalee-gatech@pm.me</u>>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;

Richard Hatchett; Gregory J; William; CAMERON: (b)(6) ; Daniel

(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV

USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED;

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John

(OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric

(San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC;

danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- 3. · Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Sent: Monday, March 02, 2020 11:45 AM
To: Dr. Eva Lee (h)(6) >; Tracey McNamara
<tmcnamara@westernu.edu></tmcnamara@westernu.edu>
Cc: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D.
<mvcallahan@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu></mvcallahan@mgh.harvard.edu>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

Public health officials near Seattle reported the nation's first two deaths in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees

of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;

Richard Hatchett; Gregory J; William; CAMERON; Korey J; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED;

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC;

danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities — those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara < tmcNamara@westernu.edu>wrote:

https://protect2.fireeye.com/url?k=23d5f38f-7f80fa9c-23d5c2b0-0cc47adb5650-8afbf9c72d6617f0&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (b)(6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracev McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umarvland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6) >: Daniel √(b)(6) (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) \(\sqrt{b\gamma6}\) : Lisa Koonin >; MELISSA <melissa.harvev@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric,McDonald@sdcounty.ca.gov>; David <david,wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>;

Danny Shiau <dshiau@< th=""><th>cghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva</richard.hunt@hhs.gov></th></dshiau@<>	cghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva</richard.hunt@hhs.gov>
Lee (b)(6)	; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Subject: RE: Red Daw	n Rising Start Feb 29

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/03 21:08:10

Delivered Date: 2020/03/03 21:08:11

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO
<Robert_Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Subject: FW: Red Dawn Rising Start Feb 29

Date: 2020/03/04 21:35:56

Priority: Normal

Type: Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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Note to contractors: nothing in this e-mail is intended to constitute contractual direction or to impact cost, price, or schedule contained in the contract. If the contractor believes there is an impact, the contractor must disregard that portion of the communication and contact the Contracting Officer for direction

From: Tracey McNamara <tmcNamara@westernu.edu>

Sent: Wednesday, March 4, 2020 7:39 PM

To: Dr. Eva K Lee <evalee-gatech@pm.me>; Carter Mecher <cmecher@charter.net>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>

Cc: Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee ⟨b⟩(6)

THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;

riglassir@gmail.com; Dodgen, Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@HHS.GOV>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (h)(6) Lisa Koonin (b)(6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV)

(USDA.GOV)

</pr Subject: Re: Red Dawn Rising Start Feb 29

So this suggests the old "sweat lodge" approach might work? Sweat it out of them? Interesting, especially since SARS loved air conditioning. Tracey

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From: Hunt, Richard (OS/ASPR/EMMO) < Richard. Hunt@hhs.gov> Sent: Wednesday, March 4, 2020 3:01:11 PM To: Dr. Eva K Lee <evalee-gatech@pm.me>; Carter Mecher <cmecher@charter.net> Cc: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee
(b)(6) >; THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>(b)(6) <(b)(6) ; Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV >; DeBord, Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) < Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) ; Lisa Koonin 4/61/61 MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) < Joseph.Hamel@hhs.gov>; Luciana < LBorio@iqt.org>; Dan < DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov <eric.mcdonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard

<Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) < steven.stack@ky.gov>; Adams, Jerome
(HHS/OASH) < Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) < jessica.fantinato@usda.gov>;
DC < michelle.colby@usda.gov>; danny.shiau@usuhs.edu < danny.shiau@usuhs.edu>

Subject: RE: Red Dawn Rising Start Feb 29

Am tracking this really valuable thread among the best of the best....

Not trying to clog anyone's in box but below caught my attention enough to share w/ the group.

Below abstract not peer reviewed. Wouldn't take it to the bank, but haven't seen any prior studies on alternate care site impact on mortality. Gratefully, not many opportunities to study this.

Caught my attention in that it showed decrease in mortality once they implemented the makeshift hospitals. Odd they added the ambient temp in same abstract, but tracks w/others I've seen on the temp changes.

Rick

Sent from my iPhone

Begin forwarded message:

From: "Folkers, Greg (NIH/NIAID) [E]" <gfolkers@niaid.nih.gov>

Date: March 2, 2020 at 5:43:13 PM EST

Subject: medRxiv: The Effects of "Fangcang, Huoshenshan, and Leishenshan" Makeshift Hospitals and Temperature on the Mortality of COVID-19

The Effects of "Fangcang, Huoshenshan, and Leishenshan" Makeshift Hospitals and Temperature on the Mortality of COVID-19

Yuwen Cal, Tianlun Huang Sr., Xin Liu Sr., Gaosi Xu Sr. doi: https://doi.org/10.1101/2020.02.26.20028472

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

- Abstract
- Info/History
- Metrics
- . .
- . .
- Preview PDF

Abstract

Background In December 2019, a novel coronavirus disease (COVID-19) broke out in Wuhan, China, however, the factors affecting the mortality remain unclear. Methods Thirty-two days of data that were shared by China National Health Commission and China Weather Net were collected using standard forms. The difference in the mortality of confirmed and severe cases before and after the use of Fangcang, Huoshenshan, and Leishenshan makeshift hospitals (MSHs) was tested using Mann-Whitney U test. We also studied whether air temperature (AT) could affect the above outcomes of COVID-19

cases by performing Spearman analysis. Results The mortality of confirmed cases was significantly decreased both in Wuhan (U = 1, P <0.001) and Hubei (U = 0, P <0.001), while in non-Hubei regions, as a contrast, the mortality of confirmed cases remained unchanged (U = 40, P = 0.139). However, another eight days later, changes in the mortality in non-Hubei regions also became significant (U = 73, P = 0.039). Mortality of confirmed cases was found to be significantly correlated with temperature both in Wuhan (r = -0.441, P = 0.012) and Hubei (r = -0.440, P = 0.012). Conclusions Our findings indicated that both the use of MSHs and the rise of AT were beneficial to the survival of COVID-19 cases.

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From: Dr. Eva K Lee <evalee-gatech@pm.me> Sent: Wednesday, March 4, 2020 5:48 PM To: Carter Mecher <cmecher@charter.net> Cc: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. >; THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV >; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) ; Lisa Koonin (b)(6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) (USDA.GOV) < Hunt, Richard (OS/ASPR/EMMO) < Richard. Hunt@hhs.gov> Subject: RE: Red Dawn Rising Start Feb 29

I wonder maybe everyone is waiting for the 8 billion funds before they are ready to get into the battlefield against covid-19. I hope they are seeing it as a system where we need to take care of pre-emptive measures (which the optimal timing has past), rapid screening (same too past the optimal timing), treatment resources, and vaccien design. Lots of catch up to do even with 8 billion dollars. Hopefully they can optimize wisely.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 5:33 PM, Carter Mecher < cmecher@charter.net>wrote:
We don't have the same brake pedal to push.
Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 5:14 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

I think China is a bit late in taking the necessary actions and then they slammed the brake hard and tried to stop it. It's a huge brake -- of complete seal off of the city and massive number of beds and military medical providers introduced. They missed the early sign because noone wants to believe that it would spiral out of control. Their previous SARS experience may have made them think that it was not as infectious. Oh well, theirs (their actions) is history. Now it is ours to make.

evalee-gatech@pm.me

https://newton.isve.gatech.edu/DrLee/

mobil	e:(b)(6)	
incon		

Sent with ProtonMail Secure Email.

----- Original Message ------

On Wednesday, March 4, 2020 4:52 PM, Carter Mecher < cmecher@charter.net>wrote:

And an article that Nathaniel shared that suggests that what happened in Wuhan was mitigated (get your head around that). If that was mitigated, think of what an unmitigated outbreak might look like.

https://protect2.fireeye.com/url?k=60f5be2b-3ca0b738-60f58f14-0cc47adb5650-57304d2596c71317&u=https://protect2.fireeye.com/url?k=700954cd-2c5d4db1-700965f2-0cc47adc5fa2-286c91bd092e46ea&u=https://www.worldpop.org/resources/docs/COVID_NPI/WorldPop_COV

ID-19 outbreak.pdf

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:50 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

[b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;

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(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;

david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Resending Richard's note below and links to articles (we don't need to get fancy, we need to do what works):

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:43 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;
Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally
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(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;

david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Pasted Washington guidance below. This will not reduce community transmission (not enough). Protective sequestration.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 4:09 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane;
David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON;

(b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;

Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary

(OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph

(OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A;

david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

What if the players get sick (with covid-19)? So that would become a big scandals on government's decision.

I think it is better for us (in the US) to think that it is a new infectious disease and we don't have any cure nor MCM nor much kmowledge. Let's be cautious and nail it early by putting in precautionary NPI and various steps so that we feel good about being a step ahead of the virus, instead of chasing after it as in Italy, S. Korea. It is again a good time to test how well we can rally business to do the same. I don't see how the government leaders have anything to lose to put in the appropriate measures now.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 2:57 PM, Carter Mecher < cmecher@charter.net > wrote:
Look at the desperation in Italy.
Italian government orders all sporting events to take place without fans until April 3 due to coronavirus
Italy is considering to put more towns in northern Italy on lockdown due to coronavirus
Sent from Mail for Windows 10
From: Carter Mecher
Sent: Wednesday, March 4, 2020 2:36 PM
To: Dr. Eva K Lee
Ce: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally

(OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT;

Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get

a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. if not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 7:44 AM, Carter Mecher <cmecher@charter.net>wrote</cmecher@charter.net>

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918

pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM

Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b) Daniel (OS/ASPR/SPPR); Kristin
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MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
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A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview, Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;

Gregory J; William; CAMERON; (b)(6)

Daniel (OS/ASPR/SPPR); Kristin

(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert

(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)

(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven

Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

 Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness

- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;

Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin

(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

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Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

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Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; Matthew J CIV USARMY (USA); Lisa Koonin;
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty

cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

-

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett < richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee </br/>
(b)(6) Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) ; Lisa Koonin < lkoonin 1@gmail.com>; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@igt.org>; Dan <DHanfling@igt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Rvan Morhard <Rvan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evaleegatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

 Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;

- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;

MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert

(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david,gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

<cameron.hamilton@hq.dhs.gov>;(b)(6)

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee

⟨b)(6)

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.

<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane

<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert

<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S

<rbox/rbaric@email.unc.edu>; Richard Hatchett <ri>richard.hatchett@cepi.net>; Gregory J

<MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON

<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally

Daniel (OS/ASPR/SPPR)

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(OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                               P; Lisa Koonin (b)(6)
                                                                  : MELISSA
1/b)(6)
<melissa.harvev@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<a href="mailto:</a> <a href="mailto:david.a.tarantino@cbp.dhs.gov">david.a.tarantino@cbp.dhs.gov</a> ; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan, Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<iessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
```

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- 3. Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

From: Carter Mecher < cmecher@charter.net >
Sent: Monday, March 02, 2020 11:45 AM
To: Dr. Eva Lee ⟨b\/6\ >; Tracey McNamara <tmcnamara@westernu.edu></tmcnamara@westernu.edu>
Ce: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D.
<mvcallahan@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu></mvcallahan@mgh.harvard.edu>
<duane.caneva@hq.dhs.gov>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu></duane.caneva@hq.dhs.gov>
<tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S</tom.bossert@me.com>
<rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J</richard.hatchett@cepi.net></rbaric@email.unc.edu>
<martingj@state.gov>; William <walterswa2@state.gov>; CAMERON</walterswa2@state.gov></martingj@state.gov>
<ameron.hamilton@hq.dhs.gov>; /by/6\ Daniel (OS/ASPR/SPPR)</ameron.hamilton@hq.dhs.gov>
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally</daniel.dodgen@hhs.gov>
(OS/ASPR/SPPR) <sally, phillips@hhs.gov="">; Matthew J CIV USARMY (USA)</sally,>
√b)(6) >; Lisa Koonin √(b)(6) >; MELISSA
<melissa.harvey@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</mariefred.evans@associates.hq.dhs.gov></alexander.eastman@hq.dhs.gov>
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov>; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>; John</gary.disbrow@hhs.gov></kevin.yeskey@hhs.gov>
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana</joseph.hamel@hhs.gov></david.hassell@hhs.gov>
<lborio@iqt.org>; Dan <dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org></lborio@iqt.org>
<eric.mcdonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov></eric.mcdonald@sdcounty.ca.gov>
<a href="mailto: david.a.tarantino@cbp.dhs.gov ; david.gruber@dshs.texas.gov ; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH</ryan.morhard@weforum.org></padgetlg@state.gov>
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;</michelle.colby@usda.gov></jessica.fantinato@usda.gov>
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-< td=""></evalee-<></dshiau@cghe.org>
gatech@pm.me>

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee <	wrote
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Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=17944b05-4bc14216-17947a3a-0cc47adb5650-

19a1479d71739bbf&u=https://protect2.fireeye.com/url?k=a7a4cc1a-fbf0d566-a7a4fd25-0cc47adc5fa2-

3b82530c16cff920&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (b)(6)

Sent: Monday, March 2, 2020 7:45:51 AM

To: THOMAS < THOMAS, WILKINSON@hq,dhs,gov >; M.D. < MVCALLAHAN@mgh.harvard.edu >; Tracey McNamara < tmcNamara@westernu.edu >; James V < james.lawler@unmc.edu >;

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Duane <duane.caneva@hq.dhs.gov>; David
<DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH
<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard
Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>;
William <WaltersWA2@state.gov>; CAMERON
<cameron.hamilton@hq.dhs.gov>;(b)(6)
                  >; Daniel (OS/ASPR/SPPR)
(b)(6)
<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR)
<Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                             : Lisa Koonin
1/h1/61
                   : MELISSA <melissa.harvev@hq.dhs.gov>:
(h)/G)
HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu
<iwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)
<Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary
(OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO)
<Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan
<DHanfling@iqt.org>; Eric (San Diego County)
< Eric.McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>;
DAVID A <david.a.tarantino@cbp.dhs.gov>;
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott
<Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard
<Rvan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/OASH)
<Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu
<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee
                          >; Carter Mecher <cmecher@charter.net>
(b)(6)
Subject: RE: Red Dawn Rising Start Feb 29
```

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

valee-gatech@p		Transaction (CVT)
ttps://newton.is	ye.gatech.edu	/DrLee/
obile: (h)(6)		

Sender: Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306878740A4A60745E2-JOHNSON, RO <Robert. Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <Rick. Bright@hhs.gov>

Sent Date: 2020/03/04 21:35:55

Delivered Date: 2020/03/04 21:35:56

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:22
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell (b)(6)

email: Robert.Johnson@HHS.gov

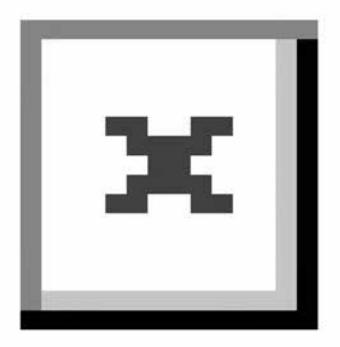
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From: Carter Mecher < cmech	er@charter.net>	
Sent: Wednesday, March 4, 2	020 4:43 PM	
To: Dr. Eva K Lee <evalee-gat< td=""><th>ech@pm.me></th><td></td></evalee-gat<>	ech@pm.me>	
Cc: Tracey McNamara <tmcn< td=""><th>amara@westernu.edu>; Richard Ha</th><td>atchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net></td></tmcn<>	amara@westernu.edu>; Richard Ha	atchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net>
Eva Lee <th>; THOMAS <thomas.w< th=""><td>ILKINSON@hq.dhs.gov>; M.D.</td></thomas.w<></th>	; THOMAS <thomas.w< th=""><td>ILKINSON@hq.dhs.gov>; M.D.</td></thomas.w<>	ILKINSON@hq.dhs.gov>; M.D.
<mvcallahan@mgh.harvar< td=""><th>d.edu>; James V <james.lawler@ur< th=""><td>nmc.edu>; Caneva, Duane (DHS.GOV)</td></james.lawler@ur<></th></mvcallahan@mgh.harvar<>	d.edu>; James V <james.lawler@ur< th=""><td>nmc.edu>; Caneva, Duane (DHS.GOV)</td></james.lawler@ur<>	nmc.edu>; Caneva, Duane (DHS.GOV)
<duane.caneva@hq.dhs.gov></duane.caneva@hq.dhs.gov>	; David < DMarcozzi@som.umaryla	nd.edu>; Tom Bossert
<tom.bossert@me.com>; Ch</tom.bossert@me.com>	arity A@CDPH <charity.dean@cdpl< th=""><td>h.ca.gov>; Ralph S</td></charity.dean@cdpl<>	h.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gre</rbaric@email.unc.edu>	gory J <martingj@state.gov>; Wal</martingj@state.gov>	ters, William (STATE.GOV)
<walterswa2@state.gov>; CA</walterswa2@state.gov>	MERON <cameron.hamilton@hq.d< th=""><td>fhs.gov>; (b)(6) ; Dodgen,</td></cameron.hamilton@hq.d<>	fhs.gov>; (b)(6) ; Dodgen,

Daniel (OS/ASPR/SPPR) < Daniel Dodge	en@HHS.GOV>; DeBord, Kristin (OS/ASPR	(/SPPR)
<kristin.debord@hhs.gov>; Phillips, Sa</kristin.debord@hhs.gov>	ally (OS/ASPR/SPPR) <sally.phillips@hhs.j< td=""><td>gov>; Matthew J CIV</td></sally.phillips@hhs.j<>	gov>; Matthew J CIV
USARMY (USA) (b)(6)	; Lisa Koonin <(b)(6)	; MELISSA
<melissa.harvey@hq.dhs.gov>; Wolfe,</melissa.harvey@hq.dhs.gov>	Herbert (DHS.GOV) <herbert.wolfe@hq< td=""><td>.dhs.gov>;</td></herbert.wolfe@hq<>	.dhs.gov>;
alexander.eastman@hq.dhs.gov; MAR	RIEFRED < mariefred.evans@associates.ho	.dhs.gov>;
jwleduc@utmb.edu; Johnson, Robert	(OS/ASPR/BARDA) < Robert. Johnson@hh	s.gov>; Yeskey, Kevin
(OS/ASPR/IO) <kevin.yeskey@hhs.gov< td=""><td>>; Disbrow, Gary (OS/ASPR/BARDA) < Gar</td><td>ry.Disbrow@hhs.gov>;</td></kevin.yeskey@hhs.gov<>	>; Disbrow, Gary (OS/ASPR/BARDA) < Gar	ry.Disbrow@hhs.gov>;
Redd, John (OS/ASPR/SPPR) < John.Red	dd@hhs.gov>; Hassell, David (Chris) (OS/	ASPR/IO)
<david.hassell@hhs.gov>; Hamel, Jose</david.hassell@hhs.gov>	eph (OS/ASPR/IO) <joseph.hamel@hhs.g< td=""><td>ov>; Luciana</td></joseph.hamel@hhs.g<>	ov>; Luciana
<lborio@iqt.org>; Dan <dhanfling@io< td=""><td>t.org>; eric.mcdonald@sdcounty.ca.gov</td><td>; David</td></dhanfling@io<></lborio@iqt.org>	t.org>; eric.mcdonald@sdcounty.ca.gov	; David
<david.wade@hq.dhs.gov>; david.a.ta</david.wade@hq.dhs.gov>	rantino@cbp.dhs.gov; david.gruber@dsl	ns.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Lee,</sangeeta.kaushik@hq.dhs.gov>	Scott (OS/ASPR/EMMO) <scott.lee@hh< td=""><td>s.gov>; Larry G</td></scott.lee@hh<>	s.gov>; Larry G
<padgetlg@state.gov>; Ryan Morhard</padgetlg@state.gov>	d <ryan.morhard@weforum.org>; Steve</ryan.morhard@weforum.org>	n Jt(tCHFStDPH)
<steven.stack@ky.gov>; Adams, Jeron</steven.stack@ky.gov>	ne (HHS/OASH) <jerome.adams@hhs.go< td=""><td>v>; Fantinato, Jessica</td></jerome.adams@hhs.go<>	v>; Fantinato, Jessica
(USDA.GOV) < jessica.fantinato@usda.	gov>; DC <michelle.colby@usda.gov>; da</michelle.colby@usda.gov>	nny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; Hun</dshiau@cghe.org>	t, Richard (OS/ASPR/EMMO) < Richard.Hi	unt@hhs.gov>
Subject: RE: Red Dawn Rising Start Feb	29	And the state of t

Pasted Washington guidance below. This will not reduce community transmission (not enough). Protective sequestration.



Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 4:09 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);

Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);

Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov Subject: RE: Red Dawn Rising Start Feb 29

What if the players get sick (with covid-19)? So that would become a big scandals on government's decision.

I think it is better for us (in the US) to think that it is a new infectious disease and we don't have any cure nor MCM nor much kmowledge. Let's be cautious and nail it early by putting in precautionary NPI and various steps so that we feel good about being a step ahead of the virus, instead of chasing after it as in Italy, S. Korea. It is again a good time to test how well we can rally business to do the same. I don't see how the government leaders have anything to lose to put in the appropriate measures now.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: [h)(A)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 2:57 PM, Carter Mecher < cmecher@charter.net > wrote:
Look at the desperation in Italy.
Italian government orders all sporting events to take place without fans until April 3 due to coronavirus
Italy is considering to put more towns in northern Italy on lockdown due to coronavirus
Sent from Mail for Windows 10

From: Carter Mecher

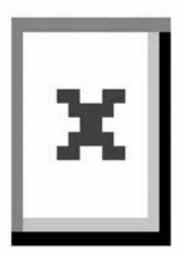
Sent: Wednesday, March 4, 2020 2:36 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom
Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Liva Daniel
[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);
Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);
Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.



Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; JAMES J Daniel

(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);

Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);

Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);
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Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. if not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 7:44 AM, Carter Mecher <cmecher@charter.net>wrote:</cmecher@charter.net>

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM

Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Lisa Special Costant Costa

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; [b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said. The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; Matthew J CIV USARMY (USA); Lisa Koonin;
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 03, 2020 2:27 AM
To: Richard Hatchett < richard.hatchett@cepi.net>; Tracey McNamara
<tmcNamara@westernu.edu>; Dr. Eva Lee <br/>
<br/>
(b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William
<WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;
rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin
(OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                             : Lisa Koonin (b)(6)
                                                               : MELISSA
√(b)(6)
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
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The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara < tmcNamara@westernu.edu>; Dr. Eva Lee
₹b)(6)
Ce: THOMAS < THOMAS. WILKINSON@hq.dhs.gov >; M.D.
< <u>MVCALLAHAN@mgh.harvard.edu</u> >; James V < <u>james.lawler@unmc.edu</u> >; Duane
<a href="mailto:sumaryland.edu</td></tr><tr><td><tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S</td></tr><tr><td><rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J</td></tr><tr><td><MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON</td></tr><tr><td><ameron.hamilton@hq.dhs.gov>; /bys\ Daniel (OS/ASPR/SPPR)</td></tr><tr><td><Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally</td></tr><tr><td>(OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)</td></tr><tr><td>⟨b)/6⟩ ; Lisa Koonin ⟨(b)(6) ; MELISSA</td></tr><tr><td><melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander</td></tr><tr><td><alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</td></tr><tr><td>jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin</td></tr><tr><td><kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John</td></tr><tr><td>(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</td></tr><tr><td><<u>David.Hassell@hhs.gov</u>>; Joseph (OS/ASPR/IO) <<u>Joseph.Hamel@hhs.gov</u>>; Luciana</td></tr><tr><td><<u>LBorio@iqt.org</u>>; Dan <<u>DHanfling@iqt.org</u>>; Eric (San Diego County)</td></tr><tr><td>< Eric.McDonald@sdcounty.ca.gov >; David < david.wade@hq.dhs.gov >; DAVID A</td></tr><tr><td>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
< PadgetLG@state.gov>; Ryan Morhard < Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>
<jessica_fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;</michelle.colby@usda.gov></jessica_fantinato@usda.gov>
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-< td=""></evalee-<></dshiau@cghe.org>
gatech@pm.me>

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6)

OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-trackcoronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee </br/> : Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) ; Lisa Koonin (b)(6) >: MELISSA <(b)(6) <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <a href="mailto: <a href="mailt <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric

(San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon,	Mar 2,	2020 at	11:58	AM Dr.	Eva Lee	√(b)(6)	>wro
On Mon,	Mar 2,	2020 at	11:58	AM Dr.	Eva Lee	√(b)(6)	>11

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=e99b639c-b5ce6a4c-e99b52a3-0cc47a6a52de-1a169a289dd9b854&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

```
From: Dr. Eva Lee (b)(6)
Sent: Monday, March 2, 2020 7:45:51 AM
To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara
<tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>;
Duane <duane.caneva@hq.dhs.gov>; David
<DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH
<Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard
Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>;
William <WaltersWA2@state.gov>; CAMERON
<cameron.hamilton@hq.dhs.gov>;/b)/6)
                  : Daniel (OS/ASPR/SPPR)
<<u>Daniel.Dodgen@hhs.gov</u>>; Kristin (OS/ASPR/SPPR)
<Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
</h
                              : Lisa Koonin
                    : MELISSA <melissa.harvey@hq.dhs.gov>;
√(b)(6)
HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hg.dhs.gov>; jwleduc@utmb.edu
<iwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)
<Robert.Johnson@hhs.gov>; Kevin <kevin.yeskev@hhs.gov>; Gary
(OS/ASPR/BARDA) < Gary. Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO)
<Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan
<DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>;
DAVID A <david.a.tarantino@cbp.dhs.gov>:
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott
<Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard
<Rvan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/OASH)
<Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu
<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee
                          ; Carter Mecher <cmecher@charter.net>
(b)(6)
Subject: RE: Red Dawn Rising Start Feb 29
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We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm	.me
https://newton.isye	.gatech.edu/DrLee/
mobile: (b)(6)	
(b)(6)	

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

Recipient: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/04 18:20:21 Delivered Date: 2020/03/04 18:20:22

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:07:47
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (h)(6)

email: Robert.Johnson@HHS.gov

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From: Carter Meche	er <cmecher@charter.net></cmecher@charter.net>
Sent: Tuesday, Mar	ch 3, 2020 2:29 PM
To: Tracey McNama	ra <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
Eva Lee < (b)(6)	
Cc: THOMAS <thom< td=""><td>MAS.WILKINSON@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu></td></thom<>	MAS.WILKINSON@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu>
<james.lawler@unr< td=""><td>nc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></td></james.lawler@unr<>	nc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
<dmarcozzi@som.u< td=""><td>maryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></td></dmarcozzi@som.u<>	maryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
<charity.dean@cdp< td=""><td>h.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu></td></charity.dean@cdp<>	h.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu>
Walters, William (ST	FATE.GOV) < walterswa2@state.gov>; CAMERON < cameron.hamilton@hq.dhs.gov>;
(b)(6)	Dodgen, Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@HHS. GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) <(b)(6) ; Lisa Koonin (h)(6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin-(OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) < Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key points:

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount
 of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- 3. If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- 5. There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- 8. Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR);

Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR);

Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED;

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR);

David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=lwAR1mBA6yW0sR kebFJsGbGlwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for

the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (h)(6) Cc: THOMAS <THOMAS, WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity,Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; //b\/e\ Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@hhs.gov >; Kristin (OS/ASPR/SPPR) < Kristin. DeBord@hhs.gov >; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) ; Lisa Koonin (h)(6) </h >; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (Lave) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher < cmecher@charter.net >	
Sent: 03 March 2020 03:59	
To: Tracey McNamara <tmcnamara@westernu.edu>; Dr. Eva Lee √h\/6\</tmcnamara@westernu.edu>	}
Cc: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@n	ngh.harvard.edu>; James V
<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>	
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>;</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>	Charity A@CDPH
<charity.dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Ha</rbaric@email.unc.edu></charity.dean@cdph.ca.gov>	tchett
<ri>crichard.hatchett@cepi.net>; Gregory J <martingj@state.gov>; William <w< td=""><td></td></w<></martingj@state.gov></ri>	
CAMERON <cameron.hamilton@hq.dhs.gov>; /h\/6\ Daniel</cameron.hamilton@hq.dhs.gov>	(OS/ASPR/SPPR)
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.g< td=""><td>ov>; Sally (OS/ASPR/SPPR)</td></kristin.debord@hhs.g<></daniel.dodgen@hhs.gov>	ov>; Sally (OS/ASPR/SPPR)
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<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS</mariefred.evans@associates.hq.dhs.gov>	
<robert.johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASP</kevin.yeskey@hhs.gov></robert.johnson@hhs.gov>	R/BARDA)
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; Da</john.redd@hhs.gov></gary.disbrow@hhs.gov>	avid (Chris) (OS/ASPR/IO)
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>;</joseph.hamel@hhs.gov></david.hassell@hhs.gov>	Luciana < LBorio@iqt.org>;
Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcour	nty.ca.gov>; David
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.a.tarantino@cbp.dhs.gov>; david.a.tarantino.gov>; david.a.tarantino.go</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov>	
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; La</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>	arry G
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Sto</ryan.morhard@weforum.org></padgetlg@state.gov>	even Jt(tCHFStDPH)
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<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau</michelle.colby@usda.gov></jessica.fantinato@usda.gov>	@usuhs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@< td=""><td>pm.me></td></evalee-gatech@<></dshiau@cghe.org>	pm.me>
Subject: RE: Red Dawn Rising Start Feb 29	Tanana tana 7.2.
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Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John

(OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Dr. Eva K Lee
Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine

Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@char< th=""><th>ter.net></th></cmecher@char<>	ter.net>
Sent: Monday, March 02, 2020 11:45	AM
To: Dr. Eva Lee (h)/6)	; Tracey McNamara <tmcnamara@westernu.edu></tmcnamara@westernu.edu>
Cc: THOMAS < THOMAS.WILKINSON@	hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu>
<james.lawler@unmc.edu>; Duane <d< td=""><td>uane.caneva@hq.dhs.gov>; David</td></d<></james.lawler@unmc.edu>	uane.caneva@hq.dhs.gov>; David
<dmarcozzi@som.umaryland.edu>; To</dmarcozzi@som.umaryland.edu>	om Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
<charity.dean@cdph.ca.gov>; Ralph S</charity.dean@cdph.ca.gov>	<pre><rbaric@email.unc.edu>; Richard Hatchett</rbaric@email.unc.edu></pre>
<ri>crichard.hatchett@cepi.net>; Gregory</ri>	J <martingj@state.gov>; William <walterswa2@state.gov>;</walterswa2@state.gov></martingj@state.gov>
CAMERON <cameron.hamilton@hq.dl< td=""><td>ns.gov>x(b)(6) Daniel (OS/ASPR/SPPR)</td></cameron.hamilton@hq.dl<>	ns.gov>x(b)(6) Daniel (OS/ASPR/SPPR)
<daniel.dodgen@hhs.gov>: Kristin (O:</daniel.dodgen@hhs.gov>	S/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov>

<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) √bV6\ : Lisa Koonin ; MELISSA < melissa.harvey@hq.dhs.gov>; HERBERT Thy61 <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED

<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)

<Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)

<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)

<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>;

Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David

<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;

SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G

<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH)

<steven.stack@kv.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau

<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

Public health officials near Seattle reported the nation's first two deaths in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; riglassjr@gmail.com; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John

(OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Lerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee
Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara < tmcNamara@westernu.edu>wrote:
https://protect2.fireeye.com/url?k=685ab0b9-340fb969-685a8186-0cc47a6a52de-3ea18fe7faa0f93b&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

Get Outlook for Android

From: Dr. Eva Lee ∮(b)(6) >
Sent: Monday, March 2, 2020 7:45:51 AM
To: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D.
<mvcallahan@mgh.harvard.edu>; Tracey McNamara <tmcnamara@westernu.edu>;</tmcnamara@westernu.edu></mvcallahan@mgh.harvard.edu>
James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>
A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S < rbaric@email.unc.edu>; Richard Hatchet
<ri>chard.hatchett@cepi.net>; Gregory J < MartinGJ@state.gov>; William</ri>
<walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
(b)(6) >; Daniel (OS/ASPR/SPPR)
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally</daniel.dodgen@hhs.gov>
(OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>
; Lisa Koonin (b)(6) ; MELISSA
<melissa.harvey@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov></melissa.harvey@hq.dhs.gov>
<alexander.eastman@hg.dhs.gov>; MARIEFRED <mariefred.evans@associates.hg.dhs.gov></mariefred.evans@associates.hg.dhs.gov></alexander.eastman@hg.dhs.gov>

jwleduc@utmb.e	du <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)</jwleduc@utmb.edu>
<robert.johnson< th=""><th>@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></th></robert.johnson<>	@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov>
<gary.disbrow@< th=""><th>hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris)</th></gary.disbrow@<>	hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris)
(OS/ASPR/IO) <d< th=""><th>avid.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) < Joseph.Hamel@hhs.gov></th></d<>	avid.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) < Joseph.Hamel@hhs.gov>
Luciana <lborio@< th=""><th>iqt.org>; Dan <dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org></th></lborio@<>	iqt.org>; Dan <dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org>
<eric.mcdonald@< td=""><td>osdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov></td></eric.mcdonald@<>	osdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov>
<david.a.tarantin< td=""><td>o@cbp.dhs.gov>; david.gruber@dshs.texas.gov</td></david.a.tarantin<>	o@cbp.dhs.gov>; david.gruber@dshs.texas.gov
<david.gruber@d< td=""><td>shs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott</sangeeta.kaushik@hq.dhs.gov></td></david.gruber@d<>	shs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott</sangeeta.kaushik@hq.dhs.gov>
<scott.lee@hhs.s< td=""><td>gov>; Larry G < PadgetLG@state.gov>; Ryan Morhard</td></scott.lee@hhs.s<>	gov>; Larry G < PadgetLG@state.gov>; Ryan Morhard
<ryan.morhard@< td=""><td>weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov></td></ryan.morhard@<>	weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov>
(HHS/OASH) < Jer	ome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov>
<michelle.colby@< th=""><th>ousda.gov>; danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>; Danny</danny.shiau@usuhs.edu></th></michelle.colby@<>	ousda.gov>; danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>; Danny</danny.shiau@usuhs.edu>
Shiau <dshiau@c< th=""><th>ghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov></th></dshiau@c<>	ghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov>
4/P//E/	; Carter Mecher < cmecher@charter.net>
Subject: RE: Red	Dawn Rising Start Feb 29
We need actions,	actions, actions and more actions. We are going to have pockets of
epicenters across	this country, West coast, East coast and the South. Our policy leaders
must act now. Ple	ease make it happen!
evalee-gatech@p	om.me_
https://newton.is	sye.gatech.edu/DrLee/
mobile: VAVA	portropos established
(b)(6)	

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYD1BOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Sent Date:	2020/03/03 21:07:46
Delivered Date:	2020/03/03 21:07:47

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:19:48
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (h)(6)

email: Robert.Johnson@HHS.gov

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From: Carter Mecher < cmeche	r@charter.net>	
Sent: Wednesday, March 4, 20	020 2:57 PM	
To: Dr. Eva K Lee <evalee-gate< td=""><td>ch@pm.me></td><td></td></evalee-gate<>	ch@pm.me>	
Cc: Tracey McNamara <tmcna< td=""><td>mara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.r< td=""><td>net>; Dr.</td></richard.hatchett@cepi.r<></td></tmcna<>	mara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.r< td=""><td>net>; Dr.</td></richard.hatchett@cepi.r<>	net>; Dr.
Eva Lee (/h)/6)	; THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D.</thomas.wilkinson@hq.dhs.gov>	
<mvcallahan@mgh.harvard< td=""><td>ledu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.0</james.lawler@unmc.edu></td><td>SOV)</td></mvcallahan@mgh.harvard<>	ledu>; James V <james.lawler@unmc.edu>; Caneva, Duane (DHS.0</james.lawler@unmc.edu>	SOV)
<duane.caneva@hq.dhs.gov>;</duane.caneva@hq.dhs.gov>	David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>	
<tom.bossert@me.com>; Char</tom.bossert@me.com>	rity A@CDPH <charity.dean@cdph.ca.gov>; Ralph S</charity.dean@cdph.ca.gov>	
<rbaric@email.unc.edu>; Greg</rbaric@email.unc.edu>	ory J <martingj@state.gov>; Walters, William (STATE.GOV)</martingj@state.gov>	
<walterswa2@state.gov>; CAN</walterswa2@state.gov>	MERON <cameron.hamilton@hq.dhs.gov>[/h\/e\]D</cameron.hamilton@hq.dhs.gov>	odgen,

Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV >; Lisa Koonin (b)(6) USARMY (USA) 4/6//6/ : MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov> Subject: RE: Red Dawn Rising Start Feb 29

Look at the desperation in Italy.

Italian government orders all sporting events to take place without fans until April 3 due to coronavirus Italy is considering to put more towns in northern Italy on lockdown due to coronavirus

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:36 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; LANGE Daniel

(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);

Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);

Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

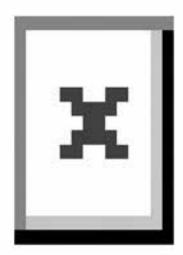
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.



Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly

what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

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From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom
Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; KNG Daniel
(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);
Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);
Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

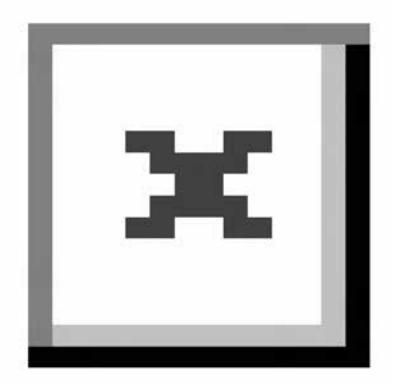
Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

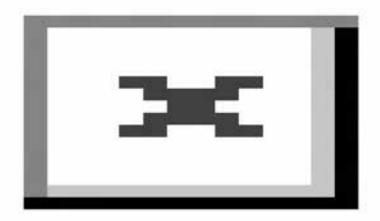
I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home — they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. If not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me	
https://newton.isye.gatech.edu/DrLee/	
mobile: (b)(6)	
Sent with ProtonMail Secure Email.	
Original Message	
On Wednesday, March 4, 2020 7:44 AM, Carter Mech	er <cmecher@charter.net>wrote</cmecher@charter.net>

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.





Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; M.D.; James V; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/ South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Userome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff

- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH);

tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (NAVE) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for

the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (b)(6) Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hg.dhs.gov>;/المراحة Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) Lisa Koonin (b)(6) : MELISSA 1/b)(6) <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <<u>John.Redd@hhs.gov</u>>; David (Chris) (OS/ASPR/IO) <<u>David.Hassell@hhs.gov</u>>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM
To: Carter Mecher; Tracey McNamara; Dr. Eva Lee Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee Subject: RE: Red Dawn Rising Start Feb 29
Critically important article on how China succeeded in suppressing transmission –
https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirus-they-may-not-work-other-countries
The referenced report is at
https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf
Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.
From: Carter Mecher <cmecher@charter.net> Sent: 03 March 2020 03:59 To: Tracey McNamara <tmcnamara@westernu.edu>; Dr. Eva Lee <(b)(6) Cc: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V <iames.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <charity.dean@cdph.ca.gov>; Ralph S <rboxric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <martingj@state.gov>; William <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) Daniel (OS/ASPR/SPPR) <daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA) <(b)(6) ; Lisa Koonin</sally.phillips@hhs.gov></kristin.debord@hhs.gov></daniel.dodgen@hhs.gov></cameron.hamilton@hq.dhs.gov></walterswa2@state.gov></martingj@state.gov></richard.hatchett@cepi.net></rboxric@email.unc.edu></charity.dean@cdph.ca.gov></tom.bossert@me.com></dmarcozzi@som.umaryland.edu></duane.caneva@hq.dhs.gov></iames.lawler@unmc.edu></mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov></tmcnamara@westernu.edu></cmecher@charter.net>

(b)(6) ; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT
<HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)
<Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)
<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Fric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DaVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <iessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>
Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of: Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be

guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- 3. Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-trackcoronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher < cmecher@charter.net > Sent: Monday, March 02, 2020 11:45 AM

To: Dr. Eva Lee <(b)(6) ; Tracey McNamara <tmcNamara@westernu.edu>

CC: THOMAS < THOMAS.WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.edu>; James V
<iames.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></iames.lawler@unmc.edu>
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>
< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@email.unc.edu</u> >; Richard Hatchett
<ri>crichard.hatchett@cepi.net>; Gregory J <martingj@state.gov>; William <walterswa2@state.gov>;</walterswa2@state.gov></martingj@state.gov></ri>
CAMERON <cameron.hamilton@hq.dhs.gov>/k\/g\ Daniel (OS/ASPR/SPPR)</cameron.hamilton@hq.dhs.gov>
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov>
< <u>Sally.Phillips@hhs.gov</u> >; Matthew J CIV USARMY (USA) √hve\ Lisa Kooni
; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT</melissa.harvey@hq.dhs.gov>
< <u>HERBERT.WOLFE@hq.dhs.gov</u> >; Alexander < <u>alexander.eastman@hq.dhs.gov</u> >; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)</mariefred.evans@associates.hq.dhs.gov>
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></robert_johnson@hhs.gov>
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov></gary.disbrow@hhs.gov>
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></joseph.hamel@hhs.gov></david.hassell@hhs.gov>
Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.McDonald@sdcounty.ca.gov>; David
<pre><david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov></pre>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org></padgetlg@state.gov>
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>
< <u>iessica.fantinato@usda.gov</u> >; DC < <u>michelle.colby@usda.gov</u> >; <u>danny.shiau@usuhs.edu</u> ; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me></dshiau@cghe.org>
Subject: RF: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Phys. ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon,	Mar 2,	, 2020 at	11:58 AN	1 Dr. E	va Lee	(h)(6)	 -wrote:
							_

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara tmcNamara@westernu.edu>wrote: https://protect2.fireeye.com/url?k=fa6397bc-a637be97-fa63a683-0cc47a6d17cc-

67bbe46deacfc5a1&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

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From: Dr. Eva Lee (b)(6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;VhV6) 7: Daniel (OS/ASPR/SPPR) √(b)(6) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sallv (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) THI/AI : Lisa Koonin : MELISSA <melissa.harvey@hq.dhs.gov>: (b)(6) HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott

<scott.lee@hhs.gov>; La</scott.lee@hhs.gov>	arry G < PadgetLG@state.gov>; Ryan Morhard
<ryan, morhard@weforus<="" th=""><th>m.org>; Steven Jt(tCHFStDPH)</th></ryan,>	m.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; t</steven.stack@ky.gov>	Jerome (HHS/OASH)
<jerome.adams@hhs.gov< p=""></jerome.adams@hhs.gov<>	y>; DC < jessica.fantinato@usda.gov>; DC
<michelle.colby@usda.go< td=""><td>v>; danny.shiau@usuhs.edu</td></michelle.colby@usda.go<>	v>; danny.shiau@usuhs.edu
<danny.shiau@usuhs.edu< td=""><td>>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></td></danny.shiau@usuhs.edu<>	>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org>
richard.hunt@hhs.gov <ri< td=""><td>chard.hunt@hhs.gov>; Eva Lee</td></ri<>	chard.hunt@hhs.gov>; Eva Lee
(h)/6)	>; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Subject: RE: Red Dawn I	Rising Start Feb 29

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me

https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO
<Robert_Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick_Bright@hhs.gov>

Sent Date: 2020/03/04 18:19:47

Delivered Date: 2020/03/04 18:19:48

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To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 07:30:21
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Carter N	Necher <cmecher@charter.net></cmecher@charter.net>
Sent: Wednesd	day, March 4, 2020 6:10 AM
To: Tracey Mcl	Namara <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
Eva Lee √b)/6	<u> </u>
Cc: THOMAS <	THOMAS.WILKINSON@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu>
<james.lawlere< td=""><td>@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></td></james.lawlere<>	@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
<dmarcozzi@s< td=""><td>som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></td></dmarcozzi@s<>	som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
<charity.dean< td=""><td>@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu></td></charity.dean<>	@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu>
Walters, Willia	m (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
(h)(6)	Dodgen, Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4/h)/61 >; Lisa Koonin √(b)(6) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) (USDA.GOV) </p Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Lee <evalee-gatech@pm.me>

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?



Image

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William;

CAMERON; (NAVA)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR);

Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED;

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR);

David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH);

tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

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From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency

preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount
 of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- 3. If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- The Ministry of Defence will provide support as needed

- 5. There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

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From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (ALVEN) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Userome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON (DS/ASPR/SPPR); Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH);

Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; [hv6] Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=lwAR1mBA6yW0sR kebFJsGbGlwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug. Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net> Sent: Tuesday, March 03, 2020 2:27 AM To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (h)/6) Cc: THOMAS <THOMAS, WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>VAVEN Daniel (OS/ASPR/SPPR) < Daniel Dodgen@hhs.gov >; Kristin (OS/ASPR/SPPR) < Kristin DeBord@hhs.gov >; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) ; Lisa Koonin (b)(6) <(b)(6) <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; [wleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David < david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA

<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h) (6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR);

Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED;

jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR);

David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net> Sent: 03 March 2020 03:59 To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee (b)(6) Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;(b)(6) ; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) √hV6\ 7; Lisa Koonin T: MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT 4/h)/6) <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; Liva Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher < cmecher@charte	r.net>	
Sent: Monday, March 02, 2020 11:45 AM	M	
To: Dr. Eva Lee (h)(6)	; Tracey McNamara <tm< td=""><td>cNamara@westernu.edu></td></tm<>	cNamara@westernu.edu>
Cc: THOMAS < THOMAS.WILKINSON@ho	.dhs.gov>; M.D. < MVCALLAHAN	N@mgh.harvard.edu>; James V
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<charity.dean@cdph.ca.gov>; Ralph S <</charity.dean@cdph.ca.gov>	rbaric@email.unc.edu>; Richard	d Hatchett
<ri>richard.hatchett@cepi.net>; Gregory J</ri>	<martingj@state.gov>; William</martingj@state.gov>	< WaltersWA2@state.gov >;
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<robert_johnson@hhs.gov>; Kevin <kev< td=""><td>in.yeskey@hhs.gov>; Gary (OS/</td><td>ASPR/BARDA)</td></kev<></robert_johnson@hhs.gov>	in.yeskey@hhs.gov>; Gary (OS/	ASPR/BARDA)
<gary.disbrow@hhs.gov>; John (OS/ASI</gary.disbrow@hhs.gov>	PR/SPPR) < John.Redd@hhs.gov	; David (Chris) (OS/ASPR/IO)
< <u>David.Hassell@hhs.gov</u> >; Joseph (OS/A	SPR/IO) < Joseph. Hamel@hhs.go	ov>; Luciana < <u>LBorio@iqt.org</u> >;
Dan < DHanfling@iqt.org>; Eric (San Dieg	go County) < Eric.McDonald@sde	county.ca.gov>; David
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SANGEETA < sangeeta.kaushik@hq.dhs.s	zov>; Scott < <u>Scott.Lee@hhs.gov</u>	>; Larry G
<padgetlg@state.gov>; Ryan Morhard ·</padgetlg@state.gov>	<ryan.morhard@weforum.org></ryan.morhard@weforum.org>	; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/0</steven.stack@ky.gov>	OASH) < Jerome. Adams@hhs.go	v>; DC
<pre><jessica.fantinato@usda.gov>; DC <mich< pre=""></mich<></jessica.fantinato@usda.gov></pre>	nelle.colby@usda.gov>; danny.s	hiau@usuhs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.</dshiau@cghe.org>	gov; Dr. Eva K Lee <evalee-gated< td=""><td>ch@pm.me></td></evalee-gated<>	ch@pm.me>
Subject: RE: Red Dawn Rising Start Feb 2	29	

6 deaths in Seattle Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; https://doi.org/10.1007/j. Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities — those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara tmcNamara@westernu.edu>wrote: https://protect2.fireeye.com/url?k=1ad30a7b-46872350-1ad33b44-0cc47a6d17cc-3d6cf14f227efdec&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

Get Outlook for Android

From: Dr. Eva Lee (b)(6)

Sent: Monday, March 2, 2020 7:45:51 AM

To: THOMAS <th< th=""><th>HOMAS.WILKINSON@hq.dhs.gov>; M.D.</th></th<>	HOMAS.WILKINSON@hq.dhs.gov>; M.D.
	@mgh.harvard.edu>; Tracey McNamara <tmcnamara@westernu.edu>;</tmcnamara@westernu.edu>
	lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
	m.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity</tom.bossert@me.com>
	ty.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard</rbaric@email.unc.edu>
	d.hatchett@cepi.net>; Gregory J <martingj@state.gov>; William</martingj@state.gov>
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	@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally</kristin.debord@hhs.gov>
	<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>
(h)(e)	; Lisa Koonin (Church); MELISSA
	@hq.dhs.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov>
	man@hq.dhs.gov>; MARIEFRED
	s@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>;</jwleduc@utmb.edu>
	R/BARDA) <robert.johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>;</kevin.yeskey@hhs.gov></robert.johnson@hhs.gov>
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	oseph.Hamel@hhs.gov>; Luciana <lborio@iqt.org>; Dan</lborio@iqt.org>
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	nik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>
	te.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven</ryan.morhard@weforum.org>
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	@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov>
	@usda.gov>; danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>;</danny.shiau@usuhs.edu>
	hiau@cghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva</richard.hunt@hhs.gov>
ee (h)/A)	>; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
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We need actions	s, actions, actions and more actions. We are going to have pockets of
	is this country, West coast, East coast and the South. Our policy leaders
must act now. Pl	lease make it happen!
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	isye.gatech.edu/DrLee/
mobile:(b)(6)	The state of the s
h)(6)	

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306878740A4A60745E2-JOHNSON, RO
<Robert_Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick_Bright@hhs.gov>

Sent Date: 2020/03/04 07:30:20

Delivered Date: 2020/03/04 07:30:21

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 19:19:32
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Richard Hatchett <richard.hatchett@cepi.net>
Sent: Wednesday, March 4, 2020 6:20 PM

To: Carter Mecher <cmecher@charter.net>; Dr. Eva K Lee <evalee-gatech@pm.me>
Cc: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee

(b)(6)

; THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V </br>
/ James.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David
Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6)

; Dodgen, Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Phillips</kristin.debord@hhs.gov>	, Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>;</sally.phillips@hhs.gov>
Matthew J CIV USARMY (USA) (b)(6)	; Lisa Koonin (h)(h)
MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Heri alexander.eastman@hq.dhs.gov; MARIEFRED <mari jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BAR (OS/ASPR/IO) <kevin.yeskey@hhs.gov>; Disbrow, Ga Redd, John (OS/ASPR/SPPR) <john.redd@hhs.gov>;</john.redd@hhs.gov></kevin.yeskey@hhs.gov></mari </melissa.harvey@hq.dhs.gov>	efred.evans@associates.hq.dhs.gov>; RDA) <robert.johnson@hhs.gov>; Yeskey, Kevin ary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>;</gary.disbrow@hhs.gov></robert.johnson@hhs.gov>
<david.hassell@hhs.gov>; Hamel, Joseph (OS/ASPR, <lborio@iqt.org>; Dan <dhanfling@iqt.org>; eric.m <david.wade@hq.dhs.gov>; david.a.tarantino@cbp. <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASR <padgetlg@state.gov>; Ryan Morhard <ryan.morh< p=""> <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) (USDA.GOV) <jessica.fantinato@usda.gov>; DC <micdanny <dshiau@cghe.org="" shiau="">; Hunt, Richard (OS, Subject: RE: Red Dawn Rising Start Feb 29</micdanny></jessica.fantinato@usda.gov></steven.stack@ky.gov></ryan.morh<></padgetlg@state.gov></sangeeta.kaushik@hq.dhs.gov></david.wade@hq.dhs.gov></dhanfling@iqt.org></lborio@iqt.org></david.hassell@hhs.gov>	/IO) <joseph.hamel@hhs.gov>; Luciana cdonald@sdcounty.ca.gov; David dhs.gov; david.gruber@dshs.texas.gov; SANGEETA PR/EMMO) <scott.lee@hhs.gov>; Larry G ard@weforum.org>; Steven Jt(tCHFStDPH) I) <jerome.adams@hhs.gov>; Fantinato, Jessica chelle.colby@usda.gov>; danny.shiau@usuhs.edu;</jerome.adams@hhs.gov></scott.lee@hhs.gov></joseph.hamel@hhs.gov>

For those who don't have time to review the article it predicted

]Without NPIs, the number of COVID-19 cases would likely have shown a 67-fold increase (IQR: 44 - 94), with the effectiveness of different interventions varying. The early detection and isolation of cases was estimated to prevent more infections than travel restrictions and contact reductions, but integrated NPIs would achieve the strongest and most rapid effect. If NPIs could have been conducted one week, two weeks, or three weeks earlier in China, cases could have been reduced by 66%, 86%, and 95%, respectively, together with significantly reducing the number of affected areas.

This is a critically important observation, fully aligned with theory.

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From: Carter Mecher <cmecher@charter.net>
Sent: 04 March 2020 21:52
To: Dr. Eva K Lee <evalee-gatech@pm.me>
Cc: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.
Eva Lee ((b)(6)
                                 ; THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>;
CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6) ; Daniel (OS/ASPR/SPPR)
<Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) ₹/b)(6)
                                                                               : Lisa Koonin
(h)(6)
                    MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT
<HERBERT,WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)
<Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)
<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>;
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Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Uerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

And an article that Nathaniel shared that suggests that what happened in Wuhan was mitigated (get your head around that). If that was mitigated, think of what an unmitigated outbreak might look like. https://www.worldpop.org/resources/docs/COVID_NPI/WorldPop_COVID-19_outbreak.pdf

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:50 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

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Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);

Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Resending Richard's note below and links to articles (we don't need to get fancy, we need to do what works):

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

Sent from Mail for Windows 10

From: Carter Mecher

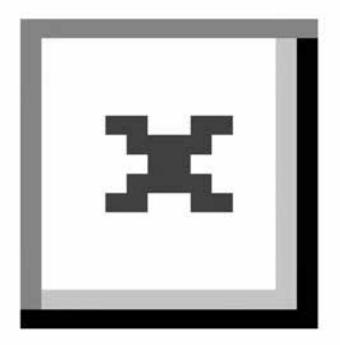
Sent: Wednesday, March 4, 2020 4:43 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom
Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; M.D.; James V; Duane; David; Tom
[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
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Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Pasted Washington guidance below. This will not reduce community transmission (not enough). Protective sequestration.



Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 4:09 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

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Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov Subject: RE: Red Dawn Rising Start Feb 29

What if the players get sick (with covid-19)? So that would become a big scandals on government's decision.

I think it is better for us (in the US) to think that it is a new infectious disease and we don't have any cure nor MCM nor much kmowledge. Let's be cautious and nail it early by putting in precautionary NPI and various steps so that we feel good about being a step ahead of the virus, instead of chasing after it as in Italy, S. Korea. It is again a good time to test how well we can rally business to do the same. I don't see how the government leaders have anything to lose to put in the appropriate measures now.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: VENCE
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 2:57 PM, Carter Mecher < cmecher@charter.net > wrote:
Look at the desperation in Italy.
Italian government orders all sporting events to take place without fans until April 3 due to coronavirus
Italy is considering to put more towns in northern Italy on lockdown due to coronavirus
Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:36 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

Daniel

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);

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Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

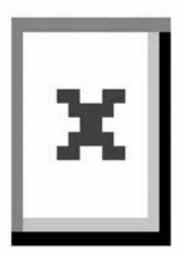
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.



Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; M.D.; James V; Duane; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON (h)/61

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);
Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);
Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. if not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile:(b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 7:44 AM, Carter Mecher < cmecher@charter.net > wrote:

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM

Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Ce: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Losa Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (6) Daniel (OS/ASPR/SPPR); Kristin
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richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
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richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said. The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (60/6)]; Daniel (OS/ASPR/SPPR); Kristin
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Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 03, 2020 2:27 AM
To: Richard Hatchett < richard.hatchett@cepi.net>; Tracey McNamara
<tmcNamara@westernu.edu>; Dr. Eva Lee <(b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William
<WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;
                   Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin
(b)(6)
(OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                             7; Lisa Koonin (b)(6)
                                                               >: MELISSA
Th/61
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
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Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNa	mara <tmcnamara@westernu.edu>; Dr. Eva Lee</tmcnamara@westernu.edu>	
(b)(6)		
Ce: THOMAS <	HOMAS.WILKINSON@hq.dhs.gov>; M.D.	
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<rbaric@email.ur< td=""><td>c.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory</richard.hatchett@cepi.net></td><td>y J</td></rbaric@email.ur<>	c.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory</richard.hatchett@cepi.net>	y J
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<sangeeta.kaushi< td=""><td>@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></td><td></td></sangeeta.kaushi<>	@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>	
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<jessica.fantinato< td=""><td>@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@u</michelle.colby@usda.gov></td><td>suhs.edu;</td></jessica.fantinato<>	@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@u</michelle.colby@usda.gov>	suhs.edu;
Danny Shiau <ds< td=""><td>iau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evale< td=""><td><u>&</u></td></evale<></td></ds<>	iau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evale< td=""><td><u>&</u></td></evale<>	<u>&</u>
gatech@pm.me>		

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-trackcoronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee (h)(6) : Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>Vb)(6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) Lisa Koonin (b)(6) >: MELISSA \$\b)(6) <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <a href="mailto: <a href="mailt <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric

(San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 20	20 at 11:58 AM D	Eva Lee Vhiles	>wrote:
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Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=cd320c96-916615ea-cd323da9-0cc47adc5fa2-6558435b29c16209&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (b)(6)
Sent: Monday, March 2, 2020 7:45:51 AM
To: THOMAS <thomas, wilkinson@hq.dhs.gov="">; M.D.</thomas,>
<mvcallahan@mgh.harvard.edu>; Tracey McNamara</mvcallahan@mgh.harvard.edu>
<tmcnamara@westernu.edu>; James V <james.lawler@unmc.edu>;</james.lawler@unmc.edu></tmcnamara@westernu.edu>
Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
Suance squance and supplied the squance of the s
<tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@email.unc.edu</u> >; Richard
Hatchett < <u>richard.hatchett@cepi.net</u> >; Gregory J < <u>MartinGJ@state.gov</u> >;
William < WaltersWA2@state.gov >; CAMERON
<a h<="" td="">
(b)(6) Daniel (OS/ASPR/SPPR)
< <u>Daniel.Dodgen@hhs.gov</u> >; Kristin (OS/ASPR/SPPR)
<kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov>
< <u>Sally.Phillips@hhs.gov</u> >; Matthew J CIV USARMY (USA)
(b)(6) ; Lisa Koonin
(b)(6) ; MELISSA < melissa.harvey@hq.dhs.gov >;
HERBERT < HERBERT.WOLFE@hq.dhs.gov >; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED</alexander.eastman@hq.dhs.gov>
<mariefred,evans@associates.hq.dhs.gov>; jwleduc@utmb.edu</mariefred,evans@associates.hq.dhs.gov>
<jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)</jwleduc@utmb.edu>
< <u>Robert.Johnson@hhs.gov</u> >; Kevin < <u>kevin.yeskey@hhs.gov</u> >; Gary
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<john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov>
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<joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>; Dan</lborio@iqt.org></joseph.hamel@hhs.gov>
<dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org>
<eric.mcdonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>;</david.wade@hq.dhs.gov></eric.mcdonald@sdcounty.ca.gov>
DAVID A david.a.tarantino@cbp.dhs.gov ;
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;</david.gruber@dshs.texas.gov>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott</sangeeta.kaushik@hq.dhs.gov>
<scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan Morhard</padgetlg@state.gov></scott.lee@hhs.gov>
<ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org>
<steven.stack@ky.gov>; tJerome (HHS/OASH)</steven.stack@ky.gov>
<jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu</michelle.colby@usda.gov>
danny.shiau@usuhs.edu ; Danny Shiau dshiau@cghe.org ;
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov>
Thurs ; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Subject: RE: Red Dawn Rising Start Feb 29
Subjects Res. Red Dawn Rising Start Feb 27

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm	.me_
https://newton.isye.	gatech.edu/DrLee/
mobile: (b)(6)	
(b)(6)	

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306878740A4A60745E2-JOHNSON, RO
<Robert_Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Sent Date: 2020/03/04 19:19:30

Delivered Date: 2020/03/04 19:19:32

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO
<Robert_Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Subject: FW: Red Dawn Rising Start Feb 29

Date: 2020/03/03 21:08:50

Priority: Normal

Type: Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell(b)(6)

email: Robert.Johnson@HHS.gov

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From: Marcozzi, David <DMarcozzi@som.umaryland.edu>

Sent: Tuesday, March 3, 2020 8:17 PM

To: Dr. Eva K Lee <evalee-gatech@pm.me>; alexander.eastman@hq.dhs.gov

Cc: Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Carter Mecher <cmecher@charter.net>;
Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr.

Eva Lee {(b)(6)} ; WILKINSON, THOMAS <THOMAS.WILKINSON@hq.dhs.gov>;
M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Tom Bossert

<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; Walters, William (STATE.GOV)
<walterswa2@state.gov>; HAMILTON, CAMERON <cameron.hamilton@hq.dhs.gov>;

b)(6)	Dodgen, Daniel (OS/ASPR/SPPR	R) <daniel.dodgen@hhs.gov>; DeBord, Kristin</daniel.dodgen@hhs.gov>
(OS/ASPR/S	PPR) <kristin.debord@hhs.gov>; Phillips,</kristin.debord@hhs.gov>	Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>;</sally.phillips@hhs.gov>
Matthew J (CIV USARMY (USA) < h\/6\	>; Lisa Koonin ⟨►\VE\ ;
HARVEY, M	ELISSA <melissa.harvey@hq.dhs.gov>; W</melissa.harvey@hq.dhs.gov>	olfe, Herbert (DHS.GOV)
<herbert.we< td=""><td>olfe@hq.dhs.gov>; EVANS, MARIEFRED <</td><td>mariefred.evans@associates.hq.dhs.gov>;</td></herbert.we<>	olfe@hq.dhs.gov>; EVANS, MARIEFRED <	mariefred.evans@associates.hq.dhs.gov>;
jwleduc@ut	tmb.edu; Johnson, Robert (OS/ASPR/BAR	DA) <robert.johnson@hhs.gov>; Yeskey, Kevin</robert.johnson@hhs.gov>
(OS/ASPR/II	O) <kevin.yeskey@hhs.gov>; Disbrow, Ga</kevin.yeskey@hhs.gov>	ry (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>;</gary.disbrow@hhs.gov>
Redd, John	(OS/ASPR/SPPR) < John.Redd@hhs.gov>;	Hassell, David (Chris) (OS/ASPR/IO)
<david.hass< td=""><td>sell@hhs.gov>; Hamel, Joseph (OS/ASPR/</td><td>IO) <joseph.hamel@hhs.gov>; Luciana</joseph.hamel@hhs.gov></td></david.hass<>	sell@hhs.gov>; Hamel, Joseph (OS/ASPR/	IO) <joseph.hamel@hhs.gov>; Luciana</joseph.hamel@hhs.gov>
<lborio@iq< td=""><td>t.org>; Dan <dhanfling@iqt.org>; eric.mo</dhanfling@iqt.org></td><td>donald@sdcounty.ca.gov; Wade, David</td></lborio@iq<>	t.org>; Dan <dhanfling@iqt.org>; eric.mo</dhanfling@iqt.org>	donald@sdcounty.ca.gov; Wade, David
<david.wad< td=""><td>e@hq.dhs.gov>; david.a.tarantino@cbp.o</td><td>dhs.gov; david.gruber@dshs.texas.gov; KAUSHIK,</td></david.wad<>	e@hq.dhs.gov>; david.a.tarantino@cbp.o	dhs.gov; david.gruber@dshs.texas.gov; KAUSHIK,
SANGEETA -	<sangeeta.kaushik@hq.dhs.gov>; Lee, So</sangeeta.kaushik@hq.dhs.gov>	ott (OS/ASPR/EMMO) <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>
<padgetlg(< td=""><td>@state.gov>; Ryan Morhard <ryan.morha< td=""><td>ard@weforum.org>; Steven Jt(tCHFStDPH)</td></ryan.morha<></td></padgetlg(<>	@state.gov>; Ryan Morhard <ryan.morha< td=""><td>ard@weforum.org>; Steven Jt(tCHFStDPH)</td></ryan.morha<>	ard@weforum.org>; Steven Jt(tCHFStDPH)
<steven.sta< td=""><td>ck@ky.gov>; Adams, Jerome (HHS/OASH</td><td><jerome.adams@hhs.gov>; Fantinato, Jessica</jerome.adams@hhs.gov></td></steven.sta<>	ck@ky.gov>; Adams, Jerome (HHS/OASH	<jerome.adams@hhs.gov>; Fantinato, Jessica</jerome.adams@hhs.gov>
(USDA.GOV) <jessica.fantinato@usda.gov>; DC <mic< td=""><td>helle.colby@usda.gov>; danny.shiau@usuhs.edu;</td></mic<></jessica.fantinato@usda.gov>	helle.colby@usda.gov>; danny.shiau@usuhs.edu;
Hunt, Richa	rd (OS/ASPR/EMMO) <richard.hunt@hh< td=""><td>s.gov>; Jolly, Brantley (OS/ASPR/EMMO) (CTR)</td></richard.hunt@hh<>	s.gov>; Jolly, Brantley (OS/ASPR/EMMO) (CTR)
<brantley.jo< td=""><td>olly@hhs.gov>; Cordts, Jerome (CTR) <jer< td=""><td>ome.cordts@associates.hq.dhs.gov>; Mansoura,</td></jer<></td></brantley.jo<>	olly@hhs.gov>; Cordts, Jerome (CTR) <jer< td=""><td>ome.cordts@associates.hq.dhs.gov>; Mansoura,</td></jer<>	ome.cordts@associates.hq.dhs.gov>; Mansoura,
Monique K.	<mmansoura@mitre.org></mmansoura@mitre.org>	

Subject: Re: Red Dawn Rising Start Feb 29

Great idea Eva. Have them come in for a 'to-go' lunch and leave.

Parental loss of work will be an issue.... Encouraging telework will be key.

Respectfully,

David Marcozzi, MD, MHS-CL, FACEP Associate Professor Associate Chair of Population Health Department of Emergency Medicine University of Maryland School of Medicine https://em.umaryland.edu

Associate Professor Department of Epidemiology and Public Health University of Maryland School of Medicine https://www.medschool.umaryland.edu/epidemiology/

Assistant Chief Medical Officer for Acute Care University of Maryland Medical Center http://www.umm.edu

Deputy Medical Director for Mobile Integrated Health/Community Paramedicine
Baltimore City Fire Department
https://fire.baltimorecity.gov/mobile-integrated-health-community-paramedicine

Mailing Address: 6th floor, Suite 200 110 South Paca Street Baltimore, Maryland 21201 (667)-214-2208 (office)

DMarcozzi@som.umaryland.edu

Take time to deliberate; but when the time for action arrives, stop thinking and go in, President Andrew Jackson

From: "Dr. Eva K Lee" <evalee-gatech@pm.me> Reply-To: "Dr. Eva K Lee" <evalee-gatech@pm.me> Date: Tuesday, March 3, 2020 at 17:39 To: "Eastman, Alexander" <alexander.eastman@hq.dhs.gov> Cc: Duane Caneva <duane.caneva@hg.dhs.gov>, David Marcozzi <DMarcozzi@som.umaryland.edu>, Carter Mecher <cmecher@charter.net>, Tracey McNamara <tmcNamara@westernu.edu>, Richard Hatchett <richard.hatchett@cepi.net>, "Dr. Eva Lee" , "WILKINSON, THOMAS" <THOMAS.WILKINSON@hq.dhs.gov>, <(b)(6) "mvcallahan@mgh.harvard.edu" <MVCALLAHAN@mgh.harvard.edu>, James Lawler <james.lawler@unmc.edu>, Tom Bossert <tom.bossert@me.com>, "Charity A@CDPH" <Charity.Dean@cdph.ca.gov>, Ralph S <rbaric@email.unc.edu>, Gregory J <MartinGJ@state.gov>, William <WaltersWA2@state.gov>, "HAMILTON, CAMERON" <(b)(6) <cameron.hamilton@hq.dhs.gov>, "(h)(6) (OS/ASPR/SPPR)" <Daniel.Dodgen@hhs.gov>, "Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "Sally (OS/ASPR/SPPR)" <Sally.Phillips@hhs.gov>, "matthew. hepburn" <(b)(6) Lisa Koonin (b)(6) MELISSA" <melissa.harvey@hq.dhs.gov>, "WOLFE, HERBERT" <HERBERT.WOLFE@hq.dhs.gov>, "EVANS, MARIEFRED" <mariefred.evans@associates.hq.dhs.gov>, "jwleduc@utmb.edu" <jwleduc@utmb.edu>, "Robert (OS/ASPR/BARDA)" <Robert.Johnson@hhs.gov>, Kevin Yeskey <kevin.yeskey@hhs.gov>, "Gary (OS/ASPR/BARDA)" <Gary.Disbrow@hhs.gov>, "John (OS/ASPR/SPPR)" < John.Redd@hhs.gov >, "David (Chris) (OS/ASPR/IO)" <David.Hassell@hhs.gov>, "Joseph (OS/ASPR/IO)" <Joseph.Hamel@hhs.gov>, Luciana <LBorio@iqt.org>, Dan <DHanfling@iqt.org>, "Eric (San Diego County)" <<u>Eric.McDonald@sdcounty.ca.gov</u>>, "Wade, David" <<u>david.wade@hq.dhs.gov</u>>, "TARANTINO, DAVID A" <david.a.tarantino@cbp.dhs.gov>, "david.gruber@dshs.texas.gov" <david.gruber@dshs.texas.gov>, "KAUSHIK, SANGEETA" <sangeeta.kaushik@hq.dhs.gov>, Scott <Scott.Lee@hhs.gov>, Larry G <PadgetLG@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Jt(tCHFStDPH)" <steven.stack@ky.gov>, "tJerome (HHS/OASH)" < Jerome.Adams@hhs.gov>, DC < jessica.fantinato@usda.gov>, DC <michelle.colby@usda.gov>, "danny.shiau@usuhs.edu" <danny.shiau@usuhs.edu>, "richard.hunt@hhs.gov" <richard.hunt@hhs.gov>, "Jolly, Brantley (OS/ASPR/EMMO) (CTR)" <Brantley.Jolly@hhs.gov>, "Cordts, Jerome (CTR)" <jerome.cordts@associates.hq.dhs.gov>, Monique Mansoura <mmansoura@mitre.org> Subject: Re: Red Dawn Rising Start Feb 29

School Closure:

I understand school closure will affect lunches for the under-served. There's logistics that come with it. Perhaps some of these children will continue to come in or there has to be alternatives for them to pick up lunches. (I) We do meals-on-wheels logistics. Can school buses+drivers be deployed to make a round of lunch drop offs for these children?

Telework:

At least tele-work is doable on demand now, by many sectors.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Tuesday, March 3, 2020 4:29 PM, Eastman, Alexander <a leastman@hq.dhs.gov="">wrote
Are we thinking a NEDOCS type dashboard ??

Alexander L. Eastman, MD, MPH, FACS, FAEMS Senior Medical Officer - Operations

Office of the Chief Medical Officer Countering Weapons of Mass Destruction Office U.S. Department of Homeland Security Washington, DC 20528

O: 202-254-5353 C: (b)(6)

Executive Assistant: Nichole Burton nichole.burton2@associates.hq.dhs.gov

A-LAN/NIPR:alexander.eastman@hq.dhs.gov B-LAN/HSDN/SIPR:alexander.eastman@dhs.sgov.gov C-LAN/JWICS: aleastman@dhs.ic.gov (U) Warning: This document is UNCLASSIFIED//FOR OFFICIAL USE ONLY (U//FOUO). It contains information that may be exempt from public release under the Freedom of Information Act

On Mar 3, 2020, at 4:22 PM, Caneva, Duane < duane.caneva@hq.dhs.gov>wrote:

Looking at a project to develop triggers for community mitigation based on proxy data such as ICU cases, deaths, surveillance diagnostics, and gap between ILI presentations with ILI + panels. We have good data from other cities around the world on what their data showed and when they implemented mitigation efforts. We can measure that data in near-real time and use it as objective measure to pull the trigger.

Thoughts?

Subject: Re: Red Dawn Rising Start Feb 29

From: Dr. Eva K Lee <evalee-gatech@pm.me> Sent: Tuesday, March 3, 2020 3:53 PM To: Marcozzi, David <DMarcozzi@som.umaryland.edu> Cc: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee √b)(6) ; WILKINSON, THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Caneva, Duane <duane.caneva@hq.dhs.gov>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; HAMILTON, CAMERON < cameron.hamilton@hq.dhs.gov>; (b)(6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) √h\/6\ ; Lisa Koonin ; HARVEY, MELISSA < melissa.harvey@hq.dhs.gov>; WOLFE, HERBERT <herbert.wolfe@hq.dhs.gov>; Eastman, Alexander <alexander.eastman@hq.dhs.gov>; EVANS, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert_Johnson@hhs.gov>; Yeskey, Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@igt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; Wade, David <david.wade@hq.dhs.gov>; TARANTINO, DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; KAUSHIK, SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott_Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov

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Yes, we ought to act now. Ok, I know I have been urging this for a long time. I want to cover a few items discussed here:

1. Social distancing, NPI can deter the spread

Singapore and Hong Kong prove that without any definitive treatment, and absence of any prophylactic MCM protection, closing schools, home-office business can make a huge difference. I ran a few models for school closure and business tele-work for Santa Clara, King County and I want to share some graphs here.

Santa Clara: One positive case on Jan 31. I look at closing school as of today, and tele-work by -0.5 million workers. We can see the rapid decrease of spreading. I also contrast the results if we close a week from now, or two weeks from now.

Please note, the parameters need not be perfect. The idea is to contrast how NPI can work very effectively and we MUST act now and make it a success.

<image001.jpg>

2. Quarantine a city?

I believe there's a contingency plan (I did recall working with National Guard on it) where we will quarantine everyone inside a city if there's a severe disease spread. It is like what China did for Wuhan. With MCM, we can give citizens MCM before they leave. There is no MCM now.

While one can argue a federal quarantine and total lock down of a city is more effective, I think Lu's comment is on-point. We cannot expect perfect participation. Everyone is going to make a decision. If we can contain 80% of the people's movement (as in Hong Kong and Singapore, or in the Santa Clara model above), you can see that we are stopping the spread. Clearly, those who get out of the city might very well be infected and sow a seed to other places. Yes, we probably

need to think harder what to do. The NPI of closing schools and tele-work in a sense is volunteering quarantine. It can work beautifully, and very effectively. Note that Hong Kong has only limited transportation ban. The citizens and the healthcare workers protest to close the border, but the border wasn't closed. So the effort is volunteering quarantine of their own residents and then quarantine for everyone who enters the city. Together, it puts a brake on the spread. It is right to do it now.

3. King County Seattle

True to the form of the COVID-19 and the mortality of elderly, which is 1.3%, 3.6%, 8^ and 14.8% from 50 years owards, for every 10 year age bracket. So we see the very high mortality of the nursing home. Although I know next to nothing about what's going on in China, these figures seem to be a good guiding point for us.

What troubles me about the spread is that it is almost like by-the-book. We got school teacher get infected, nursing home, a very sick patient in ICU (healthcare workers got quarantine),.. you see where we are heading, every vulnerable population is hit.

4. Limited Transportation Ban

So last week, I wrote that we need to include New York and Atlanta in the screening. Bad enough this week we have cases in these cities. I do think we need to step up in reducing the South Korean flights into the US. Hong Kong uses brand-new public estates to quarantine the incoming travelers from high-risk regions. It is a luxury that we do not have. Here, we must figure out an effective quarantine for these entering visitors or returning citizens. Maybe it is time to stop visitors from S Korea and Italy. It is just temporary. So we can focus on handling citizens coming back. We need to let them in. Cannot leave them outside their own country.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Tuesday, March 3, 2020 1:56 PM, Marcozzi, David DMarcozzi@som.umaryland.edu >wrote:
Act. Now.
Respectfully,
David Marcozzi, MD, MHS-CL, FACEP
Associate Professor
Director of Population Health

Department of Emergency Medicine

University of Maryland School of Medicine

https://em.umaryland.edu

Associate Professor

Department of Epidemiology and Public Health

University of Maryland School of Medicine

http://www.medschool.umaryland.edu/programs/disparities/

Assistant Chief Medical Officer for Acute Care

University of Maryland Medical Center

http://www.umm.edu

Deputy Medical Director

Baltimore City Fire Department

https://protect2.fireeye.com/url?k=1cef5956-40bb707d-1cef6869-0cc47a6d17cc-3b87be0eb96713bf&u=https://fire.baltimorecity.gov/

Mailing Address:

6th floor, Suite 200

110 South Paca Street

Baltimore, Maryland 21201

410-328-8025 (office)

410-328-8028 (fax)

dmarcozzi@em.umaryland.edu

Take time to deliberate; but when the time for action arrives, stop thinking and go in. -President Andrew Jackson

From: Carter Mecher <cmecher@charter.net> Date: Tuesday, March 3, 2020 at 1:54 PM To: Tracey McNamara <tmcNamara@westernu.edu>, Richard Hatchett <ri>richard.hatchett@cepi.net>, "Dr. Eva Lee" </ri> Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>, "mvcallahan@mgh.harvard.edu" <MVCALLAHAN@mgh.harvard.edu>, James Lawler <james.lawler@unmc.edu>, Duane Caneva <duane.caneva@hq.dhs.gov>, David Marcozzi <DMarcozzi@som.umarvland.edu>, Tom Bossert <tom.bossert@me.com>, "Charity A@CDPH" <Charity.Dean@cdph.ca.gov>, Ralph S <rbaric@email.unc.edu>, Gregory J <MartinGJ@state.gov>, William <WaltersWA2@state.gov>, CAMERON <cameron.hamilton@hq.dhs.gov>, (b)(6) . "Daniel (OS/ASPR/SPPR)" (b)(6)<Daniel.Dodgen@hhs.gov>, "Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "Sally (OS/ASPR/SPPR)" < Sally.Phillips@hhs.gov>, "matthew. hepburn" . Lisa Koonin (b)(6) >, MELISSA SUNIGY <melissa,harvey@hq.dhs.gov>, HERBERT <HERBERT,WOLFE@hq.dhs.gov>, Alexander <alexander.eastman@hq.dhs.gov>, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>, "jwleduc@utmb.edu" <jwleduc@utmb.edu>, "Robert (OS/ASPR/BARDA)" <Robert.Johnson@hhs.gov>, Kevin Yeskey <kevin.yeskey@hhs.gov>, "Gary (OS/ASPR/BARDA)" <Gary.Disbrow@hhs.gov>, "John (OS/ASPR/SPPR)" <John.Redd@hhs.gov>, "David (Chris) (OS/ASPR/IO)" <David.Hassell@hhs.gov>, "Joseph (OS/ASPR/IO)" <Joseph, Hamel@hhs.gov>, Luciana <LBorio@igt.org>, Dan <DHanfling@iqt.org>, "Eric (San Diego County)" <Eric.McDonald@sdcounty.ca.gov>, David <david.wade@hq.dhs.gov>, DAVID A <david.a.tarantino@cbp.dhs.gov>, "david.gruber@dshs.texas.gov" <david.gruber@dshs.texas.gov>, SANGEETA <sangeeta.kaushik@hq.dhs.gov>, Scott <Scott.Lee@hhs.gov>, Larry G <PadgetLG@state.gov>, Ryan Morhard <Rvan.Morhard@weforum.org>, "Steven Jt(tCHFStDPH)" <steven.stack@ky.gov>, "tJerome (HHS/OASH)" <Jerome.Adams@hhs.gov>, DC <jessica.fantinato@usda.gov>, DC <michelle.colby@usda.gov>, "danny.shiau@usuhs.edu" <danny.shiau@usuhs.edu>, Danny Shiau <dshiau@cghe.org>, "richard.hunt@hhs.gov" <ri>crichard.hunt@hhs.gov>, "Dr. Eva K Lee" <evalee-gatech@pm.me></ri> Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Matthew J; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctorsays?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

From: Carter Mecher <cmecher@charter.net>

Sent: Tuesday, March 03, 2020 2:27 AM

To: Richard Hatchett < richard.hatchett@cepi.net >; Tracey McNamara

<tmcNamara@westernu.edu>; Dr. Eva Lee \(\frac{1}{2}\)b)(6)

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Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William
<WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;
riglassir@gmail.com; Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin
(OS/ASPR/SPPR) < Kristin, DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                                                              >: MELISSA
                            : Lisa Koonin (b)(6)
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
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Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- 5. Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; [h)(6)]; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara < tmcNamara@westernu.edu>; Dr. Eva Lee < eva.evalee.lee64@gmail.com>

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.

- <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
- ; David DMarcozzi@som.umaryland.edu; Tom Bossert
- <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
- <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J
- <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON
- <cameron.hamilton@hq.dhs.gov>; (b)(6)
 Daniel (OS/ASPR/SPPR)
- <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally

(OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)

- ₹b)(6) ; Lisa Koonin ₹(b)(6) ; MELISSA
- <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
- <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
- iwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin
- <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John

(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)

- <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
- <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
- <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
- <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
- <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
- <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
-) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3

weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMe2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- 3. Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net>

Sent: Monday, March 02, 2020 11:45 AM

To: Dr. Eva Lee <(b)(6)

>; Tracey McNamara

<tmcNamara@westernu.edu>

Cc: THOMAS < THOM	AS.WILKINSON@hq.dhs.gov>; M.D.
<mvcallahan@mg< th=""><th>h.harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu></th></mvcallahan@mg<>	h.harvard.edu>; James V <james.lawler@unmc.edu>; Duane</james.lawler@unmc.edu>
<duane.caneva@hq.dhs.< th=""><th>gov>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu></th></duane.caneva@hq.dhs.<>	gov>; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>
<tom.bossert@me.com></tom.bossert@me.com>	; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu></rbaric@email.unc.edu>	; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J</richard.hatchett@cepi.net>
the state of the s	William <walterswa2@state.gov>; CAMERON</walterswa2@state.gov>
<cameron.hamilton@hg< th=""><th>[10] [10] [10] [10] [10] [10] [10] [10]</th></cameron.hamilton@hg<>	[10] [10] [10] [10] [10] [10] [10] [10]
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	y.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
√(b)(6)	; Lisa Koonin (b)(6) >; MELISSA
	s.gov>; HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov>
	dhs.gov>; MARIEFRED < mariefred.evans@associates.hq.dhs.gov>;
- particular in the control of the c	bert (OS/ASPR/BARDA) < Robert Johnson@hhs.gov>; Kevin
	/>; Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John
	n.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
	v>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana</joseph.hamel@hhs.gov>
	<dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org>
	unty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A</david.wade@hq.dhs.gov>
	.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
	dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov>
with a second of the control of the	; Ryan Morhard <ryan, morhard@weforum.org="">; Steven Jt(tCHFStDPH</ryan,>
	>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov>
	.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;</michelle.colby@usda.gov>
	cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-< td=""></evalee-<>
gatech@pm.me>	

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6)

OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee VENCES wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities — those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage

private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote:

https://protect2.fireeye.com/url?k=d6e574d4-8ab15dff-d6e545eb-0cc47a6d17cc-892c6ef99fb156cf&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee (KN/K) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;/by/6) >: Daniel (b)(6) (OS/ASPR/SPPR) < Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4/b)(6) ; Lisa Koonin (b)(6) >; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <iwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert, Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david,wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott

<Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me

https://newton.isye.gatech.edu/DrLee/

mobile: 404-432-6835

(b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO

<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

Recipient: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

Sent Date: 2020/03/03 21:08:49

Delivered Date: 2020/03/03 21:08:50

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
То:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:07:31
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell:(b)(6)

email: Robert.Johnson@HHS.gov

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From: Marcozzi, David <dmarcozzi@som.umaryland.edu></dmarcozzi@som.umaryland.edu>	
Sent: Tuesday, March 3, 2020 1:57 PM	
To: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcnamara@westernu.edu>; Richar</tmcnamara@westernu.edu></cmecher@charter.net>	d
Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee √h)/6)</richard.hatchett@cepi.net>	
Cc: THOMAS <thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James <james.lawler@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <charity.dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>; Walters, William (STATE.GOV)</martingj@state.gov></rbaric@email.unc.edu></charity.dean@cdph.ca.gov></tom.bossert@me.com></duane.caneva@hq.dhs.gov></james.lawler@unmc.edu></mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>	V
<walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (h)(6) Daniel (OS/ASPR/SPPR) <daniel.dodgen@hhs.gov>; DeBord, Kristin (OS/ASPR/SPPR)</daniel.dodgen@hhs.gov></cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>	n,

<kristin.debord@hhs.gov>; Phillips, !</kristin.debord@hhs.gov>	Sally (OS/ASPR/SPPR) <sally.phillips@hhs.g< th=""><th>ov>; Matthew J CIV</th></sally.phillips@hhs.g<>	ov>; Matthew J CIV
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	e, Herbert (DHS.GOV) <herbert.wolfe@hq.< td=""><td>dhs.gov>;</td></herbert.wolfe@hq.<>	dhs.gov>;
alexander.eastman@hq.dhs.gov; MA	RIEFRED <mariefred.evans@associates.hq< td=""><td>.dhs.gov>;</td></mariefred.evans@associates.hq<>	.dhs.gov>;
jwleduc@utmb.edu; Johnson, Robert	t (OS/ASPR/BARDA) <robert.johnson@hhs< td=""><td>.gov>; Yeskey, Kevin</td></robert.johnson@hhs<>	.gov>; Yeskey, Kevin
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Redd, John (OS/ASPR/SPPR) < John. Re	edd@hhs.gov>; Hassell, David (Chris) (OS/	ASPR/IO)
<david.hassell@hhs.gov>; Hamel, Jo</david.hassell@hhs.gov>	seph (OS/ASPR/IO) <joseph.hamel@hhs.g< td=""><td>ov>; Luciana</td></joseph.hamel@hhs.g<>	ov>; Luciana
<lborio@iqt.org>; Dan <dhanfling@< td=""><td>iqt.org>; eric.mcdonald@sdcounty.ca.gov;</td><td>David</td></dhanfling@<></lborio@iqt.org>	iqt.org>; eric.mcdonald@sdcounty.ca.gov;	David
<david.wade@hq.dhs.gov>; david.a.t</david.wade@hq.dhs.gov>	arantino@cbp.dhs.gov; david.gruber@dsh	is.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Lee</sangeeta.kaushik@hq.dhs.gov>	e, Scott (OS/ASPR/EMMO) <scott.lee@hhs< td=""><td>s.gov>; Larry G</td></scott.lee@hhs<>	s.gov>; Larry G
<padgetlg@state.gov>; Ryan Morha</padgetlg@state.gov>	rd <ryan.morhard@weforum.org>; Stever</ryan.morhard@weforum.org>	t(tCHFStDPH)
<steven.stack@ky.gov>; Adams, Jero</steven.stack@ky.gov>	me (HHS/OASH) < Jerome. Adams@hhs.gov	/>; Fantinato, Jessica
(USDA.GOV) < jessica.fantinato@usda	a.gov>; DC <michelle.colby@usda.gov>; da</michelle.colby@usda.gov>	nny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; Hu</dshiau@cghe.org>	nt, Richard (OS/ASPR/EMMO) < Richard. Hu	int@hhs.gov>; Dr. Eva K
Lee <evalee-gatech@pm.me></evalee-gatech@pm.me>	reserve automoranden im presiden en 1 den 14 de 14 de 15 dels siderete (14 dels 17 de 17 de Seu maria	

Subject: Re: Red Dawn Rising Start Feb 29

Act. Now.

Respectfully,

David Marcozzi, MD, MHS-CL, FACEP
Associate Professor
Director of Population Health
Department of Emergency Medicine
University of Maryland School of Medicine
https://em.umaryland.edu

Associate Professor
Department of Epidemiology and Public Health
University of Maryland School of Medicine
http://www.medschool.umaryland.edu/programs/disparities/

Assistant Chief Medical Officer for Acute Care University of Maryland Medical Center http://www.umm.edu

Deputy Medical Director
Baltimore City Fire Department
https://protect2.fireeye.com/url?k=b96421a0-e5312870-b964109f-0cc47a6a52de3167a069f4a1ce67&u=https://fire.baltimorecity.gov/

Mailing Address: 6th floor, Suite 200 110 South Paca Street Baltimore, Maryland 21201 410-328-8025 (office) 410-328-8028 (fax) dmarcozzi@em.umaryland.edu

Take time to deliberate; but when the time for action arrives, stop thinking and go in. -President Andrew Jackson

From: Carter Mecher <cmecher@charter.net> Date: Tuesday, March 3, 2020 at 1:54 PM To: Tracey McNamara <tmcNamara@westernu.edu>, Richard Hatchett <ri>chard.hatchett@cepi.net>, "Dr. Eva Lee" (b)(6)</ri> Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov>, "mvcallahan@mgh.harvard.edu" <MVCALLAHAN@mgh.harvard.edu>, James Lawler <james.lawler@unmc.edu>, Duane Caneva <duane.caneva@hq.dhs.gov>, David Marcozzi <DMarcozzi@som.umaryland.edu>, Tom Bossert <tom.bossert@me.com>, "Charity A@CDPH" <Charity.Dean@cdph.ca.gov>, Ralph S <rbaric@email.unc.edu>, Gregory J <MartinGJ@state.gov>, William <WaltersWA2@state.gov>, CAMERON < cameron.hamilton@hq.dhs.gov>, (b)(6) " (b)(6) "Daniel (OS/ASPR/SPPR)" < Daniel. Dodgen@hhs.gov >, "Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "Sally (OS/ASPR/SPPR)" <Sally.Phillips@hhs.gov>, "matthew. hepburn" (h)/6) Lisa Koonin (b)(6) <melissa.harvey@hq.dhs.gov>, HERBERT <HERBERT.WOLFE@hq.dhs.gov>, Alexander <alexander.eastman@hq.dhs.gov>, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>, "jwleduc@utmb.edu" <jwleduc@utmb.edu>, "Robert (OS/ASPR/BARDA)" <Robert_Johnson@hhs.gov>, Kevin Yeskey <kevin.yeskey@hhs.gov>, "Gary (OS/ASPR/BARDA)" <Gary.Disbrow@hhs.gov>, "John (OS/ASPR/SPPR)" <John.Redd@hhs.gov>, "David (Chris) (OS/ASPR/IO)" <David.Hassell@hhs.gov>, "Joseph (OS/ASPR/IO)" <Joseph.Hamel@hhs.gov>, Luciana <LBorio@iqt.org>, Dan <DHanfling@iqt.org>, "Eric (San Diego County)" <Eric.McDonald@sdcounty.ca.gov>, David <david.wade@hq.dhs.gov>, DAVID A <david.a.tarantino@cbp.dhs.gov>, "david.gruber@dshs.texas.gov" <david.gruber@dshs.texas.gov>, SANGEETA <sangeeta.kaushik@hq.dhs.gov>, Scott <Scott.Lee@hhs.gov>, Larry G <PadgetLG@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Jt(tCHFStDPH)" <steven.stack@ky.gov>, "tJerome (HHS/OASH)" < Jerome.Adams@hhs.gov>, DC < jessica.fantinato@usda.gov>, DC <michelle.colby@usda.gov>, "danny.shiau@usuhs.edu" <danny.shiau@usuhs.edu>, Danny Shiau <dshiau@cghe.org>, "richard.hunt@hhs.gov" <richard.hunt@hhs.gov>, "Dr. Eva K Lee" <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-inhumans-doctor-

says?fbclid=lwAR1mBA6yW0sR kebFJsGbGlwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

 Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;

- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- 5. Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission —

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Sent: 03 March 2020 03:59
To: Tracey McNamara <tmcnamara@westernu.edu>; Dr. Eva Lee √(b)(6)</tmcnamara@westernu.edu>
Cc: THOMAS < THOMAS.WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.edu>; James V
<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></james.lawler@unmc.edu>
<dmarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></dmarcozzi@som.umaryland.edu>
< <u>Charity.Dean@cdph.ca.gov</u> >; Ralph S < <u>rbaric@email.unc.edu</u> >; Richard Hatchett
<ri>chard.hatchett@cepi.net>; Gregory J < MartinGJ@state.gov>; William < WaltersWA2@state.gov>;</ri>
CAMERON <cameron.hamilton@hq.dhs.gov>;/\\\C\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</cameron.hamilton@hq.dhs.gov>
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov></daniel.dodgen@hhs.gov>
<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA) </sally.phillips@hhs.gov>
MELISSA < melissa.harvey@hq.dhs.gov>; HERBERT
<herbert.wolfe@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED</alexander.eastman@hq.dhs.gov></herbert.wolfe@hq.dhs.gov>
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA)</mariefred.evans@associates.hq.dhs.gov>
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA)</kevin.yeskey@hhs.gov></robert_johnson@hhs.gov>
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov></gary.disbrow@hhs.gov>
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></joseph.hamel@hhs.gov></david.hassell@hhs.gov>
Dan <dhanfling@iqt.org>; Eric (San Diego County) <eric.mcdonald@sdcounty.ca.gov>; David</eric.mcdonald@sdcounty.ca.gov></dhanfling@iqt.org>
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov;</david.a.tarantino@cbp.dhs.gov></david.wade@hq.dhs.gov>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org></padgetlg@state.gov>
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.adams@hhs.gov>; DC</jerome.adams@hhs.gov></steven.stack@ky.gov>
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau</michelle.colby@usda.gov></jessica.fantinato@usda.gov>
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me></evalee-gatech@pm.me></dshiau@cghe.org>
Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Dr. Eva K Lee
Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher < cmecher@	charter.net>	
Sent: Monday, March 02, 2020 1	1:45 AM	
To: Dr. Eva Lee (h)(6)	>; Tracey Mcf	Namara <tmcnamara@westernu.edu></tmcnamara@westernu.edu>
Cc: THOMAS < THOMAS. WILKINS	ON@hq.dhs.gov>; M.D. <n< td=""><td>AVCALLAHAN@mgh.harvard.edu>; James V</td></n<>	AVCALLAHAN@mgh.harvard.edu>; James V
<james.lawler@unmc.edu>; Dua</james.lawler@unmc.edu>	ne <duane.caneva@hq.dhs< td=""><td>s.gov>; David</td></duane.caneva@hq.dhs<>	s.gov>; David
<dmarcozzi@som.umaryland.ed< td=""><td>u>; Tom Bossert <tom.boss< td=""><td>sert@me.com>; Charity A@CDPH</td></tom.boss<></td></dmarcozzi@som.umaryland.ed<>	u>; Tom Bossert <tom.boss< td=""><td>sert@me.com>; Charity A@CDPH</td></tom.boss<>	sert@me.com>; Charity A@CDPH
<charity.dean@cdph.ca.gov>; Ra</charity.dean@cdph.ca.gov>	olph S <rbaric@email.unc.e< td=""><td>edu>; Richard Hatchett</td></rbaric@email.unc.e<>	edu>; Richard Hatchett
<ri>crichard.hatchett@cepi.net>; Gr</ri>	egory J <martingj@state.g< td=""><td>gov>; William <walterswa2@state.gov>;</walterswa2@state.gov></td></martingj@state.g<>	gov>; William <walterswa2@state.gov>;</walterswa2@state.gov>
CAMERON < cameron.hamilton@	hq.dhs.gov>;(h)(6)	Daniel (OS/ASPR/SPPR)
<daniel.dodgen@hhs.gov>; Krist</daniel.dodgen@hhs.gov>	in (OS/ASPR/SPPR) < Kristin	n.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<sally.phillips@hhs.gov>; Matthe</sally.phillips@hhs.gov>	w J CIV USARMY (USA) 47	; Lisa Koonin
<11/h)/6) >; MELISSA	A <melissa.harvey@hq.dhs< td=""><td>.gov>; HERBERT</td></melissa.harvey@hq.dhs<>	.gov>; HERBERT
<herbert.wolfe@hq.dhs.gov></herbert.wolfe@hq.dhs.gov>	: Alexander <alexander.eas< td=""><td>stman@hq.dhs.gov>; MARIEFRED</td></alexander.eas<>	stman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hc< td=""><td>.dhs.gov>; jwleduc@utmb</td><td>edu; Robert (OS/ASPR/BARDA)</td></mariefred.evans@associates.hc<>	.dhs.gov>; jwleduc@utmb	edu; Robert (OS/ASPR/BARDA)
<robert johnson@hhs.gov="">: Key</robert>	in <kevin td="" veskev@hhs.gov<=""><td>>: Gary (OS/ASPR/BARDA)</td></kevin>	>: Gary (OS/ASPR/BARDA)

<Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@igt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

Public health officials near Seattle reported the nation's first two deaths in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;

richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) wrote: Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board. On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote: https://protect2.fireeye.com/url?k=d40f0ba0-885a0270-d40f3a9f-0cc47a6a52def2565d806c513889&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD S. Korea drive through COVID19 testing. We need this now Tracey Get Outlook for Android cid:%3cimage001.png@01D5F147.65E64720%3e From: Dr. Eva Lee (b)(6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>*b)(6) ; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) </h ; Lisa Koonin (b)(6) MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris)

(OS/ASPR/IO) < David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) < Joseph.Hamel@hhs.gov>;

Luciana <<u>LBorio@iqt.org</u>>; Dan <<u>DHanfling@iqt.org</u>>; Eric (San Diego County) <<u>Eric.McDonald@sdcounty.ca.gov</u>>; David <<u>david.wade@hq.dhs.gov</u>>; DAVID A

<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov</david.a.tarantino@cbp.dhs.gov>
david.gruber@dshs.texas.gov ; SANGEETA <sangeeta.kaushik@hq.dhs.gov< a="">; Scott</sangeeta.kaushik@hq.dhs.gov<>
< <u>Scott.Lee@hhs.gov</u> >; Larry G < <u>PadgetLG@state.gov</u> >; Ryan Morhard
<ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome</steven.stack@ky.gov></ryan.morhard@weforum.org>
(HHS/OASH) <jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu <danny.shiau@usuhs.edu>; Danny Shiau</danny.shiau@usuhs.edu></michelle.colby@usda.gov>
<dshiau@cghe.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov></dshiau@cghe.org>
\(\frac{4}{h}\)(6) \rightarrow; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act
now. Please make it happen!
evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/ mobile:(b)(6)
(b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO
<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Sent Date: 2020/03/03 21:07:29

Delivered Date: 2020/03/03 21:07:31

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:18:41
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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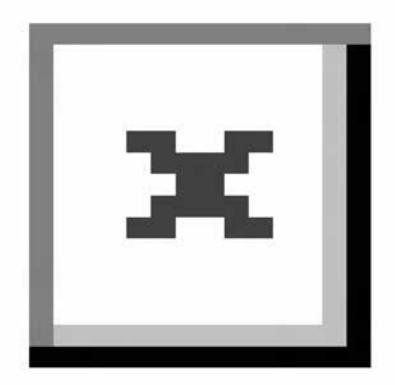
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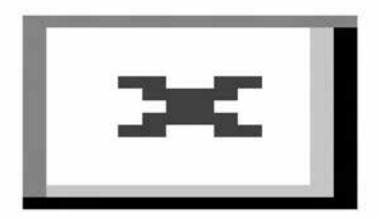
From: Carter	Mecher <cmecher@charter.net></cmecher@charter.net>
Sent: Wedne	sday, March 4, 2020 7:44 AM
To: Tracey M	cNamara <tmcnamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr</richard.hatchett@cepi.net></tmcnamara@westernu.edu>
Eva Lee (h)	(6)
Cc: THOMAS	<thomas.wilkinson@hq.dhs.gov>; M.D. <mvcallahan@mgh.harvard.edu>; James V</mvcallahan@mgh.harvard.edu></thomas.wilkinson@hq.dhs.gov>
<james.lawle< td=""><td>r@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov></td></james.lawle<>	r@unmc.edu>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
<dmarcozzi@< td=""><td>@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com></td></dmarcozzi@<>	@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
<charity.dea< td=""><td>n@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu></td></charity.dea<>	n@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Gregory J <martingj@state.gov>;</martingj@state.gov></rbaric@email.unc.edu>
Walters, Will	iam (STATE.GOV) <walterswa2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;</cameron.hamilton@hq.dhs.gov></walterswa2@state.gov>
(b)(6)	Dodgen, Daniel (OS/ASPR/SPPR) < Daniel.Dodgen@HHS.GOV>; DeBord, Kristin

(OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) 4(b)(6) ; Lisa Koonin (h)(R) MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Redd, John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Hamel, Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; eric.mcdonald@sdcounty.ca.gov; David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.





Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's secondlargest city, the total climbed to 90.

Sent from Mail for Windows 10

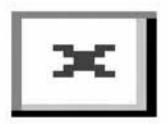
From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?



Image

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Local Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (Land Section 1); Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount
 of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- 5. There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- 8. Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Live Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Ulerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

ree

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; M.D.; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community." But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-inhumans-doctor-

says?fbclid=lwAR1mBA6yW0sR kebFJsGbGlwu95UvuDknNEWs7NP 2kXS17LgSTdYFMHcb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

-



The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and allof-society approach needed to contain COVID-19 with nonpharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper

- respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI); and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of largescale gatherings and the closure of schools and workplaces).

Sent from Mail for Windows 10

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Lee ﴿b)(6)

Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V

<james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David

<DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH

<<u>Charity.Dean@cdph.ca.gov</u>>; Ralph S <<u>rbaric@email.unc.edu</u>>; Richard Hatchett

<ri>crichard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>;</ri>

CAMERON < cameron.hamilton@hq.dhs.gov>; (b)(6)	; Daniel (OS/ASPR/SPPR)
<pre><daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin</daniel.dodgen@hhs.gov></pre>	n.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA) <</sally.phillips@hhs.gov>	h)(6) ; Lisa Koonir
; MELISSA <melissa.harvey@hq.dhs.< p=""></melissa.harvey@hq.dhs.<>	.gov>; HERBERT
< HERBERT.WOLFE@hq.dhs.gov>; Alexander < alexander.eas	stman@hq.dhs.gov>; MARIEFRED
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb</mariefred.evans@associates.hq.dhs.gov>	.edu; Robert (OS/ASPR/BARDA)
<robert_johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov< td=""><td>>; Gary (OS/ASPR/BARDA)</td></kevin.yeskey@hhs.gov<></robert_johnson@hhs.gov>	>; Gary (OS/ASPR/BARDA)
<gary.disbrow@hhs.gov>; John (OS/ASPR/SPPR) <john.red< td=""><td>dd@hhs.gov>; David (Chris) (OS/ASPR/IO)</td></john.red<></gary.disbrow@hhs.gov>	dd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO) <joseph.ha< td=""><td>amel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org></td></joseph.ha<></david.hassell@hhs.gov>	amel@hhs.gov>; Luciana <lborio@iqt.org>;</lborio@iqt.org>
Dan < DHanfling@iqt.org>; Eric (San Diego County) < Eric.Mc	:Donald@sdcounty.ca.gov>; David
<david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cl< td=""><td>bp.dhs.gov>; david.gruber@dshs.texas.gov;</td></david.a.tarantino@cl<></david.wade@hq.dhs.gov>	bp.dhs.gov>; david.gruber@dshs.texas.gov;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <scott.le< td=""><td>ee@hhs.gov>; Larry G</td></scott.le<></sangeeta.kaushik@hq.dhs.gov>	ee@hhs.gov>; Larry G
<padgetlg@state.gov>; Ryan Morhard <ryan.morhard@w< td=""><td>eforum.org>; Steven Jt(tCHFStDPH)</td></ryan.morhard@w<></padgetlg@state.gov>	eforum.org>; Steven Jt(tCHFStDPH)
<steven.stack@ky.gov>; tJerome (HHS/OASH) <jerome.ada< td=""><td>ms@hhs.gov>; DC</td></jerome.ada<></steven.stack@ky.gov>	ms@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.go< td=""><td>ov>; danny.shiau@usuhs.edu; Danny Shiau</td></michelle.colby@usda.go<></jessica.fantinato@usda.gov>	ov>; danny.shiau@usuhs.edu; Danny Shiau
<dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <</dshiau@cghe.org>	evalee-gatech@pm.me>
Subject: RF: Red Dawn Rising Start Feb 29	

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (h)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test. https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-track-coronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine

Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee (hVR) >; Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS < THOMAS. WILKINSON@hq.dhs.gov>; M.D. < MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <<u>Charity.Dean@cdph.ca.gov</u>>; Ralph S <<u>rbaric@email.unc.edu</u>>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;[/h\/6\ Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) √h\/6\ ; Lisa Koonin >; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert_Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me> Subject: RE: Red Dawn Rising Start Feb 29

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; William; Cameron; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon, Mar 2, 2020 at 11:58 AM Dr. Eva Lee (b)(6) wrote:

Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities — those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity

plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara <tmcNamara@westernu.edu>wrote:

https://protect2.fireeye.com/url?k=839beb95-dfcff2e9-839bdaaa-0cc47adc5fa2-

33b0396ecb1f555b&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now Tracey

Get Outlook for Android

From: Dr. Eva Lee (h)/6) Sent: Monday, March 2, 2020 7:45:51 AM To: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Tracey McNamara <tmcNamara@westernu.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6) Daniel (OS/ASPR/SPPR) < Daniel. Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) (b)(6) Lisa Koonin ; MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu <jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) < Eric. McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>; SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu

<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee

(b)(6)

; Carter Mecher <cmecher@charter.net>
Subject: RE: Red Dawn Rising Start Feb 29

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pm.me

https://newton.isye.gatech.edu/DrLee/

mobile: 404-432-6835

(b)(6)

Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP
Sender: (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO
<Robert.Johnson@hhs.gov>

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group
(FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric
<Rick.Bright@hhs.gov>

Sent Date: 2020/03/04 18:18:40

Delivered Date: 2020/03/04 18:18:41

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89240324306B78740A4A60745E2-JOHNSON, RO <robert.johnson@hhs.gov></robert.johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric <rick.bright@hhs.gov></rick.bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:27
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.

Director, Influenza and Emerging Infectious Diseases Division Biomedical Advanced Research and Development Authority

BARDA

Assistant Secretary for Preparedness and Response ASPR Department of Health and Human Services 330 Independence Avenue, S.W. Room 640 G Washington, D.C. 20201

Office: 202-401-4680 Cell: (b)(6)

email: Robert.Johnson@HHS.gov

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From: Carter Mecher < cmech	er@charter.net>		
Sent: Wednesday, March 4, 20	020 4:50 PM		
To: Dr. Eva K Lee <evalee-gate< td=""><td>ch@pm.me></td><td></td></evalee-gate<>	ch@pm.me>		
Cc: Tracey McNamara <tmcna< td=""><td>mara@westernu.edu>; Richard Hatchett <richard.hatch< td=""><td>ett@cepi.net>; Dr.</td></richard.hatch<></td></tmcna<>	mara@westernu.edu>; Richard Hatchett <richard.hatch< td=""><td>ett@cepi.net>; Dr.</td></richard.hatch<>	ett@cepi.net>; Dr.	
Eva Lee (h)/6)	a Lee (h)(6) ; THOMAS < THOMAS .WILKINSON@hq.dhs.gov>; M.D.		
<mvcallahan@mgh.harvard< td=""><td>d.edu>; James V <james.lawler@unmc.edu>; Caneva, Du</james.lawler@unmc.edu></td><td>ane (DHS.GOV)</td></mvcallahan@mgh.harvard<>	d.edu>; James V <james.lawler@unmc.edu>; Caneva, Du</james.lawler@unmc.edu>	ane (DHS.GOV)	
<duane.caneva@hq.dhs.gov>;</duane.caneva@hq.dhs.gov>	; David <dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>	į	
<tom.bossert@me.com>; Cha</tom.bossert@me.com>	rity A@CDPH <charity.dean@cdph.ca.gov>; Ralph S</charity.dean@cdph.ca.gov>		
<rbaric@email.unc.edu>; Grej</rbaric@email.unc.edu>	gory J <martingj@state.gov>; Walters, William (STATE.G</martingj@state.gov>	iov)	
<walterswa2@state.gov>; CAI</walterswa2@state.gov>	MERON <cameron.hamilton@hq.dhs.gov>(b)(6)</cameron.hamilton@hq.dhs.gov>	Dodgen,	

Daniel (OS/ASPR/SPPR) < Daniel. Dodg	en@HHS.GOV>; DeBord, Kristin (OS/ASP	R/SPPR)
<kristin.debord@hhs.gov>; Phillips, S</kristin.debord@hhs.gov>	ally (OS/ASPR/SPPR) <sally.phillips@hhs.< th=""><th>gov>; Matthew J CIV</th></sally.phillips@hhs.<>	gov>; Matthew J CIV
USARMY (USA)/h)/6)	; Lisa Koonin (/b)/6)	>; MELISSA
<melissa.harvey@hq.dhs.gov>; Wolfe</melissa.harvey@hq.dhs.gov>	, Herbert (DHS.GOV) <herbert.wolfe@ho< td=""><td>q.dhs.gov>;</td></herbert.wolfe@ho<>	q.dhs.gov>;
alexander.eastman@hq.dhs.gov; MAI	RIEFRED < mariefred.evans@associates.h	q.dhs.gov>;
jwleduc@utmb.edu; Johnson, Robert	(OS/ASPR/BARDA) <robert.johnson@hl< td=""><td>ns.gov>; Yeskey, Kevin</td></robert.johnson@hl<>	ns.gov>; Yeskey, Kevin
(OS/ASPR/IO) <kevin.yeskey@hhs.gov< td=""><td>v>; Disbrow, Gary (OS/ASPR/BARDA) <ga< p=""></ga<></td><td>ry.Disbrow@hhs.gov>;</td></kevin.yeskey@hhs.gov<>	v>; Disbrow, Gary (OS/ASPR/BARDA) <ga< p=""></ga<>	ry.Disbrow@hhs.gov>;
Redd, John (OS/ASPR/SPPR) < John.Re	dd@hhs.gov>; Hassell, David (Chris) (OS,	/ASPR/IO)
<david.hassell@hhs.gov>; Hamel, Jos</david.hassell@hhs.gov>	eph (OS/ASPR/IO) <joseph.hamel@hhs.< td=""><td>gov>; Luciana</td></joseph.hamel@hhs.<>	gov>; Luciana
<lborio@iqt.org>; Dan <dhanfling@i< td=""><td>qt.org>; eric.mcdonald@sdcounty.ca.gov</td><td>r; David</td></dhanfling@i<></lborio@iqt.org>	qt.org>; eric.mcdonald@sdcounty.ca.gov	r; David
<david.wade@hq.dhs.gov>; david.a.ta</david.wade@hq.dhs.gov>	arantino@cbp.dhs.gov; david.gruber@ds	hs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Lee</sangeeta.kaushik@hq.dhs.gov>	, Scott (OS/ASPR/EMMO) <scott.lee@hl< td=""><td>ns.gov>; Larry G</td></scott.lee@hl<>	ns.gov>; Larry G
<padgetlg@state.gov>; Ryan Morhar</padgetlg@state.gov>	d <ryan.morhard@weforum.org>; Steve</ryan.morhard@weforum.org>	en Jt(tCHFStDPH)
<steven.stack@ky.gov>; Adams, Jeror</steven.stack@ky.gov>	ne (HHS/OASH) <jerome.adams@hhs.go< td=""><td>v>; Fantinato, Jessica</td></jerome.adams@hhs.go<>	v>; Fantinato, Jessica
(USDA.GOV) < jessica.fantinato@usda	.gov>; DC <michelle.colby@usda.gov>; d</michelle.colby@usda.gov>	anny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; Hur</dshiau@cghe.org>	nt, Richard (OS/ASPR/EMMO) < Richard.H	lunt@hhs.gov>
Subject: RE: Red Dawn Rising Start Fe	b 29	motor's marks

Resending Richard's note below and links to articles (we don't need to get fancy, we need to do what works):

Critically important article on how China succeeded in suppressing transmission –

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowed-coronavirusthey-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-finalreport.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 4:43 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa

Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);

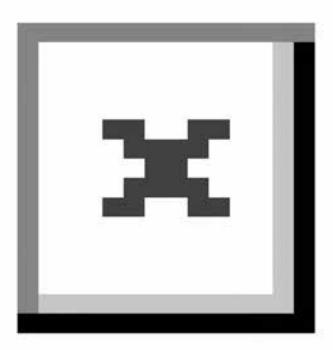
Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);

Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;

Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov Subject: RE: Red Dawn Rising Start Feb 29

Pasted Washington guidance below. This will not reduce community transmission (not enough). Protective sequestration.



Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 4:09 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom

Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa
Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA);
Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO);
Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott;
Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;
Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

What if the players get sick (with covid-19)? So that would become a big scandals on government's decision.

I think it is better for us (in the US) to think that it is a new infectious disease and we don't have any cure nor MCM nor much kmowledge. Let's be cautious and nail it early by putting in precautionary NPI and various steps so that we feel good about being a step ahead of the virus, instead of chasing after it as in Italy, S. Korea. It is again a good time to test how well we can rally business to do the same. I don't see how the government leaders have anything to lose to put in the appropriate measures now.

evalee-gatech@pm.me https://newton.isye.gatech.edu/DrLee/ mobile: 404-432-6835

Sent with ProtonMail Secure Email.

------ Original Message -----On Wednesday, March 4, 2020 2:57 PM, Carter Mecher <cmecher@charter.net>wrote:

Look at the desperation in Italy.

Italian government orders all sporting events to take place without fans until April 3 due to coronavirus

Italy is considering to put more towns in northern Italy on lockdown due to coronavirus

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:36 PM

To: Dr. Eva K Lee

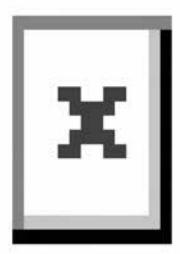
Cc: <u>Tracey McNamara</u>; <u>Richard Hatchett</u>; <u>Dr. Eva Lee</u>; <u>THOMAS</u>; <u>M.D.</u>; <u>James V</u>; <u>Duane</u>; <u>David</u>; <u>Tom Bossert</u>; <u>Charity A@CDPH</u>; <u>Ralph S</u>; <u>Gregory J</u>; <u>William</u>; <u>CAMERON</u>; <u>(b)(6)</u> <u>Daniel</u>

(OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

The US is now up to 11 deaths (10 in Washington and 1 in California).

I think there is disconnect among very smart people. They hear the high % of patients who are asymptomatic or have mild illness and equate this to a mild outbreak. Hard for me to understand how they come to this conclusion.



From: Carter Mecher

Sent: Wednesday, March 4, 2020 2:19 PM

To: Dr. Eva K Lee

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; h(6)

[OS/ASPR/SPPR]; Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu;

Danny Shiau; richard.hunt@hhs.gov Subject: RE: Red Dawn Rising Start Feb 29

Eva, I agree with you. Political leaders and public health leaders need to be convinced of the utility of these interventions and the courage to act. If they miss the window to act, they don't get a do-over. Can't take a Mulligan with NPIs. There is no reset button to play the game again. You only get one shot. I fear that Seattle may have missed their opportunity. Out of desperation I predict they may eventually implement and endure all the downsides of NPIs with marginal to little upside. This is exactly what happened in 1918. A while back I shared some slides on the lessons learned from 1918. Unfortunately, we have to learn some lessons again and again.

Sent from Mail for Windows 10

From: Dr. Eva K Lee

Sent: Wednesday, March 4, 2020 1:54 PM

To: Carter Mecher

Cc: Tracey McNamara; Richard Hatchett; Dr. Eva Lee; THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (NYG) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov

Subject: RE: Red Dawn Rising Start Feb 29

Carter, please review the information I sent regarding the NPI intervention model I sent for Santa Clara yesterday. I ran it for Hong Kong. It is another perfect result to confirm what we should do.

I am not sure how we can use increase of ILI and other disease activities to predict COVID-19, They should be used, but they are secondary because by the time we are seeing the citizens' symptoms and complaints, we are a few weeks late already. The "unknown" cases are out there already. Those with no/mild symptoms, or doesn't really matter if there's any symptoms or not, the 1 case in Santa Clara on Jan 31 is real. It's one -- and as we can see in the model -- one case is one case too many already, because it's already growing. Because it means there're others we don't know.

For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then ICU/ED patients. Ok, that we can screen and should screen. Also, the flu may be masked by COVID-19, as in Japan where COVID-19 basically halted the flu season. So there may be no spike at all in the surveillance data, since it is the usual pattern, but instead of the usual flu/cold etc, it is replaced by COVID-19. It is really quite difficult to use disease surveillance as a guide, because that is for sure late at least by 2 weeks. if not more weeks. The moment the first case appears, we're late already by 2 weeks.

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)
Sent with ProtonMail Secure Email.
Original Message
On Wednesday, March 4, 2020 7:44 AM, Carter Mecher Schecher@charter.net>wrote

Hong Kong (101 case/2 deaths) and Singapore (110 cases/0 deaths) continue to hold the line. Singapore has linear growth (keeping Ro close to 1); Hong Kong also has linear growth. This is really best practice for a city. Might be worthwhile for US cities to take a close look at how Singapore and Hong Kong have responded throughout this crisis. When this all began, Hong Kong and Singapore were seeded early and very early on they had the largest number of cases following mainland China. Since then I have watched other countries come out of nowhere and race far ahead of Hong Kong and Singapore (linear growth vs. exponential growth). South Korea (5,621/28 deaths); Italy (2,502/79); Iran (2,336/77); Japan (293/6); France (212/4); Germany (203/0); Spain (165/1); US (127/9). Seattle alone will overtake Hong Kong and Singapore by the end of the week. Organizations and governments and scientists like to talk about learning from best practices. Well here they are. When I show the slide of Philadelphia-St. Louis in 1918 I often ask audiences which city they would have preferred to be living in during the 1918 pandemic. When we look back at this pandemic, we will have new contrasting city pairs and contrasting country pairs and can pose a similar question.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:45 AM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

The healthcare system in parts of South Korea is stressed.

https://www.upi.com/Top_News/World-News/2020/03/03/South-Korea-declares-war-on-COVID-19-as-cases-near-5200/5571583220005/

South Korea has tested more than 121,000 people so far, the KCDC said on Tuesday, far more than most countries.

Moon also addressed the economic fallout from the coronavirus at Tuesday's meeting, calling it "severe."

"Economic sentiment is frozen and investment, consumption and industrial activity are shrinking significantly," he said.

Moon announced plans to spend \$25 billion to deal with the crisis, including a supplemental budget that he said will be submitted to the country's National Assembly on Wednesday. The budget will be used to support small businesses and stimulate domestic consumption as well as to expand medical facilities and equipment.

The hardest-hit area of Daegu has seen a shortfall of hospital beds, while masks used to help prevent the spread of the disease have been out of stock in many pharmacies around the country despite the government's efforts to stabilize the supply.

Moon apologized on Tuesday for the mask shortage and called for increased production and better distribution from suppliers.

In Daegu, some 1,800 patients are quarantined at home awaiting available hospital beds, Vice Health Minister Kim Gang-lip said at a daily press briefing on Tuesday. He said that the government will have an additional 2,000 sickbeds in isolation facilities to treat and monitor patients with milder symptoms ready by early next week.

Authorities have completed testing on roughly 6,000 members of the Shincheonji church in Daegu, Kim said, adding that the results have not yet been fully tallied but the ratio of those testing positive for COVID-19 remains very high.

Kim said that the disease has been spreading through the community outside of the church as well, and officials are extending their focus toward testing ordinary residents.

"We are seeing transmission of virus through the community," Kim said. "In order to mitigate the harm we need to expand the tests to the rest of the citizens of Daegu."

COVID-19 cases also continue to be reported in most cities and provinces around the country, with the number of patients in Seoul rising to 98 by Tuesday morning, while in Busan, the country's second-largest city, the total climbed to 90.

From: Carter Mecher

Sent: Wednesday, March 4, 2020 6:09 AM

Subject: RE: Red Dawn Rising Start Feb 29

It is amazing how high the prevalence must be in Italy to have the amount of spread we are seeing associated with travelers from Italy. What is equally amazing is how it was hidden until it exploded. I suspect what happened in Italy is really the 'movie' for the rest of the world, including the US. It would be really useful to have better intel on what is happening to the healthcare delivery system in Italy (Italy also has the 2nd oldest population with 23% age 65+ while Japan is at 27% and the US at 15%).

The only report I noticed was a brief report on Twitter that "Italy - Converting military barracks to makeshift hospitals in anticipation of the development of Coronavirus spread"

Does anyone have better data?

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:42 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; David; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID

A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Updated Italy overview. Two more countries reported first cases of travelers from Italy (total of 20 countries reporting confirmed cases in travelers from Italy).

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:29 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

NHS England declares coronavirus a level 4 incident, the highest level of emergency - Sky News

https://news.sky.com/story/coronavirus-cases-in-the-uk-rise-to-51-11948376

NHS England has declared coronavirus a level four incident - the highest level of emergency preparedness planning

It comes as confirmed cases in the UK rose to 51 and Boris Johnson unveiled his plan for dealing with the outbreak.

The government said it would consider closing schools and universities, encourage working from home and a reduction in large gatherings.

Key Points

- Police would "concentrate on responding to serious crimes" if they lose a "significant" amount of staff to illness
- UK has stockpiles of medicines for the NHS, along with protective clothing and equipment for medical staff
- If coronavirus becomes widespread, there will be a focus on essential services for those "most at risk"
- 4. The Ministry of Defence will provide support as needed
- There will be increased government communication with parliament, the public and the media
- Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
- Non-urgent operations and procedures could be cancelled and hospital discharges monitored to free up beds
- Measures would come into place to help businesses with short-term cash flow problems
- A distribution strategy for sending out key medicines and equipment to NHS and social care patients

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 2:24 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b) ; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
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Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Another death in Washington.

U.S. death toll from coronavirus rises to 7 after Washington resident who died 6 days ago was found to have been infected - NYT

An earlier death in Washington State is tied to the virus.

A person who died last week in a Seattle hospital had the coronavirus, tests have shown, marking the earliest known fatality from the infection in the United States, and raising the death toll in the country to seven.

The person was brought to Seattle's Harborview Medical Center on Feb. 24 and died two days later, on Wednesday, before a crisis in the state began unfolding over the weekend.

Susan Gregg, a spokeswoman for the hospital, said on Tuesday that test samples from the person, who was a resident of the same nursing home that has had a number of coronavirus cases and deaths, have tested positive for the virus.

"In coordination with Public Health, we have determined that some staff may have been exposed while working in an intensive care unit where the patient had been treated," Ms. Gregg said.

Sent from Mail for Windows 10

From: Carter Mecher

Sent: Tuesday, March 3, 2020 1:55 PM

To: Tracey McNamara; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin
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(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
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Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive <u>coronavirus case</u> is a casino worker who attended a youth basketball game at a Umatilla County middle school, authorities announced Monday as one of the state's top health officials said he expects more cases to develop, including ones that could prove fatal.

Dr. Dean Sidelinger, the state's health officer, said the virus will continue to spread in Oregon but that the health system is prepared for the disease.

"We know that people are scared," he said. "We are learning more and more about this disease every day."

Of the three Oregon patients, one has mild symptoms but the Oregon Health Authority has declined to give out the conditions of the other two, who are receiving hospital treatment.

Sidelinger continued to urge calm and advise regular hand-washing, even as the epidemiologist acknowledged that having multiple cases of unknown origin in the state could mean that the coronavirus is "fairly widespread in our community."

But the majority of people who get sick worldwide have a mild course of the disease, Sidelinger said, and those who need to be hospitalized usually have underlying symptoms.

Health officials currently <u>are monitoring</u> 101 Oregonians for symptoms because of their travel patterns or their contact with people known to have COVID-19. They will be tested for the disease only if they develop symptoms within 14 days their last potential exposure.

The man from Umatilla County with coronavirus was taken Saturday from the basketball game at Weston Middle School in Weston, a tiny town near the Oregon-Washington border, to a hospital in Walla Walla, Wash., officials said.

The school gym is closed for a deep cleaning, the state said. The gym is detached from the main school building. Weston Middle School enrolls 250 students in grades four through eight.

People who attended the game have a low risk of exposure to the virus and there is no risk of exposure at the main school, state health officials said.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Tuesday, March 3, 2020 1:35 PM

To: Carter Mecher; Richard Hatchett; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; James V; Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); Uerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

https://www.fox10phoenix.com/news/feline-coronavirus-treatment-could-stop-spread-of-covid-19-in-humans-doctor-

says?fbclid=IwAR1mBA6yW0sR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMH cb8

Feline coronavirus treatment could stop spread of COVID-19 in humans, doctor says

"The drug GS-441524, or GS for short, is manufactured in China and marketed as a supplement for cats.

Its effect in cats was demonstrated by Dr. Niels Pedersen at the U.C. Davis School of Veterinary Medicine. He's been researching coronaviruses for more than 40 years. In his most recent study, he successfully treated FIP in 25 of 31 cats using GS-441524. He says the drug works by blocking the virus's ability to replicate.

"It very clear that GS-441524 is highly effective against coronavirus infection in cats," he explained. "It's the virus-infected cells that are producing all of these nasty cytokines that are causing this inflammation so if you can stop the replication cold in its tracks you're going to immediately stop the cytokines from being produced."

GS-441524 is very similar to the experimental human drug, Remdesivir and patents for both are held by manufacturer Gilead.

Remdesivir has already been used to treat a Seattle man infected with a different coronavirus, SARS-CoV-2. Although they can't say for sure that the medication worked, his condition improved one day after receiving the intravenous drug.

Remdesivir is now being used in a clinical trial in China to treat patients with COVID-19 but Pedersen says Gilead is not developing GS-441524 for humans. But because the two drugs are so similar, he wonders if Remdesivir would work in cats and if GS could work for humans."I am kind of amazed but I'm also worried what will happen to the cats if people decide to start using the GS made for cats to treat humans," Pedersen says. Kim says the rescue paid \$7,000 to treat the two kittens and that pet owners around the world are also paying thousands for the supplement. She hopes by shedding a light on the plight of cat owners the manufacturer will realize there's a market for GS for cats." There is a viable option that death is not required from this disease but it's just not known," Kim says. "We want to get it off the black market, we want to get this thing mainstream."

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 03, 2020 2:27 AM
To: Richard Hatchett < richard.hatchett@cepi.net>; Tracey McNamara
<tmcNamara@westernu.edu>; Dr. Eva Lee <\( \)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D.
<MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane
<duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert
<tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S
<rbaric@email.unc.edu>; Gregory J <MartinGJ@state.gov>; William
<WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>;
rjglassjr@gmail.com; Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin
(OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR)
<Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA)
                                                               : MELISSA
(h)(6)
                             : Lisa Koonin (b)(6)
<melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander
<alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;
jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin
<kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John
(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
<David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana
<LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)
<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A
<david.a.tarantino@cbp.dhs.gov>; david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G
<PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH
) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-
gatech@pm.me>
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Subject: RE: Red Dawn Rising Start Feb 29

The documents Richard sent are excellent. I went thru and pulled out excerpts that really struck me. To get to the bottom line, I pasted the recommendation for us.

For countries with imported cases and/or outbreaks of COVID-19

- Immediately activate the highest level of national Response Management protocols to ensure the all-ofgovernment and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
- Fully educate the general public on the seriousness of COVID-19 and their role in preventing its spread;
- 4. Immediately expand surveillance to detect COVID-19 transmission chains, by testing all patients with atypical pneumonias, conducting screening in some patients with upper respiratory illnesses and/or recent COVID-19 exposure, and adding testing for the COVID-19 virus to existing surveillance systems (e.g. systems for influenza-like-illness and SARI);and
- Conduct multi-sector scenario planning and simulations for the deployment of even more stringent measures to interrupt transmission chains as needed (e.g. the suspension of large-scale gatherings and the closure of schools and workplaces).

From: Richard Hatchett

Sent: Tuesday, March 3, 2020 4:00 AM

To: Carter Mecher; Tracey McNamara; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S;
Gregory J; William; CAMERON; (b) Daniel (OS/ASPR/SPPR); Kristin
(OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin;
MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert
(OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris)
(OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID
A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven
Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau;
richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Critically important article on how China succeeded in suppressing transmission -

https://www.sciencemag.org/news/2020/03/china-s-aggressive-measures-have-slowedcoronavirus-they-may-not-work-other-countries

The referenced report is at

https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

Need to figure out – VERY quickly – how to mount a comparable response with public buy-in in the US and other liberal societies. Or we can just let people die.

From: Carter Mecher <cmecher@charter.net>

Sent: 03 March 2020 03:59

To: Tracey McNamara <tmcnamara@westernu.edu>; Dr. Eva Lee</tmcnamara@westernu.edu>
<(b)(6)
Ce: THOMAS < THOMAS.WILKINSON@hq.dhs.gov >; M.D.
< <u>MVCALLAHAN@mgh.harvard.edu</u> >; James V < <u>james.lawler@unmc.edu</u> >; Duane
<a a="" href="mailto:square-c</td></tr><tr><td><tom.bossert@me.com>; Charity A@CDPH < Charity.Dean@cdph.ca.gov>; Ralph S</td></tr><tr><td><rbaric@email.unc.edu>; Richard Hatchett <ri>richard.hatchett@cepi.net>; Gregory J</td></tr><tr><td>< MartinGJ@state.gov>; William < WaltersWA2@state.gov>; CAMERON</td></tr><tr><td><ameron.hamilton@hq.dhs.gov>; (b)(6) Daniel (OS/ASPR/SPPR)</td></tr><tr><td><Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) < Kristin.DeBord@hhs.gov>; Sally</td></tr><tr><td>(OS/ASPR/SPPR) < Sally.Phillips@hhs.gov >; Matthew J CIV USARMY (USA)</td></tr><tr><td>(b)(6) ; Lisa Koonin (b)(6) ; MELISSA</td></tr><tr><td><melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander</td></tr><tr><td><alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>;</td></tr><tr><td>jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin</td></tr><tr><td>< kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) < Gary.Disbrow@hhs.gov>; John</td></tr><tr><td>(OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</td></tr><tr><td><<u>David.Hassell@hhs.gov</u>>; Joseph (OS/ASPR/IO) <<u>Joseph.Hamel@hhs.gov</u>>; Luciana</td></tr><tr><td><LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County)</td></tr><tr><td>< Eric, McDonald@sdcounty.ca.gov >; David < david.wade@hq.dhs.gov >; DAVID A</td></tr><tr><td><a href=" mailto:<=""> david.gruber@dshs.texas.gov; SANGEETA
<sangeeta.kaushik@hq.dhs.gov>; Scott <scott.lee@hhs.gov>; Larry G</scott.lee@hhs.gov></sangeeta.kaushik@hq.dhs.gov>
< PadgetLG@state.gov >; Ryan Morhard < Ryan.Morhard@weforum.org >; Steven Jt(tCHFStDPH
) < <u>steven.stack@ky.gov</u> >; tJerome (HHS/OASH) < <u>Jerome.Adams@hhs.gov</u> >; DC
<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;</michelle.colby@usda.gov></jessica.fantinato@usda.gov>
Danny Shiau < <u>dshiau@cghe.org</u> >; <u>richard.hunt@hhs.gov</u> ; Dr. Eva K Lee < <u>evalee-</u>
gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

Updated the case study and inserted a note each day of cases from travelers from Italy were confirmed in other countries (highlighted in red). The amount of spread underscores how prevalent COVID really was in Italy.

Sent from Mail for Windows 10

From: Tracey McNamara

Sent: Monday, March 2, 2020 9:57 PM

To: Carter Mecher; Dr. Eva Lee

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; [FAVEN]; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric (San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee

Subject: RE: Red Dawn Rising Start Feb 29

Courtesy of : Raina MacIntyre r.macintyre@unsw.edu.au

I think one of the problems is the poor sensitivity of the throat swab. Several studies have shown that serial throat swabs can be falsely negative. A nasal swab is more sensitive. There should be guidelines stipulating that a sputum is the gold standard, and if that is not possible for a "recovered" patient, serial nasal swabs should be done. I think this is also telling us the duration of viral shedding is quite long. 5-9 days from symptom onset to seeking medical care; + 2-3 weeks in hospital + shedding in the convalescent phase adds up,. Most of the modelling studies assume 7 days of viral shedding, which is clearly wrong. See:

https://www.nejm.org/doi/full/10.1056/NEJMc2001737

important paper showing:

- 1. viral load in asymptomatic same as symptomatic
- 2. Viral load highest early in the illness, when symptoms mild or absent
- Nasal/NP swab more sensitive than throat swab

And in terms of the slow progress towards serology, it seems Singapore has developed a serological test.

https://www.sciencemag.org/news/2020/02/singapore-claims-first-use-antibody-test-trackcoronavirus-infections

Sensitive diagnostic tests are the highest priority for containment, but we seem to be slow off the mark, with everyone focused on vaccines.

Regards

Raina

Professor Raina MacIntyre

Head | Biosecurity Research Program | Kirby Institute | UNSW Medicine Professor of Global Biosecurity &NHMRC Principal Research Fellow

From: Carter Mecher <cmecher@charter.net> Sent: Monday, March 02, 2020 11:45 AM To: Dr. Eva Lee </br/>
(b)(6) 7: Tracey McNamara <tmcNamara@westernu.edu> Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane duane.caneva@hq.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Tom Bossert <tom.bossert@me.com>; Charity A@CDPH <Charity.Dean@cdph.ca.gov>; Ralph S <rbaric@email.unc.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Gregory J <MartinGJ@state.gov>; William <WaltersWA2@state.gov>; CAMERON <cameron.hamilton@hq.dhs.gov>; (b)(6) Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; Matthew J CIV USARMY (USA) : Lisa Koonin (b)(6) 7: MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFE@hq.dhs.gov>; Alexander <alexander.eastman@hq.dhs.gov>; MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA) < Robert.Johnson@hhs.gov >; Kevin <kevin.yeskey@hhs.gov>; Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR) < John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Joseph (OS/ASPR/IO) <Joseph.Hamel@hhs.gov>; Luciana <LBorio@iqt.org>; Dan <DHanfling@iqt.org>; Eric (San Diego County) <Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>; DAVID A <a href="mailto: <a href="mailt <sangeeta.kaushik@hq.dhs.gov>; Scott <Scott.Lee@hhs.gov>; Larry G <PadgetLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC

<jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu;
Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@pm.me>

Subject: RE: Red Dawn Rising Start Feb 29

6 deaths in Seattle

Seattle missed the window...It is too late for NPIs

Seattle-area officials report new coronavirus deaths, bringing US total to 6

Seattle-area officials said Monday that at least four new patients have died from COVID-19 in Washington state, bringing the total number of deaths in the U.S. to at least six.

<u>Public health officials near Seattle reported the nation's first two deaths</u> in a nearby suburb and several new cases over the weekend. Local officials said that about 50 residents and employees of a nursing care facility were being tested for the new coronavirus after several other people there tested positive.

"Unfortunately, we are starting to find more COVID-19 cases here in Washington that appear to be acquired locally here in Washington," Washington state health officer Dr. Kathy Lofy told reporters at a press conference. "We now know that the virus is actively spreading in some communities."

Sent from Mail for Windows 10

From: Dr. Eva Lee

Sent: Monday, March 2, 2020 12:12 PM

To: Tracey McNamara

Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Richard Hatchett; Gregory J; William; CAMERON; (b)(6) ; Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jwleduc@utmb.edu; Robert (OS/ASPR/BARDA); Kevin; Gary (OS/ASPR/BARDA); John (OS/ASPR/SPPR); David (Chris) (OS/ASPR/IO); Joseph (OS/ASPR/IO); Luciana; Dan; Eric

(San Diego County); David; DAVID A; david.gruber@dshs.texas.gov; SANGEETA; Scott; Larry G; Ryan Morhard; Steven Jt(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usuhs.edu; Danny Shiau; richard.hunt@hhs.gov; Carter Mecher; Dr. Eva K Lee

Subject: Re: Red Dawn Rising Start Feb 29

Last night it was 62 countries as I was writing an email. Now it's 74 countries. And we're in the 30's a week ago. We have a ton to catch up. I understand it is always difficult decisions for policy makers. But hopefully the contrasts of Hong Kong/Singapore vs Italy/S Korea/Japan provide a good concept of what needs to be put in place immediately. We need multiple measures in place to slow down the spread that clearly is happening around the country.

On Mon.	Mar 2.	2020 at	11:58	AM Dr.	Eva Le	e <th>>wrote:</th>	>wrote:
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Yes, they are processing 10,000 screening per day. I believe we have to put in NPI actions now across the affected communities --- those sensible steps of school closure, tele-work, call-in advisory hot-lines (for self-reporting or advice), avoid crowds, business continuity plans, exercise cautions on travel, practice personal hygiene, etc. These won't require too much government resources (i.e., funds). The biggest part is screening. Screening requires financial support and requires time and actual human and lab resources. So we must engage private laboratories to provide the screening surge capacities that we need. I will work to make sure Kaiser labs will be on board.

On Mon, Mar 2, 2020 at 11:29 AM Tracey McNamara tmcNamara@westernu.edu>wrote:

> https://protect2.fireeye.com/url?k=9b88a5ba-c7dc8c91-9b889485-0cc47a6d17cc-95e7993d605a08ad&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD

S. Korea drive through COVID19 testing. We need this now

Tracey

Get Outlook for Android

From: Dr. Eva Lee <(b)(6)
Sent: Monday, March 2, 2020 7:45:51 AM
To: THOMAS <thomas, wilkinson@hq.dhs.gov="">; M.D.</thomas,>
<mvcallahan@mgh.harvard.edu>; Tracey McNamara</mvcallahan@mgh.harvard.edu>
<tmcnamara@westernu.edu>; James V <james.lawler@unmc.edu>;</james.lawler@unmc.edu></tmcnamara@westernu.edu>
Duane <duane.caneva@hq.dhs.gov>; David</duane.caneva@hq.dhs.gov>
<dmarcozzi@som.umaryland.edu>; Tom Bossert</dmarcozzi@som.umaryland.edu>
<tom.bossert@me.com>; Charity A@CDPH</tom.bossert@me.com>
< Charity. Dean@cdph.ca.gov>; Ralph S < rbaric@email.unc.edu>; Richard
Hatchett <richard.hatchett@cepi.net>; Gregory J <martingj@state.gov>;</martingj@state.gov></richard.hatchett@cepi.net>
William <walterswa2@state.gov>; CAMERON</walterswa2@state.gov>
<cameron.hamilton@hq.dhs.gov>;(b)(6)</cameron.hamilton@hq.dhs.gov>
<(b)(6) >; Daniel (OS/ASPR/SPPR)
<daniel.dodgen@hhs.gov>; Kristin (OS/ASPR/SPPR)</daniel.dodgen@hhs.gov>
<kristin.debord@hhs.gov>; Sally (OS/ASPR/SPPR)</kristin.debord@hhs.gov>
<sally.phillips@hhs.gov>; Matthew J CIV USARMY (USA)</sally.phillips@hhs.gov>
(b)(6) >; Lisa Koonin
SHELISSA <melissa.harvey@hq.dhs.gov>;</melissa.harvey@hq.dhs.gov>
HERBERT <herbert.wolfe@hq.dhs.gov>; Alexander</herbert.wolfe@hq.dhs.gov>
<alexander.eastman@hq.dhs.gov>; MARIEFRED</alexander.eastman@hq.dhs.gov>
<mariefred.evans@associates.hq.dhs.gov>; jwleduc@utmb.edu</mariefred.evans@associates.hq.dhs.gov>
<jwleduc@utmb.edu>; Robert (OS/ASPR/BARDA)</jwleduc@utmb.edu>
<robert.johnson@hhs.gov>; Kevin <kevin.yeskey@hhs.gov>; Gary</kevin.yeskey@hhs.gov></robert.johnson@hhs.gov>
(OS/ASPR/BARDA) < Gary. Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<john.redd@hhs.gov>; David (Chris) (OS/ASPR/IO)</john.redd@hhs.gov>
<david.hassell@hhs.gov>; Joseph (OS/ASPR/IO)</david.hassell@hhs.gov>
<joseph.hamel@hhs.gov>; Luciana <lborio@iqt.org>; Dan</lborio@iqt.org></joseph.hamel@hhs.gov>
<dhanfling@iqt.org>; Eric (San Diego County)</dhanfling@iqt.org>
<eric.mcdonald@sdcountv.ca.gov>; David <david.wade@hq.dhs.gov>;</david.wade@hq.dhs.gov></eric.mcdonald@sdcountv.ca.gov>
DAVID A <david.a.tarantino@cbp.dhs.gov>;</david.a.tarantino@cbp.dhs.gov>
david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;</david.gruber@dshs.texas.gov>
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott</sangeeta.kaushik@hq.dhs.gov>
<scott.lee@hhs.gov>; Larry G <padgetlg@state.gov>; Ryan Morhard</padgetlg@state.gov></scott.lee@hhs.gov>
<ryan.morhard@weforum.org>; Steven Jt(tCHFStDPH)</ryan.morhard@weforum.org>
<steven.stack@ky.gov>; tJerome (HHS/OASH)</steven.stack@ky.gov>
<jerome.adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC</jessica.fantinato@usda.gov></jerome.adams@hhs.gov>
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu</michelle.colby@usda.gov>
<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghe.org>;</dshiau@cghe.org></danny.shiau@usuhs.edu>
richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee</richard.hunt@hhs.gov>
(b)(6) >; Carter Mecher <cmecher@charter.net></cmecher@charter.net>
Subject: RE: Red Dawn Rising Start Feb 29
Sanders very tree transit very form 1 60 %

We need actions, actions, actions and more actions. We are going to have pockets of epicenters across this country, West coast, East coast and the South. Our policy leaders must act now. Please make it happen!

evalee-gatech@pi	n.me
https://newton.isy	e.gatech.edu/DrLee/
mobile: (b)(6)	
(b)(6)	

Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group

Recipient: (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f46348442d39-Bright, Ric

<Rick.Bright@hhs.gov>

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