From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D4032430687B740AA6074SE3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:09:32
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
Biomedical Advanced Research and Development Authority
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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

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From: Tracey McNamara <tmcNamara@westernu.edu>
Sent: Tuesday, March 3, 2020 8:48 PM
To: Dr. Eva K Lee <evalee-gatech@pm.me>; Marcozzi, David <DMarcozzi@som.umaryland.edu>
Cc: alexander.eastman@hq.dhs.gov; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Carter Mecher <cmecher@charter.net>; 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>;

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Subject: RE: Red Dawn Rising Start Feb 29

GREAT QUOTE David!

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>
Sent: Tuesday, March 03, 2020 5:41 PM
To: Marcozzi, David <DMarcozzi@som.umaryland.edu>
Cc: Eastman, Alexander <alexander.eastman@hq.dhs.gov>; Caneva, Duane <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>; 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) (b)(6) Lisa Koonin (b)(6) HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; WOLFE, HERBERT <HERBERT.WOLFE@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@iqt.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 <PadgettLG@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@uuuhs.edu; richard.hunt@hhs.gov; Jolly, Brantley (OS/ASPR/EMMO) (CTR) <Brantley.Jolly@hhs.gov>; Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Mansoura, Monique K. <mmansoura@mitre.org>
Subject: Re: Red Dawn Rising Start Feb 29

When there is a will, there is a way. Another good example of last mile dispensing (food). I think the school buses and drivers remain great resources there. Tele-work needs to be in conjunction with dealing with the kids. The parents can't just stay home, they should be able to continue work.

I went to the church, the ED and various areas today to scout the crowd situations. I think online service should be encouraged.

-------- Original Message --------
On Tuesday, March 3, 2020 8:16 PM, Marcozzi, David <DMarcozzi@som.umaryland.edu>wrote:

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

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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@hq.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" <(b)(6)>, "WILKINSON, THOMAS" <THOMAS.WILKINSON@hq.dhs.gov>, "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" <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" (b)(6) Lisa Koonin <(b)(6) "HARVEY, 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)" <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" <david.gruber@dshs.texas.gov>, "KAUSHIK, SANGEETA" <sangeeta.kaushik@hq.dhs.gov>, Scott <Scott.Lee@hhs.gov>, Larry G <PadgettLG@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/

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Sent with ProtonMail Secure Email.

------- Original Message -------

On Tuesday, March 3, 2020 4:29 PM, Eastman, Alexander <alexander.eastman@hq.dhs.gov>wrote:

Are we thinking a NEDOCS type dashboard ??

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

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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?

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 <WahersWA2@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)

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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.

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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

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Director of Population Health

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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" (b)(6)
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) "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" (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" <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 <PadgettLG@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Ju(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 coronavirus case 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 J(0CHESt(DPH); tlerome (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."

-

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>; (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>; 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 <PadgettL@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFSt:DPH) <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-(b)(6)

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. • 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 non-pharmaceutical public health measures;
2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. • 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 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(CHESt(DPH); 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 refereneed 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.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); tlerome (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: Carver 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(CHFS)(DPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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; (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 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=eff3387d-b3a72101-eff30942-0cc47adc5fa2-8875181e741b7355&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)(5) ; 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>; 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 Ji(ICHFStDPH) <steven.stack@ky.gov>; tlerome (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: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243006878740A4A6074582-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034753f35a4317aa74f4634844d2d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:09:31
Delivered Date:	2020/03/03 21:09:32

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924D3243068787840AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:36
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
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330 Independence Avenue, S.W. Room 640 G
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From: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Wednesday, March 4, 2020 5:14 PM
To: 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) 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) <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

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:

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=ca763489-96233d9a-ca7605b6-0cc47adb5650-6b716ba6aa9baebf&u=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) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARIEFRED; jw/leduc@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 Jh(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usushs.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

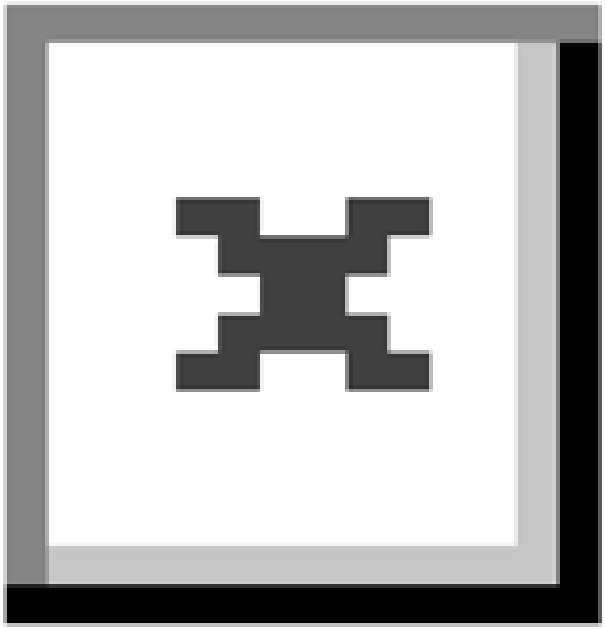
https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

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 Jh(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

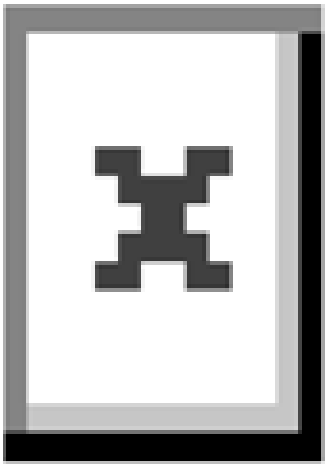
To: Dr. Eva K Lee

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(0CHESt)DPH); tlerome (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(tCHESttDPH); tlerome (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); tlerome (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.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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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(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); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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 J(0CHESt(DPH); tlerome (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

1. 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"
4. The Ministry of Defence will provide support as needed
5. There will be increased government communication with parliament, the public and the media
6. Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. 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
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 Mothard; Steven J(0CHFStDPH); tlerome (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(CHESt/DPH); tlerome (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 coronavirus case 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 J(tCHESttDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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_kebEJsGbGlwu95UvuDknNEWs7NP_2kXS17LgSTdYEMHcb8

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>; (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>; 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@ebp.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@eghe.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

1. 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 non-pharmaceutical public health measures;

2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

3. 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 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(CHESt(DPH); 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 refereneed 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.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 Ji(tCHFStDPH); tlerome (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 (b)(6) Tracey McNamara <tmcNamara@wcstcmu.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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(ICHFSt(DPH) <steven.stack@ky.gov>; Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinano@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; (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 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=99734b30-c5264223-99737a0f-0cc47adb5650-f293df2a26c3d431&u=https://www.linkedin.com/posts/activity-6840256596062670849-8TFD
> >
> > 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)
(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)
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<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.taramino@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 <PadgettLG@state.gov>; Ryan Morhard
<Ryan.Morhard@weforum.org>; Steven J@CHFStDPH)
<steven.stack@ky.gov>; Jerome (HHS/OASH)
<Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC
<michelle.colby@usda.gov>; danny.shiau@usuhs.edu
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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: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430687B740A4A6074SE2-JOHNSON, RO <Robert.Johnson@hhs.gov>

Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484432d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 18:20:35
Delivered Date:	2020/03/04 18:20:36

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f2d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:19:41
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
Biomedical Advanced Research and Development Authority
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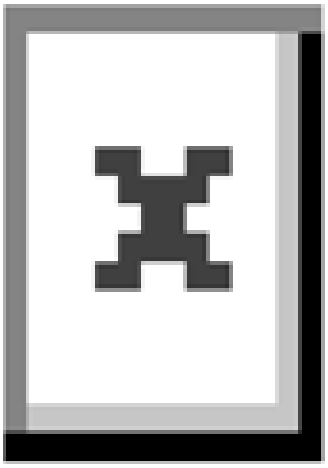
From: Carter Mecher <cmecher@charter.net>
Sent: Wednesday, March 4, 2020 2:36 PM
To: Dr. Eva K Lee <evalee-gatech@pm.me>
Cc: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee (b)(6); THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; 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) <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

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 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.

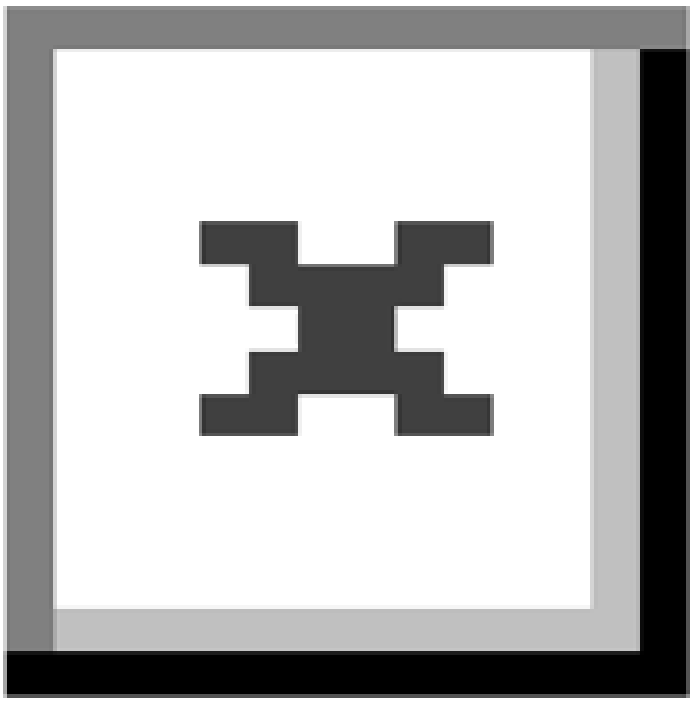
For example for the Seattle nursing home -- they get infected and they have respiratory distressed. But they don't get registered onto public / hospital records. And then university students, they get sick all the time, not that they will see the doctor or anyone. So we won't register them either. Then 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)

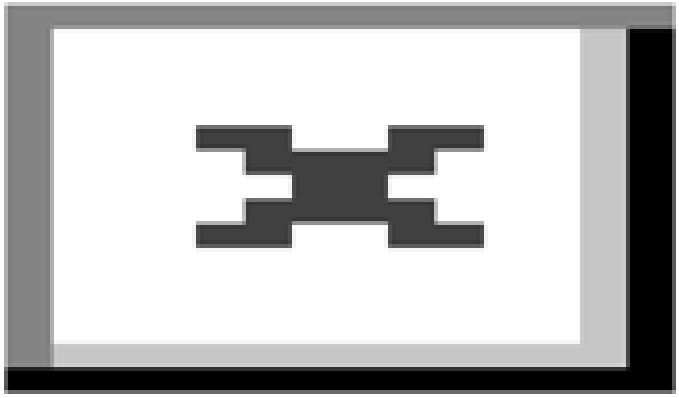
Sent with ProtonMail Secure Email.

------- 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.



COVID-19 gfx Mar 3



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 Jr(tCHFStDPH); tierome (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)(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 R (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; (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 R(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

1. 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"
4. The Ministry of Defence will provide support as needed
5. There will be increased government communication with parliament, the public and the media
6. Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. 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
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 R(tCHFStDPH); tlerome (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; (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(tCHESt(DPH); 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 coronavirus case 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.

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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; (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 R(tCHFStDPH); tlerome (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."

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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>; (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>; 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 <PadgettLG@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@uuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee.gatech@gm.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

1. 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 non-pharmaceutical public health measures;
2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. 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 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 R(tCHEStDPH); 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 <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 (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@usushs.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@usushs.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 (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) (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; 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 <PadgettLG@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@uoutbs.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; (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 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=8529f785-d97deef9-8529c6ba-0cc47adc5fa2-

ae7d3bffb047e588&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) (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>; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven J(#CHFStDPH)

<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@cghc.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 (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E892403213068787E7404A66715E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484422d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 18:19:40
Delivered Date:	2020/03/04 18:19:41

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787840AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:09:27
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
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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: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Tuesday, March 3, 2020 8:41 PM
To: Marcozzi, David <DMarcozzi@som.umaryland.edu>
Cc: alexander.eastman@hq.dhs.gov; 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) <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) HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; EVANS, 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; Wade, David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; KAUSHIK, 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; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Jolly, Brantley (OS/ASPR/EMMO) (CTR) <Brantley.Jolly@hhs.gov>; Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Mansoura, Monique K. <mmansoura@mitre.org>
Subject: Re: Red Dawn Rising Start Feb 29

When there is a will, there is a way. Another good example of last mile dispensing (food). I think the school buses and drivers remain great resources there. Tele-work needs to be in conjunction with dealing with the kids. The parents can't just stay home, they should be able to continue work.

I went to the church, the ED and various areas today to scout the crowd situations. I think online service should be encouraged.

------- Original Message -------
On Tuesday, March 3, 2020 8:16 PM, Marcozzi, David <DMarcozzi@som.umaryland.edu>wrote:

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

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https://em.umaryland.edu

Associate Professor

Department of Epidemiology and Public Health

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University of Maryland Medical Center

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Deputy Medical Director for Mobile Integrated Health/Community Paramedicine

Baltimore City Fire Department

https://protect2.fireeye.com/url?k=9537b258-c962bb4b-95378367-0cc47adb5650-4d2d9a2b6b5e2b71&u=https://fire.baltimorecity.gov/mobile-integrated-health-community-paramedicine

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Baltimore, Maryland 21201

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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@hq.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" (b)(6) "WILKINSON, THOMAS" <THOMAS.WILKINSON@hq.dhs.gov>, "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" <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" (b)(6) Lisa Koonin (b)(6) "HARVEY, 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)" <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" <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 Ju(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 <alexander.eastman@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
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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?

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) (b)(6) Lisa Koonin (b)(6) 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@iqt.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 Ju(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@cghc.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.

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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

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Director of Population Health

Department of Emergency Medicine

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Associate Professor

Department of Epidemiology and Public Health

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https://protect2.fireeye.com/url?k=a6357d65-fa607476-a6354c5a-0cc47adb5650-93f3c2e29a712423&u=https://fire.baltimorecity.gov/

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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" (b)(6)
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) "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" (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" <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 <PadgettLG@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Ju(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 coronavirus case 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); tlerome (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."

-

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>; (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>; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFSt.DPH) <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@eghe.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

1. • 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 non-pharmaceutical public health measures;
2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. • 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 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@usushs.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 <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 (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 Ju(tCHFSt.DPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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(tCHESt(DPH); tlerome (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 (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) (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; 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 <PadgettLG@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@eghe.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; Williams; 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); tlerome (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=17f1e7b6-4ba4eea5-17f1d689-0cc47adb5650-a5507e4372cc8b11&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) (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 <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 Ji(ICHFS(DPH) <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 (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787404A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484442d39-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:09:25
Delivered Date:	2020/03/03 21:09:27

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924D3243D6B7874DAA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:03
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
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From: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Wednesday, March 4, 2020 3:51 PM
To: Richard Hatchett <richard.hatchett@cepi.net>
Cc: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcNamara@westernu.edu>; 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) 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 <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

Richard, well said. It is in our community already. And I am happy at least I am able to make some hospitals and business leaders to act -- no face-to-face meetings, travel restriction, cancellation of big conferences, etc. They have everything to lose if anything bad happens so they implement the recommendations provided to them. I still don't know how the government works. I hope local will act accordingly. Those of you who are leading and in charge of hospital networks you can act right away and put in place the precautionary steps to mitigate any potential outbreak.

History should be on our side -- if we take note and act.

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 3:37 PM, Richard Hatchett <richard.hatchett@cepi.net>wrote:

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 J((CHFS(DPH); tlerome (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; (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@usushs.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@usushs.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@usushs.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); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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)(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); tlerome (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 J(0CHESt(DPH); tlerome (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

1. 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"
4. The Ministry of Defence will provide support as needed
5. There will be increased government communication with parliament, the public and the media
6. Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. 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
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 Mothard; Steven J(0CHFStDPH); tlerome (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(CHESt/DPH); tlerome (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 coronavirus case 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 J(tCHESfDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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_kebEJsGbGlwu95UvuDknNEWs7NP_2kXS17LgSTdYEMHcb8

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>; (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>; 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@eghe.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

1. 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 non-pharmaceutical public health measures;

2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

3. 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 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 J(0CHESt)DPH); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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 referenceed 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(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@eghe.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 Kosnin; 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 (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) (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; 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 Ju(tCHFSıDPH) <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@cghc.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 (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); tlerome (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=b556cdfc-e902d480-b556fcc3-0cc47adc5fa2-9069fecb600260e1&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 [redacted]
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>; [redacted]; [redacted]; 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) [redacted]; Lisa Koonin [redacted]; 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 <PadgettLG@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@cghc.org>; richard.hunt@hhs.gov <richard.hunt@hhs.gov>; Eva Lee [redacted]; 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 (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E892403243068787840A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>

Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484432d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 18:20:02
Delivered Date:	2020/03/04 18:20:03

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:08:55
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
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From: Marcozzi, David <DMarcozzi@som.umaryland.edu>
Sent: Tuesday, March 3, 2020 8:27 PM
To: Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>
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>; 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)

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Subject: Re: Red Dawn Rising Start Feb 29

Great idea Duane.

Defining thresholds for localities/cities/states to pull the trigger will be key. It will mitigate their reluctance if they have top cover.

From: Duane Caneva <duane.caneva@hq.dhs.gov>
Date: Tuesday, March 3, 2020 at 16:22
To: "Dr. Eva K Lee" <evalee-gatech@pm.me>, David Marcozzi <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>, "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" <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" (b)(6) Lisa Koonin (b)(6) "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" <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>, "Wade, David" <david.wade@hq.dhs.gov>, "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@usushs.edu" <danny.shiau@usushs.edu>, Danny Shiau <dshiau@cghe.org>, "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

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.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) (b)(6) Lisa Koonin (b)(6) 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@iqt.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@usushs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov
Subject: Re: Red Dawn Rising Start Feb 29

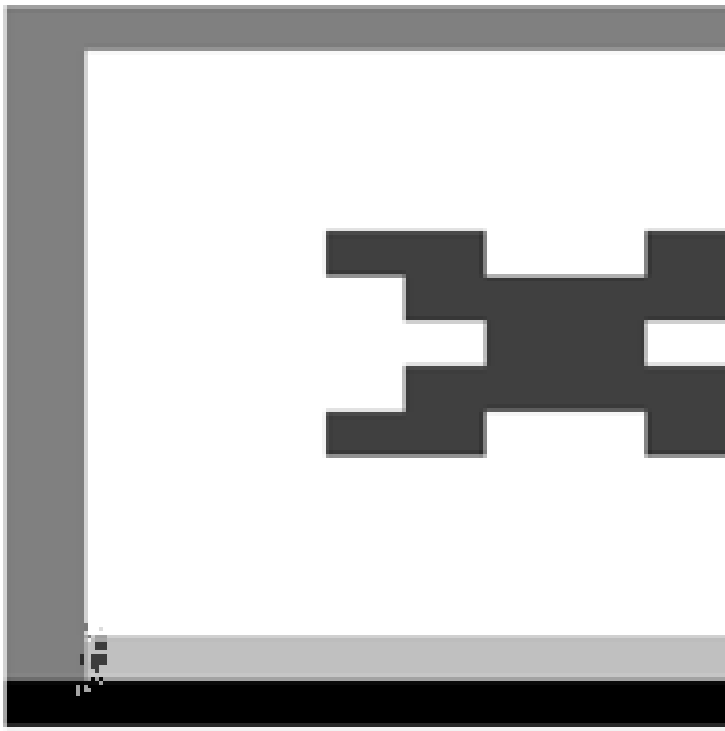
CAUTION: This email originated from outside of DHS. DO NOT click links or open attachments unless you recognize and/or trust the sender. Contact your component SOC with questions or concerns.

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.



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^a^ 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

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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

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Assistant Chief Medical Officer for Acute Care

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https://protect2.fireeye.com/url?k=4e9173b5-12c55a9e-4e91428a-0cc47a6d17cc-aa0005101e781b77&u=https://fire.baltimorecity.gov/

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

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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" (b)(6)
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) "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" (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" <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 <PadgettLG@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Steven Ju(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 coronavirus case 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 J(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_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 <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 (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@uuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee.gatech@gm.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

1. • 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 non-pharmaceutical public health measures;

2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. • 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 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 R(tCHFStDPH); tlerome (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 <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 (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>
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@uoulhs.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

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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) (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; 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@uouhs.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; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; MELISSA; HERBERT; Alexander; MARJEFRED; 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@uouhs.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=ff8e78a4-a3da518f-ff8e499b-0cc47a6d17cc-65b487c6a07c27dc&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) (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 <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 <PadgettLG@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/DrI.ee/

mobile: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243006878740A4A6074SE2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034753f35a4317aa74f4534844d39-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:08:54
Delivered Date:	2020/03/03 21:08:55

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40A6A6745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:18:55
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
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From: Carter Mecher <cmecher@charter.net>
Sent: Wednesday, March 4, 2020 8:32 AM
To: Richard Hatchett <richard.hatchett@cepi.net>; Tracey McNamara <tmcNamara@westernu.edu>; Dr. Eva Le(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>; 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) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usushs.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

I was asked to repeat the back of the envelope estimates of impact on a notional city of 3.3M using the attack rate from the cruise ship (20%). (See attached). Michael Callahan provided a good estimate of the relative requirements of a COVID patient in China vs. a flu patient. His rule of thumb was if a flu patient required X, a COVID patient required 2.5X. I assumed long hospital lengths of stay (sick elderly patients with pneumonia can stay in the hospital and the ICU a long time). I assumed 3 week hospital LOS and 14 day ICU LOS. Can easily adjust those parameters (was applying Michael's rule).

My question is for those of you who are familiar with the day to day operations of healthcare systems (ERs, acute inpatient care, ICU care) as well as outpatient care (use of telehealth). Do you think you could handle this *mild* scenario?

BLUF

Projections 90 Days
This city would be projected to experience a 19% increase above baseline in admissions over this 3 month period for acute hospital care, with about a 42% increase above baseline in true acute care demand (BDOC projections) due to longer LOS.

This city would be projected to experience a 53%-133% increase above baseline over this 3 month period in demand for ICU care (BDOC projections) due to longer ICU LOS.

ER demand for this subset (age 60+) and the under 60 group of 76K ER visits represents about a 21% increase over baseline over this 3 month period.

If we assume all the mildly ill 313K (260K age<60 and 53K age 60+), will be seeking outpatient care, and they will need 2 telehealth visits each, this represents about 626K visits or about a 52% increase compared to the baseline 1.2M PC visits a city of 3.3M normally encounters over a 3 month period.

And remember, demand is not constant over the 3 month period. It will rise exponentially, plateau and then fall. These estimates do not give you the full sense of what it will feel like at the peak.

Key Challenges

1. • ICU care (largest mismatch)—at peak demand ICUs will be overwhelmed
2. • ER care (a 21% increase over 3 months)—at peak demand ERs will be overwhelmed
3. • Outpatient care—I assumed that we would want to minimize face-to-face contact with outpatient clinic providers and leverage telephone/telehealth care as much as possible. That is going to be a very large volume of patients to manage via telephone care and telehealth (we have never done anything with telehealth on this scale before)

Sent from Mail for Windows 10

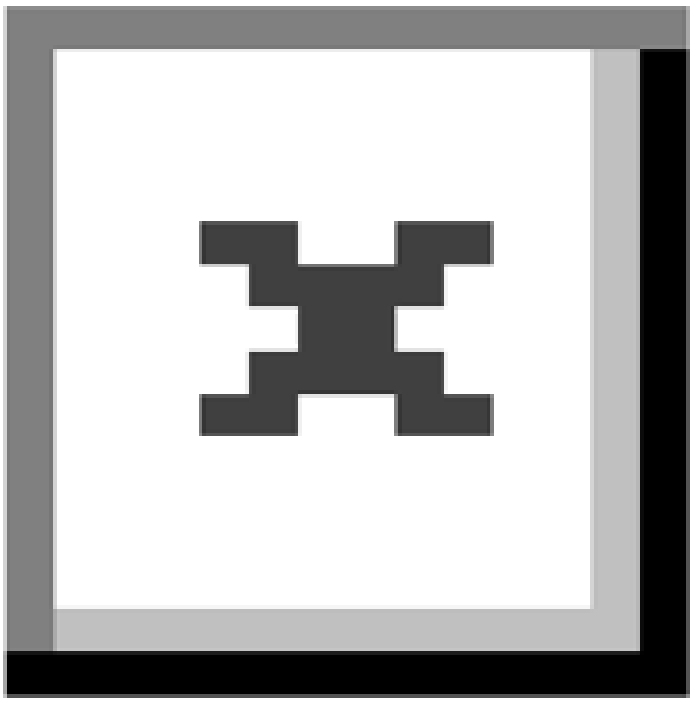
From: Richard Hatchett
Sent: Wednesday, March 4, 2020 7:52 AM
To: Carter Mecher; Tracey McNamara; Dr. Eva Lee
Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew 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

Seattle or Singapore?

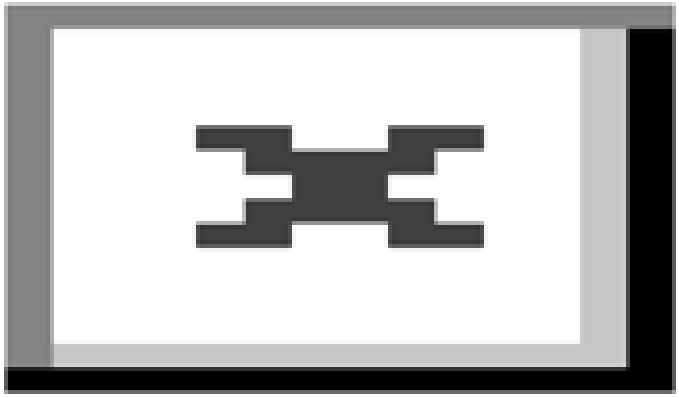
From: Carter Mecher <cmecher@charter.net>
Sent: 04 March 2020 12:44
To: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee (b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; 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>; (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>; 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 <PadgettLG@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@uouhs.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

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.



COVID-19 gfx Mar 3



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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 R(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.

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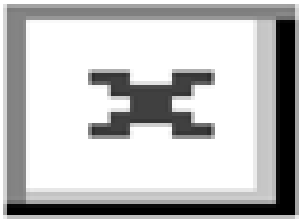
From: Carter Mecher
Sent: Wednesday, March 4, 2020 6:09 AM
Subject: RE: Red Dawn Rising Start Feb 29

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

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 R (CHFS DPH); 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 R (CHFS DPH); 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

1. • 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"
4. • The Ministry of Defence will provide support as needed
5. • There will be increased government communication with parliament, the public and the media
6. • Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. • 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
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 R(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 R(tCHFStDPH); tlerome (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 coronavirus case 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_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 <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 (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@uouhs.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

1. 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 non-pharmaceutical public health measures;
2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. 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 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 R (CHFSt DPH); tlerome (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 <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 (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 <PadgettG@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@uouhs.edu; Danny Shiau <dshiau@cahe.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@uouhs.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 (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) (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; 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 <DHandling@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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFSt:DPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.tantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@sahe.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 (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@uoulhs.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=aa6cbf8f-f639b6bf-aa6c8e50-0cc47a6a52de-bd07fac6288cc3bf&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) (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>; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven R(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@cahe.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: (b)(6)
(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E892403243068787404A6074SE2-JOHNSON, RO <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>
Sent Date:	2020/03/04 18:18:54
Delivered Date:	2020/03/04 18:18:55

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f2d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising, Start April 6, 15:00
Date:	2020/04/11 19:57:40
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
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330 Independence Avenue, S.W. Room 640 G
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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

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From: Richard Tubb (b)(6)
Sent: Saturday, April 11, 2020 7:57 PM
To: Dr. Eva Lee (b)(6)
Cc: Carter Mecher <cmecher@charter.net>; Lawler, James V <james.lawler@unmc.edu>; Hanfling, Dan <DHanfling@iqt.org>; Jerry Mothershead <jmothershead@patronusmedical.com>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; William Lang <wlang@worldclinic.com>; McGinn, Tom <Tom.McGinn@hq.dhs.gov>; Rob Darling, MD <rdarling@patronusmedical.com>; Dr. Eva K Lee <evalee-gatech@pm.me>; david.gruber@dshs.texas.gov; (b)(6) Ciottone,Gregory (HMFP - Emergency Medicine) <gciotton@bidmc.harvard.edu>; david.a.tarantino@cbp.dhs.gov; reddawn@mphise.us; Arthur Kellermann <arthur.kellermann@usuhs.edu>; Mecher, Carter (VA.GOV)

<carter.mecher@va.gov>; Jamison Day (b)(6) Logan, Linda L <llogan@cvm.tamu.edu>; Dodgen, Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@HHS.GOV>; Venkayya, Rajeev <rajeev.venkayya@takeda.com>; Ronny Jackson (b)(6) alexander.eastman@hq.dhs.gov; Mansoura, Monique K. <mmansoura@mitre.org>; LLogandakar (b)(6) Walters, William (STATE.GOV) <walterswaZ@state.gov>; Parker Jr, Gerald W <gparker@cvm.tamu.edu>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; EVANS, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; Kevin Montgomery <kevin@collaborate.org>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; DC <michelle.colby@usda.gov>; Matthew JtCIVtUSARMY (USA) (b)(6) Andy Desjardins, MD <adesjardins@patronusmedical.com>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Danny Shiau <danny.shiau@usuhs.edu>; Martin, Greg (state.gov) <MartinGJ@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Borio, Luciana <LBorio@iqt.org>; Redd, John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; KAUSHIK, SANGEETA <sangeeta.kaushik@hq.dhs.gov>; eric.mcdonald@sdcounty.ca.gov; CHRISTOPHER ALLEN (b)(6) ; Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Baric, Ralph S <rbaric@email.unc.edu>; Schnitzer, Jay J. <jschnitzer@mitre.org>; jwleduc@utmb.edu; HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; Lisa Koonin (b)(6) ; Larry G <PadgetLG@state.gov>; mvcallahan@mgh.harvard.edu; Ignacio, Joselito (FEMA.DHS.GOV) <joselito.ignacio@fema.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Will Gaskins <will.gaskins@efiia.com>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Lauren Johnston <ljohnston@patronusmedical.com>; Steven Jt(tCHFStDPH] <steven.stack@ky.gov>; Tom Bossert <tom.bossert@me.com>; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; HAMILTON, CAMERON <cameron.hamilton@hq.dhs.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; Wade, David <david.wade@hq.dhs.gov>; Lewis Hofmann (b)(6) WILKINSON, THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; CharitytA@CDPH <Charity.Dean@cdph.ca.gov>; Taylor, Justin (CTR) <justin.taylor@associates.hq.dhs.gov>; Marinissen, Maria (HHS/OS/OGA) <Maria.Marinissen@hhs.gov>; Sutter, Mark <mark.sutter@hq.dhs.gov>; Mark Keim, MD MBA <mark@disasterdoc.org>; Richard Hatchett <richard.hatchett@cepi.net>; McLeod James <jmcleod@patronusmedical.com>; Wine G.C. <gcwine@patronusmedical.com>; Dan Carlin <dcarlin@worldclinic.com>; Krohmer, Jon (dot.gov) <Jon.krohmer@dot.gov>; Jolly, Brantley (OS/ASPR/EMMO) (CTR) <Brantley.Jolly@hhs.gov>; Hart,Alexander (APHMFP - Emergency Medicine) <ahart1@bidmc.harvard.edu>; You, Edward H. (WMD) (FBI) (b)(6)

Subject: Re: Red Dawn Rolling, Start April 6, 15:00

Wild question for anybody?

I would be curious to know the sex and G6PD status of those who suffered cytokine storm, ARDS, and death in Italy, Spain, France; as well as the sex, G6PD status, and ethnic heritage of those who suffered cytokine storm, ARDS, other severe complications and death in NYC, Boston, Philadelphia; and as well as the sex, G6PD status, and ethnic heritage of those who suffered cytokine storm, ARDS, and death in the African American population —and their comorbidities...relative to their counterparts and the general relevant populations. (perhaps with the expanded use of HCQ more screening for G6PD deficiency is being done...similar to what we used to do in the military?)

Any chance anybody has that data?

Sent from my iPad

On Apr 11, 2020, at 9:58 AM, Dr. Eva Lee (b)(6) wrote:

Carter, from the ground in NYC, it's reported that many deaths were not even reported as covid-19, but just buried, same as in Wuhan. I am as usual, very confused by the president when he said NYC has everything -- PPE, N95, test kits, beds, etc. There're indeed many beds they built, but very few patients could be transferred because of lack of resources in those new setup sites. But death toll will continue until Harlem, Bronx and all those very poor city hospitals get PPE and everything that they need. They have not much of any of these necessary resources. Otherwise those patients will continue to die, unfortunately. As NYP mentioned the clinical teams coming in from UCSF and Cleveland, the other places complain about nurses are getting sick and so many patients are dying. It is indeed a stark contrast. African Americans may have more chronic diseases with poor healthcare access, and covid-19 amplifies it because without definitive treatment, sustaining life in a clinical supportive environment is most critical.

On Sat, Apr 11, 2020 at 9:42 AM Carter Mecher <cmecher@charter.net> wrote:
Am pulling every states IL1 curve from ILINet and will send out the entire collection to the group. From that data, I think you will be able to see which states likely had significant levels of community transmission by the time the NPIs were implemented and which states did not. I think one could correlate this to the outcomes we are now seeing. It is a little tedious because I have no simple way of doing it other than doing one state at a time from the CDC data. Have also pulled the number of ILINet visits to each state (both IL1+ visits and total outpatient visits) for week 5 (baseline during flu season) and now week 14. This provides a state by state comparison in terms of how aggressively each state shifted away from F2F outpatient visits. I'll sort states from best to worst.

Here is data on how the US compares to a number of countries (Spain, France, Italy, UK, Germany, Sweden, Czech Republic). The US is doing much better than Spain, France, Italy, UK and Sweden. Germany is doing better. And the Czech Republic is really doing well. The US is tracking just below Wuhan.
<9F3AFBEAFFFF4319A2D953B966EF30E9.png>
Here is a close up without the reference curves of Wuhan and Hubei. France is overtaking Italy. The UK is approaching Italy and Sweden isn't far behind (all worse than Wuhan). The US is tracking lower.
<7E8FBEA11E7B419C9603E211A0D37936.png>
Sent from Mail for Windows 10

From: Carter Mecher
Sent: Saturday, April 11, 2020 8:43 AM
Subject: RE: Red Dawn Rolling, Start April 6, 15:00

Here is the latest data on the states (plus DC and PR). Still seeing the equivalent of 6-7 Philadelphias. Pretty amazing the degree of suppression we are seeing from the other 43 states, DC and PR. NY state and NYC are really in a category by themselves. They are tracing a curve that is worse than Lombardy. Attached is the data, if anyone is interested in looking at it more carefully. This is pretty much the 2007 PNAS paper we wrote on the 1918 pandemic, writing itself in real time for the 2020 pandemic. Nothing really new. Like 1918, the timing of NPIs matters. This data helps to see when you need to pull the trigger for suppression. Easy to see the grouping of states above the Wuhan curve and below the Wuhan curve.

Error! Filename not specified.

Close up without reference curves.

Error! Filename not specified.

Sent from Mail for Windows 10

From: Carter Mecher
Sent: Saturday, April 11, 2020 7:02 AM
To: Lawler, James V; Hanfling, Dan; Dr. Eva Lee; Jerry Mothershead
Cc: Caneva, Duane; Richard Tubb; William Lang; McGinn, Tom; Rob Darling, MD; Dr. Eva K Lee; Gruber,David (DSHS); (b)(6); Ciottone,Gregory (HMFP - Emergency Medicine); TARANTINO, DAVID A; reddawn@mphise.us; Arthur Kellermann; Mecher, Carter; Jamison Day; Logan, Linda L; Dodgen, Daniel (OS/ASPR/SPPR); Venkayya, Rajeev; Ronny Jackson; Eastman, Alexander; Mansoura, Monique K.; LLegandakar; Walters, William (STATE.GOV); Parker Jr, Gerald W; DeBord, Kristin (OS/ASPR/SPPR); EVANS, MARIEFRED; Kevin Montgomery; Phillips, Sally (OS/ASPR/SPPR); DC; Matthew JtCIV(USARMY (USA); Andy Desjardins, MD; Fantinato, Jessica (USDA.GOV); Yeskey, Kevin; Danny Shiau; Martin, Greg (state.gov); Ryan Morhard; Disbrow, Gary (OS/ASPR/BARDA); Borio, Luciana; Redd, John (OS/ASPR/SPPR); KAUSHIK, SANGEETA; Eric (San Diego County); CHRISTOPHER ALLEN; Cordts, Jerome (CTR); Baric, Ralph S; Schnitzer, Jay J.; jwleduc@utmb.edu; HARVEY, MELISSA; Lisa Koonin; Larry G; M.D.; Ignacio, Joselito; David; Hassell, David (Chris) (OS/ASPR/IO); Will Gaskins; Lee, Scott (OS/ASPR/EMMO); Lauren Johnston; Steven Jt(tCHFStDPH); Tom Bossert; Johnson, Robert (OS/ASPR/BARDA); HAMILTON, CAMERON; Adams, Jerome (HHS/OASH); Wade, David; Lewis Hofmann; WILKINSON, THOMAS; WOLFE, HERBERT; ChanityrA@CDPH; Taylor, Justin (CTR); Marinissen, Maria (HHS/OS/OGA); Sutter, Mark; Mark Keim, MD MBA; Richard Hatchett; McLeod James; Wine G.C.; Dan Carlin; Krohmer, Jon (NHTSA); Jolly, Brantley (OS/ASPR/EMMO) (CTR); Hart,Alexander (APHMFP - Emergency Medicine); You, Edward H. (WMD) (FBI)
Subject: RE: Red Dawn Rolling, Start April 6, 15:00

Take a look below at what grocery stores are doing. This is just one example. Businesses are adapting—trying to both help suppress transmission yet keep the economy functioning (and also helping to keep the work place the safe place). I think that needs to be the next message—"Make the work place the safe place." Do everything we can to achieve that goal and we can get our economy moving again.

We need to pivot to the next phase of the response—"the dance." We don't need to be fancy. I would recommend getting something simple out there now (set of simple rules or layers of Swiss cheese, to move forward).

1. • We are approaching the summer break (about 1 month away). Being practical, education will need to write off the remainder of this school year and just treat the summer break as we usually do (so continue summer vacation for school age kids with tentative plans for reopening in the fall as usual but also preparing for the necessity for online education next fall at K-12 and colleges/universities in the fall). Now is the time to prepare online curricula. The economic impact of simply keeping the schools closed over the summer as we usually do is minimal, yet we accrue the benefits in terms of sustaining this NPI and its impact on disease transmission.
2. • Continue to promote telework where it makes sense. Businesses have learned that employees can be effective doing their work remotely. Where it makes sense, continue the practice. 2020 is much different from 2007 (when we first published the community mitigation guidance). The downside to the economy is just as retail has moved from bricks and mortar (abandoning malls) to online commerce, we could see the same with office space. This pandemic served as an accelerant.
3. • Promote face masks for the general public--not to protect against inhaling the virus, but as universal source control—"you protect me, and I protect you" given the high percentage of asymptomatic infected individuals who are unaware that they may be infectious. The result of this pandemic is that the West will adopt practices already well established in Asia.
4. • Businesses implement measures to "make the workplace the safe place"—temp screenings for employees, use of masks for universal source control (no shoes, no shirt, no mask, no service), widely available hand gel, telework where it makes sense, reconfiguring spaces to promote social distancing, staggered shifts, alternatives to F2F meetings.
5. • Expanding testing, apps for getting tested (scheduling a test), apps for tracking/contact tracing, recruiting public health army to assist in contact tracing. This is the game changer—to be effective in backing away from the NPIs that are choking our economy, we must have this capability humming. Every effort must be made to move this capability forward ASAP. Although much is being stated about serology (issuing a certificate of immunity), the overall attack rate from this wave (except for NY and a handful of states) will be down around 1-2% due to the level of suppression we likely achieved thru NPIs. That is not going to prove to be that important.
6. • Healthcare, especially outpatient care, being more aggressive in terms of telehealth/telephone care. The ILINet visits reported by CDC yesterday were still 700K visits (compared to 1.5M around week 9). That means that doctors offices only cut back about half of their F2F visits during this pandemic wave in the US. That was a failure on the part of US healthcare. We need to do better, That word needs to get out more effectively from healthcare leaders and public health. Frankly, CDC and public health said very little about this (or at least I heard very little said by either to promote this aggressively as a strategy).
7. • Preparing for the fall wave. We need to apply what we have learned about when we need to pull the trigger on NPIs in the fall and what those NPIs need to be—perhaps more

like we proposed in 2007 and not the economy crippling approach we implemented. Looking at the data we have gathered, I would recommend pulling the trigger no later than the first death per 10 million population (essentially first death in a state of 10M or more).

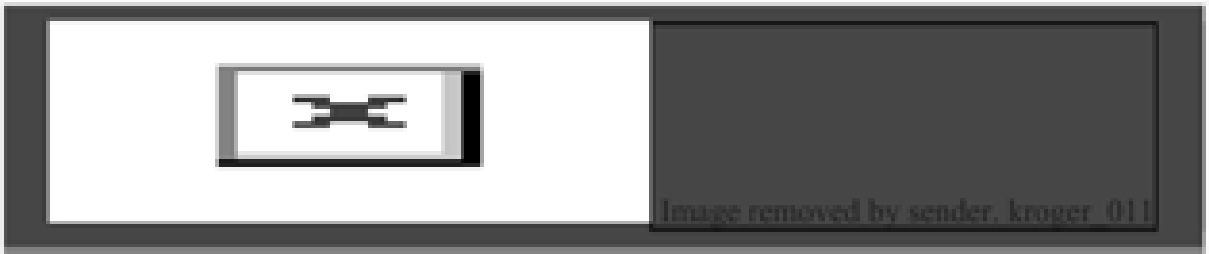
8. • Vaccine development and mass vaccination campaign.

The businesses that will prove the most difficult to return to some semblance of normalcy will be restaurants and bars. I think fast food restaurants will pop back pretty quickly, but sit down restaurants (except for carry out) will struggle. They live and die on small margins and would have a tough time serving smaller number of customers (fewer tables spread farther apart). And the travel/hospitality industry (tourism, hotels, airlines, taxis, travel agencies, Uber, etc.) will also prove to be slow to return. And with travel down, the oil industry will be crippled due to the depressed demand and low price. States that are typically impacted by the boom/bust cycle of oil (North Dakota, TX, etc.), will feel this additional burden. But crisis also brings new opportunities and entrepreneurs and businesses will sprout up to fill new niches that we likely can't anticipate (but the successful entrepreneurs can and will).

Sent from Mail for Windows 10

From: Kroger
Sent: Friday, April 10, 2020 7:07 PM
To: cmecher@charter.net
Subject: Health, Safety &Store Updates – The Latest from Kroger

Stay informed about the steps we're taking to care for you and our associates. View in your browser



Health, Safety &Store Updates

Dear Valued Customer,

Our associates – from the ones behind the scenes like our technology, supply chain and manufacturing experts…to our amazing, dedicated store teams –

are working around the clock to provide you with access to fresh, affordable food and products. Thanks to everyone who has shared an uplifting story with me about our helpful associates.

As an essential business, we're also taking additional steps to help keep our customers and associates safe and to flatten the curve. For example, earlier this week we announced that we're limiting the number of people in our stores at a time by 50% or more, to allow for better physical distancing.

When you shop with us, we ask that you consider a few small things to help you get in and out of the store more quickly. Please shop responsibly, make a list and only purchase what you need. And when possible, shop alone or go to Kroger.com to schedule a pickup or delivery order.

Thank you for shopping with us and for being a loyal customer.

Sincerely,

Rodney McMullen
Chairman and CEO

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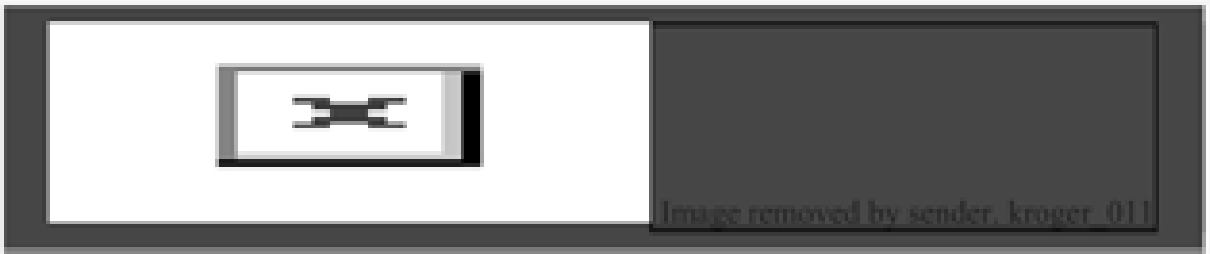
From: Kroger
Sent: Tuesday, April 7, 2020 9:07 PM
To: cmecher@charter.net
Subject: Health, Safety &Store Updates – The Latest from Kroger

Stay informed about the steps we're taking to care for you and our associates. View in your browser



Health, Safety &Store Updates

"During this pandemic, we are committed to adopting preventive measures to help protect the safety and health of our associates, customers and communities."

- Mary Ellen Adcock,
Senior Vice President of Operations

Shopping with Us

- **Beginning today, Kroger will start limiting the number of customers our stores** at one time to allow for proper social distancing.
- The number of customers allowed in our stores will be up to 50% of buildi code capacity, which varies by store.

- Our industry-leading QueVision technology will give our associates an accurate count of customers entering and exiting our stores at all times.
- Once a store is at capacity, our **associates will manage queues outside the building.**

Learn More

Caring for Our Associates

- **Kroger is encouraging associates to wear protective masks and gloves** and has ordered masks for associates nationwide, with supplies scheduled to arrive at all locations by the end of this week.
- **We're completing our addition of plexiglass partitions** at all check lanes, Pharmacy counters and Starbucks registers.
- To learn more about how we're supporting our associates, please click here.

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Sent from Mail for Windows 10

From: Lawler, James V
Sent: Friday, April 10, 2020 4:47 PM
To: Hanfling, Dan; Dr. Eva Lee; Jerry Mothershead
Cc: Carter Mecher; Caneva, Duane; Richard Tubb; William Lang; McGinn, Tom; Rob Darling, MD; Dr. Eva K Lee; Gruber,David (DSHS); (b)(6) Ciottone,Gregory (HMFP - Emergency Medicine); TARANTINO, DAVID A; reddawn@mphise.us; Arthur Kellermann;

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Subject: Re: Red Dawn Rolling, Start April 6, 15:00

Not sure about the data from our lab yet in terms of effect on yield, but I know that our state public health lab (that is hosted within our university) is pooling 5 samples at a time. The more you pool and dilute a specimen, the more you spin the wheel of stochastics that decreases effective LOD and sensitivity. I don't think most molecular dx experts would recommend going down below 1:5.

James Lawler, MD, MPH, FIDSA
m: 703.407.6431
james.lawler@unmc.edu

From: Dan Hanfling <DHanfling@igt.org>
Date: Friday, April 10, 2020 at 2:56 PM
To: "Dr. Eva Lee" (b)(6) Jerry Mothershead <jmothershead@patronusmedical.com>
Cc: Carter Mecher <cmecher@charter.net>, "Caneva, Duane" <duane.caneva@hq.dhs.gov>, Richard Tubb (b)(6) William Lang <wlang@worldclinic.com>, "McGinn, Tom" <Tom.McGinn@hq.dhs.gov>, "Rob Darling, MD" <rdarling@patronusmedical.com>, "Dr. Eva K Lee" <evalee-gatech@pm.me>, "Gruber,David (DSHS)" <David.Gruber@dshs.texas.gov>, (b)(6) "Ciottone,Gregory (HMFP - Emergency Medicine)" <gciotton@bidmc.harvard.edu>, "TARANTINO, DAVID A" <david.a.tarantino@cbp.dhs.gov>, "Lawler, James V" <james.lawler@unmc.edu>, "reddawn@mphise.us" <reddawn@mphise.us>, Arthur Kellermann <arthur.kellermann@usuhs.edu>, "Mecher, Carter" <Carter.Mecher@va.gov>, Jamison Day (b)(6) "Logan, Linda L" <llogan@cvm.tamu.edu>, "Dodgen, Daniel (OS/ASPR/SPPR)" <Daniel.Dodgen@hhs.gov>, "Venkayya, Rajeev" <rajeev.venkayya@takeda.com>, Ronny Jackson (b)(6) , "Eastman,

Alexander" <alexander.eastman@hq.dhs.gov>, "Mansoura, Monique K." <mmansoura@mitre.org>, LLogandakar (b)(6) "Walters, William (STATE.GOV)" <walterswa2@state.gov>, "Parker Jr, Gerald W" <gparker@cvm.tamu.edu>, "DeBord, Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "EVANS, MARIEFRED" <mariefred.evans@associates.hq.dhs.gov>, Kevin Montgomery <kevin@collaborate.org>, "Phillips, Sally (OS/ASPR/SPPR)" <Sally.Phillips@hhs.gov>, DC <michelle.colby@usda.gov>, "Matthew JtCIVtUSARMY (USA)" (b)(6) "Andy Desjardins, MD" <adesjardins@patronusmedical.com>, "Fantinato, Jessica (USDA.GOV)" <jessica.fantinato@usda.gov>, "Yeskey, Kevin" <kevin.yeskey@hhs.gov>, Danny Shiau <danny.shiau@usuhs.edu>, "Martin, Greg (state.gov)" <MartinGJ@state.gov>, Ryan Morhard <Ryan.Morhard@weforum.org>, "Disbrow, Gary (OS/ASPR/BARDA)" <Gary.Disbrow@hhs.gov>, "Borio, Luciana" <LBorio@iqt.org>, "Redd, John (OS/ASPR/SPPR)" <John.Redd@hhs.gov>, "KAUSHIK, SANGEETA" <sangeeta.kaushik@hq.dhs.gov>, "Eric (San Diego County)" <eric.mcdonald@sdcounty.ca.gov>, CHRISTOPHER ALLEN (b)(6) "Cordts, Jerome (CTR)" <jerome.cordts@associates.hq.dhs.gov>, "Baric, Ralph S" <rbaric@email.unc.edu>, "Schnitzer, Jay J." <jschnitzer@mitre.org>, "jwleduc@utmb.edu" <jwleduc@utmb.edu>, "HARVEY, MELISSA" <melissa.harvey@hq.dhs.gov>, Lisa Koonin (b)(6) Larry G <PadgetLG@state.gov>, "Callahan, m." <MVCALLAHAN@mgh.harvard.edu>, "Ignacio, Joselito" <joselito.ignacio@fema.dhs.gov>, David <DMarcozzi@som.umaryland.edu>, "Hassell, David (Chris) (OS/ASPR/IO)" <David.Hassell@hhs.gov>, Will Gaskins <will.gaskins@effia.com>, "Lee, Scott (OS/ASPR/EMMO)" <Scott.Lee@hhs.gov>, Lauren Johnston <ljohnston@patronusmedical.com>, "Steven Jt(tCHFStDPH)" <steven.stack@ky.gov>, Tom Bossert <tom.bossert@me.com>, "Johnson, Robert (OS/ASPR/BARDA)" <Robert.Johnson@hhs.gov>, "HAMILTON, CAMERON" <cameron.hamilton@hq.dhs.gov>, "Adams, Jerome (HHS/OASH)" <Jerome.Adams@hhs.gov>, "Wade, David" <david.wade@hq.dhs.gov>, Lewis Hofmann (b)(6) "WILKINSON, THOMAS" <THOMAS.WILKINSON@hq.dhs.gov>, "WOLFE, HERBERT" <HERBERT.WOLFE@hq.dhs.gov>, "CharitytA@CDPH" <Charity.Dean@cdph.ca.gov>, "Taylor, Justin (CTR)" <justin.taylor@associates.hq.dhs.gov>, "Marinissen, Maria (HHS/OS/OGA)" <Maria.Marinissen@hhs.gov>, "Sutter, Mark" <mark.sutter@hq.dhs.gov>, "Mark Keim, MD MBA" <mark@disasterdoc.org>, Richard Hatchett <richard.hatchett@cepi.net>, McLeod James <jmcleod@patronusmedical.com>, "Wine G.C." <gcwine@patronusmedical.com>, Dan Carlin <dcarlin@worldclinic.com>, "Krohmer, Jon (NHTSA)" <jon.krohmer@dot.gov>, "Jolly, Brantley (OS/ASPR/EMMO) (CTR)" <Brantley.Jolly@hhs.gov>, "Hart,Alexander (APHMFP - Emergency Medicine)" <ahart1@bidmc.harvard.edu>, "You, Edward H. (WMD) (FBI)" (b)(6)

Subject: RE: Red Dawn Rolling, Start April 6, 15:00

Non-UNMC email

To Jerry's question regarding batched (pooled) testing – see this piece in the WaPo and two papers (Texas A&M/WHO/ICMR and Technion) describing their experience. The WaPo article also alludes to the Nebraska experience, which James may be able to provide a bit more insight on.

This is a strategy that is routinely used in blood screening – the idea here in this outbreak would be to reserve precious reagent. Estimated false negative rates range up to 10% (in the Israeli experience, per their paper). Not sure what the Nebraska yield has been to date.

Dan

From: Dr. Eva Lee (b)(6)
Sent: Friday, April 10, 2020 3:40 PM
To: Jerry Mothershead <jmothershead@patronusmedical.com>
Cc: Carter Mecher <cmecher@charter.net>; Caneva, Duane <duane.caneva@hq.dhs.gov>; Richard Tubb (b)(6) >; William Lang <wlang@worldclinic.com>; McGinn, Tom <Tom.McGinn@hq.dhs.gov>; Rob Darling, MD <rdarling@patronusmedical.com>; Dr. Eva K Lee <evalee-gatech@pm.me>; Gruber,David (DSHS) <David.Gruber@dshs.texas.gov>; (b)(6) Ciottone,Gregory (HMFP - Emergency Medicine) <gciotton@bidmc.harvard.edu>; Hanfling, Dan <DHanfling@iqt.org>; TARANTINO, DAVID A <david.a.tarantino@cbp.dhs.gov>; Lawler, James V <james.lawler@unmc.edu>; reddawn@mphise.us; Arthur Kellermann <arthur.kellermann@usuhs.edu>; Mecher, Carter <Carter.Mecher@va.gov>; Jamison Day (b)(6) Logan, Linda L <llogan@cvm.tamu.edu>; Dodgen, Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@hhs.gov>; Venkayya, Rajeev <rajeev.venkayya@takeda.com>; Ronny Jackson (b)(6) Eastman, Alexander <alexander.eastman@hq.dhs.gov>; Mansoura, Monique K. <mmansoura@mitre.org>; LLogandakar (b)(6) Walters, William (STATE.GOV) <walterswa2@state.gov>; Parker Jr, Gerald W <gparker@cvm.tamu.edu>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; EVANS, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; Kevin Montgomery <kevin@collaborate.org>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; DC <michelle.colby@usda.gov>; Matthew JtCIVtUSARMY (USA) (b)(6) ; Andy Desjardins, MD <adesjardins@patronusmedical.com>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; Yeskey, Kevin <kevin.yeskey@hhs.gov>; Danny Shiau <danny.shiau@usuhs.edu>; Martin, Greg (state.gov) <MartinGJ@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Borio, Luciana <LBorio@iqt.org>; Redd, John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; KAUSHIK, SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Eric (San Diego County) <eric.mcdonald@sdcounty.ca.gov>; CHRISTOPHER ALLEN (b)(6) Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Baric, Ralph S <rbaric@email.unc.edu>; Schnitzer, Jay J. <jschnitzer@mitre.org>; jwleduc@utmb.edu; HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; Lisa Koonin (b)(6) ; Larry G <PadgettLG@state.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Ignacio, Joselito <joselito.ignacio@fema.dhs.gov>; David <DMarcozzi@som.umaryland.edu>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; Will Gaskins <will.gaskins@effia.com>; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Lauren Johnston <ljohnston@patronusmedical.com>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Tom Bossert <tom.bossert@me.com>; Johnson, Robert (OS/ASPR/BARDA)

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Subject: Re: Red Dawn Rolling, Start April 6, 15:00

My bad, I forgot to attach the Switzerland infection graph and the testing graph was only up to April 5 (I forgot to move the date). Apologize. Here're the two graphs. But please do make sure you read through everything regarding testing and saving lives. They remain very critical to every State and for the high-risk ones, saving lives part require effort to those communities that do not have much resources. UCSF and Cleveland Clinic clinical teams are going to NYP, not to Harlem nor Bronx.

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On Fri, Apr 10, 2020 at 3:29 PM Dr. Eva Lee (b)(6) wrote:

> I am not sure I understand what you mean. Yes, they swab a whole bunch of people and those testing kits are then processed in parallel. Yes. These are either drive-through or done to the hospital patients.
>
> No one is doing a test and sit there to wait for the result for one patient. No.
>
> On Fri, Apr 10, 2020 at 3:25 PM Jerry Mothershead <jmothershead@patronusmedical.com>wrote:
>
> > What about batch testing? Test 100 people at once...eg, swab 100 people and run the test on all 100. If negative they are all clear if positive retest 25, 4 times, etc. Cover more ground with fewer tests.
> >
> > On Fri, Apr 10, 2020, 15:11 Dr. Eva Lee (b)(6) wrote:
> >
> > > Sorry silence for a while since I was drowned by all the graphs and also calls from frontline workers asking why they got infected even on N95 and PPE. Here's some updates and important info on testing that everyone must know:

1. **NYP statistics** For the first time on April 8, they have more discharged than admitted. Bad news is that number of patients require ventilators are on the rise.

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Personnel: The hospital is overwhelmed, and beds are pretty packed, and they are running short of staff also. They will have clinical teams from UCSF and Cleveland Clinic to add to their personnel.

N95 masks: Besides covid-19 providers, they're now providing to ED and inpatients, since many may be covid-19 also. Still shortage and still are looking at ways to re-sterilize and re-process. They are also trying to re-sterilize the ventilator hoses.

Tests: start testing sick healthcare workers with symptoms. Please see attached. Worth reading and to be on alert for providers.

2. **Treatment** There continues to have no proven therapy for covid-19. Disease is in 3 stages:

- Viral infection
- inflammatory response where the immune system is essentially on overdrive
- if that continues that could lead to complications and tissue injury (recall I mentioned about the deep lung tissue scars)

investigational approaches

- Antiviral Remdesivir – interfere with virus, given to many patients – don't know if it works yet.
- Immunomodulators – that change the way the immune response works

- hydroxychloroquine – for Malaria and some autoimmune diseases e.g., lupus and rheumatoid arthritis. In the test tube, it does have activities against the virus that causes covid-19. Available in the market. Without convincing data, doctors have been offered to patients on a case by case basis.

3. **Testing Testing remains extremely important**. Again what you are seeing in NYC in terms of infection is not because R0 is 6. R0 is not 6. On the ground, we are seeing many *sick* patients who are being turned away from testing because the hospitals run out of testing kits. So yes, you will see infection continue to rise (see below why) and you must test and take them out.

You must test, test and test more, isolate them and stop them from spreading into the community. Also, you must do strategic sampling testing, you cannot just test the ones who are sick/symptoms. Ok I know your hands are tied with limited resources. Find the testing kits and get enough for your region. You need them now and if you want to return to business, then you must have them beyond now. So get use to the tests and make as many as possible for availability and become really efficient in it.

Blood test – serology tests – looking for patients with immunity to covid-19. This may turn out to be the best possibility for vaccine development. Keep in mind SARS vaccine never works for human because it's too toxic. So back to the basic may be our best way to beat the virus.

4. **Saving lives** Ventilators, personnel, and bed resources remain ESSENTIAL. Below is the infection trend of Germany and Italy – almost identical. The only difference – Germany's hospitals are better equipped with ample number of ventilators. This remains seriously critical. Some of the poorest city hospitals in NYC remains totally under-staffed, not enough ventilators, have no PPE, use a single N95 masks for a whole week (with nothing to protect the N95) and simply they are losing their patients (and the healthcare workers too). So we must pump the resources into these places. Please do. So for all those at risks cities, that is what they need. And they must have as many testing kits as possible to test by sampling, not just on those with symptoms, and must be on those without. Please direct resources to the poorest neighborhood in NYC and to other at risk regions This is very very urgent.

5. **How to sustain the low rate for those with NPI implemented early.** I am very happy to know that early NPI implementation clearly shows evidence that it works to slow down the spread. You probably know we are in an extraordinary fragile position. So testing is your good friend. You must test fast enough to off-set any type of potential community outbreak.

I am also very curious how rapid testing can give you one step ahead of the game. Here's Switzerland, they test the most and their infected graph is very much in control. That is, all of you in states that are doing well, test diligently. You have to sustain it and bring it down as low as possible. Then we will do the next phase.

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6. **Protection of healthcare workers** So part of my distress yesterday was from calls from healthcare workers who wore PPE and still got infected (and seriously sick). They asked me why. Clearly the paper James and other have showed – surface they touch after they take off their PPE could be contaminated. Simply, the whole working environment they're in is seriously contaminated. The shedding is so serious. So please do shower – after you take your PPE off and shower at home too. Yes, the water is good for you. But more importantly, the PPE worn –many of them – don't really cover the face entirely. That's why I like those ultralight face shields. Use them.

To share a personal story – I was in Africa helping with some diseases back in 2009. I was covered quite well, but my eyes were exposed since I don't wear any glasses. Anyway, I got an infection and my eye is still not quite the same, still infected and flare up whenever it has a chance, even though the doctor had already cut off two pieces from my eyelid. My ophthalmologist can only say that I have contracted some viral infection, not contagious, but he doesn't know what it is and hence my immune system has to fight. Ok, I am not so strong, since I am still fighting that little unknown virus.

So please be very very careful as you treat your patients. Redundancy is good in the protection. But you must take great care as you shed your PPE off – because that's when you are most vulnerable..

On Wed, Apr 8, 2020 at 7:01 PM Carter Mecher <cmecher@charter.net>wrote:

The death data from NY is alarming. Nathaniel and others in NY, how does this data comport with what you seeing in terms of medical surge? The death curve is even steeper than Lombardy. NYC is already at ~500 deaths per million (Lombardy is currently at 1,000 deaths per million). It looks like NYC could shoot past Lombardy. I would expect that ICU admissions to correlate with deaths unless NYC is seeing a high rate of deaths out of hospital. Average all-cause deaths in NYC normally average about 200 per day. Yesterday, there were 716 COVID deaths in NYC. NJ is following a similar trajectory. CT, MI, LA, MA and RI are following a trajectory intermediate between Lombardy and Wuhan. IL is moving toward this group.

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Sent from Mail [gcc01.safelinks.protection.outlook.com] for Windows 10

From: Caneva, Duane
Sent: Wednesday, April 8, 2020 1:33 PM
To: Carter Mecher; Richard Tubb
Cc: William Lang; Eva Lee; McGinn, Tom; Rob Darling, MD; Dr. Eva K Lee; Gruber,David (DSHS); (b)(6) ; Ciottone,Gregory (HMFP - Emergency Medicine); Hanfling, Dan; TARANTINO, DAVID A; Lawler, James V; reddawn@mphise.us; Arthur Kellermann; Mecher, Carter; Jamison Day; Logan, Linda L; Dodgen, Daniel (OS/ASPR/SPPR); Venkayya, Rajeev; Ronny Jackson; Eastman, Alexander; Mansoura, Monique K.; LLogandakar; Walters, William (STATE.GOV); Parker Jr, Gerald W; DeBord, Kristin (OS/ASPR/SPPR); EVANS, MARIEFRED; Kevin Montgomery; Phillips, Sally (OS/ASPR/SPPR); DC; Matthew JtCIVtUSARMY (USA); Andy Desjardins, MD; Fantinato, Jessica (USDA.GOV); Yeskey, Kevin; Danny Shiau; Martin, Greg (state.gov); Ryan Morhard; Disbrow, Gary (OS/ASPR/BARDA); Borio, Luciana; Redd, John (OS/ASPR/SPPR); KAUSHIK, SANGEETA; Eric (San Diego County); CHRISTOPHER ALLEN; Cordts, Jerome (CTR); Baric, Ralph S; Schnitzer, Jay J.; jwleduc@utmb.edu; HARVEY, MELISSA; Lisa Koonin; Larry G; M.D.; Ignacio, Joselito; David; Hassell, David (Chris) (OS/ASPR/IO); Will Gaskins; Lee, Scott (OS/ASPR/EMMO); Lauren Johnston; Steven Jt(tCHFStDPH.); Tom Bossert; Johnson, Robert (OS/ASPR/BARDA); HAMILTON, CAMERON; Adams, Jerome (HHS/OASH); Wade, David; Lewis Hofmann; WILKINSON, THOMAS; WOLFE, HERBERT; CharitytA@CDPH; Taylor, Justin (CTR); Marinissen, Maria (HHS/OS/OGA); Sutter, Mark; Mark Keim, MD MBA; Richard Hatchett; McLeod James; Wine G.C.; Dan Carlin; Jerry Mothershead; Krohmer, Jon (NHTSA); Jolly, Brantley (OS/ASPR/EMMO) (CTR); Hart,Alexander (APHMFP - Emergency Medicine); You, Edward H.

(WMD) (FBI)
Subject: RE: Red Dawn Rolling, Start April 6, 15:00

Above the fold in the print
edition: https://www.usatoday.com/story/news/investigations/2020/04/07/coronavirus-response-officials-got-warnings-but-didnt-act-quickly/2958266001/ [gcc01.safelinks.protection.outlook.com]
Please use discretion as we work through our whole-of-nation COVID response effort.
Thanks for all you do!!

From: Carter Mecher <cmecher@charter.net>
Sent: Wednesday, April 8, 2020 10:54 AM
ToSubject: RE: Red Dawn Rolling, Start April 6, 15:00

I think there is much we can glean from the Chinese data.

Here is the data from Lombardy. The first known death in Lombardy was on Feb 21. This outbreak was obviously much larger than was realized (very similar to NYC). Really underscores how even a significant outbreak could be hidden in plain sight. The daily case count peaked on March 21 with a daily case count of 3,251. At the "peak" on March 21, the cumulative death count was 3,095. The current cumulative number of deaths is 9,484. The ICU census at the "peak" on March 21 was 1,093. The ICU census continued to rise and peaked at 1,381 on April 3 (almost two weeks after the daily case count peak).

The peak was really a plateau that lasted from March 20-28 (about 1 week). I would expect much the same here in the US.

Lombardy Region (9.7M)					
Date	Cum Cases	Cum Deaths	Daily Cases	Daily Deaths	ICU
24-Feb	172	7			
25-Feb	212	11			
26-Feb	258				
27-Feb	305				
28-Feb	531				85
29-Feb					
1-Mar	984	24			106
2-Mar	1,254	38			127
3-Mar	1,326	55			167
4-Mar	1,497	73			
5-Mar	1,777	98			244
6-Mar	2,612				
7-Mar	3,420	154			359

8-Mar	4,189	267	769	113	399
9-Mar	5,469	333	1,280	66	440
10-Mar	5,791	468	322	135	466
11-Mar	7,280	637	1,489	169	560
12-Mar	8,725	744	1,445	107	605
13-Mar	9,820	890	1,095	146	650
14-Mar	11,685	966	1,865	76	732
15-Mar	13,272	1,218	1,587	252	767
16-Mar	14,649	1,420	1,377	202	823
17-Mar	16,220	1,640	1,571	220	879
18-Mar	17,713	1,959	1,493	319	924
19-Mar	19,884	2,168	2,171	209	1,006
20-Mar	22,264	2,549	2,380	381	1,050
21-Mar	25,515	3,095	3,251	546	1,093
22-Mar	27,206	3,456	1,691	361	1,142
23-Mar	28,761	3,776	1,555	320	1,183
24-Mar	30,703	4,178	1,942	402	1,194
25-Mar	32,346	4,474	1,643	296	1,236
26-Mar	34,889	4,861	2,543	387	1,263
27-Mar	37,298	5,402	2,409	541	1,292
28-Mar	39,415	5,944	2,117	542	1,319
29-Mar	41,007	6,380	1,592	436	1,328
30-Mar	42,161	6,818	1,154	438	1,330
31-Mar	43,208	7,199	1,047	381	1,324
1-Apr	44,773	7,593	1,565	394	1,342
2-Apr	46,065	7,960	1,292	367	1,351
3-Apr	47,520	8,311	1,455	351	1,381
4-Apr	49,118				

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Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484442d39-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/04/11 19:57:37
Delivered Date:	2020/04/11 19:57:40

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787840AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:46
Priority:	Normal
Type:	Note

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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(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) Dodgen,

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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;

(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(CHESt/DPH); tlerome (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)

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------- 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=71479ef6-2d13878a-7147afc9-0cc47adc5fa2-12bce216563853d5&u=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) 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); tlerome (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.

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From: Carter Mecher

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

To: Dr. Eva K Lee

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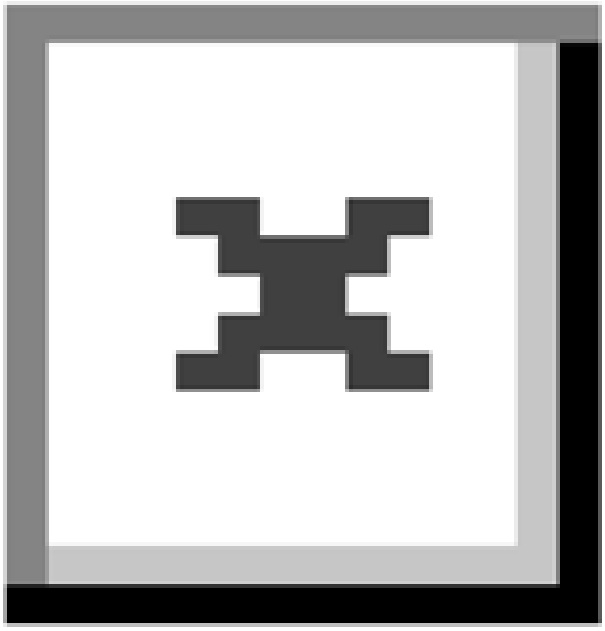
Subject: RE: Red Dawn Rising Start Feb 29

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(CHFStDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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

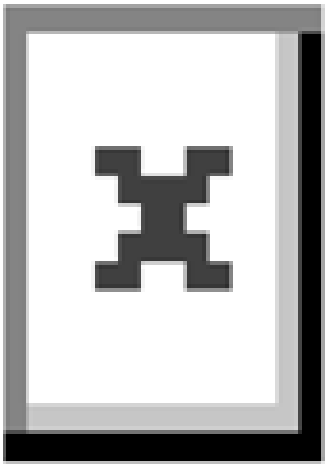
To: Dr. Eva K Lee

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); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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(tCHESttDPH); 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); tlerome (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 (6)(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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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?

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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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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

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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

1. 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"
4. The Ministry of Defence will provide support as needed
5. There will be increased government communication with parliament, the public and the media
6. Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. 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
9. 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

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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 (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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Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive coronavirus case 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.

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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; (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 J(CHFStDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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_kebEJsGbGlwu95UvuDknNEWs7NP_2kXS17LgSTdYEMHcb8

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>; (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>; 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@eghe.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

1. 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 non-pharmaceutical public health measures;

2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

3. 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 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(tCHESt(DPH); 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 refereneed 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.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 Ji(tCHFStDPH); tlerome (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 (b)(6); Tracey McNamara <tmcNamara@wcstcmu.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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(ICHFSt(DPH) <steven.stack@ky.gov>; Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinano@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; (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 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=75ef7d45-29bb6439-75ef4c7a-0cc47adc5fa2-978c4c1c3e08b3d9&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
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<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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(OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; John (OS/ASPR/SPPR)
<John.Redd@hhs.gov>; David (Chris) (OS/ASPR/IO)
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<Eric.McDonald@sdcounty.ca.gov>; David <david.wade@hq.dhs.gov>;
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david.gruber@dshs.texas.gov <david.gruber@dshs.texas.gov>;
SANGEETA <sangeeta.kaushik@hq.dhs.gov>; Scott
<Scott.Lee@hhs.gov>; Larry G <PadgettLG@state.gov>; Ryan Morhard
<Ryan.Morhard@weforum.org>; Steven J@CHFStDPH)
<steven.stack@ky.gov>; Jerome (HHS/OASH)
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<danny.shiau@usuhs.edu>; Danny Shiau <dshiau@cghc.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 (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89040324300687874DA4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=530347f2f35a4317aa74f4634844d239-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 18:20:45
Delivered Date:	2020/03/04 18:20:46

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40A6A6745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f2d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:19:11
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
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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

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From: Carter Mecher <cmecher@charter.net>
Sent: Wednesday, March 4, 2020 1:28 PM
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>; 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

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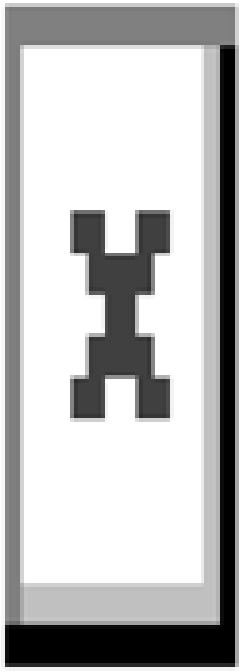
Subject: RE: Red Dawn Rising Start Feb 29

Comparison: China vs. Italy (I can graph these later)
China (pretty much Wuhan) went from 41 cases/1 death to 4,474 cases/107 deaths over span of 23 days; Italy went from 20 cases/1 death to 3,089 cases/107 deaths over the span of 12 days.

Is anybody looking at this? Italy is about to be overrun. That is why Italy closed all schools across the nation today. It is also why Italy leaders are looking for big $ for response. Are public health leaders monitoring this? This could be us in a week or so. Italy implemented very aggressive measures including cordon sanitaire on Feb 21. We have not.

First China



Now Italy

Date	#Confirmed	#Deaths	#Serious Condition
30-Jan	2	0	
31-Jan	2	0	
7-Feb	3	0	
20-Feb	3	0	2
21-Feb	20	1	6
22-Feb	63	2	7

23-Feb	155	3	26
24-Feb	229	7	23
25-Feb	322	11	19
26-Feb	453	12	
27-Feb	655	17	
28-Feb	889	21	64
29-Feb	1,128	29	105
1-Mar	1,694	34	140
2-Mar	2,036	52	166
3-Mar	2,502	79	
4-Mar	3,089	107	

Sent from Mail for Windows 10

From: Carter Mecher
Sent: Wednesday, March 4, 2020 10:38 AM
To: Richard Hatchett; 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 R (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

Been thinking about Wuhan.

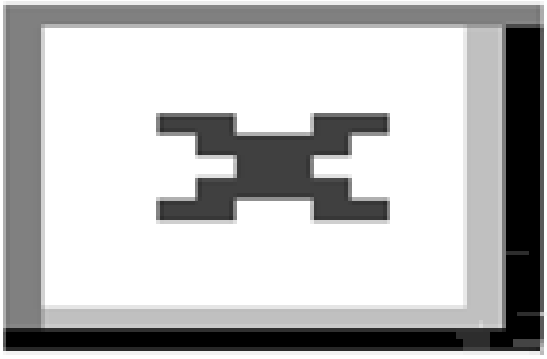
First a little background from the spring wave of 2009 H1N1.

- • The last case count by CDC for the spring wave was on July 25, 2009 (43,771 cases and 302 deaths). This was at a time when the spring wave had plateaued.
- • Final estimate of CFR by CDC for 2009-10 H1N1 Pandemic was 0.02% | 11,690 deaths with 57M cases] https://www.cdc.gov/h1n1flu/estimates/April_January_16.htm
- • Assuming the 2009 spring wave had a CFR of 0.02% with 302 total deaths, the total number of cases (the denominator to have a CFRR of 0.02%) would be estimated at 1,510,000 (compared to the 43,771 reported by CDC.
- • That means that CDC was only aware of about 2.5% of the actual cases in the community during the spring wave. So overall case ascertainment of the spring wave of 2.5%. Earlier in the spring wave (late May), we estimated the case ascertainment to be a little higher (5.7%). So we used a range from 2.5%-5.7% as we followed the outbreak in Wuhan.

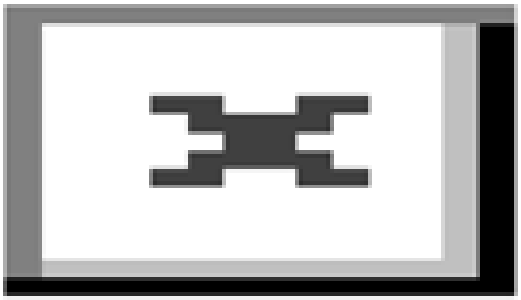
Since January we have been crudely estimating the actual number of cases in Wuhan using these case ascertainment estimates (we assumed that China is no better at identifying all the COVID cases with

asymptomatic/mild disease as we were during the spring wave of 2009 H1N1), and estimating CFR as the outbreak progressed. The cruise ship currently has a CFR of 0.92%, but this is skewed population (elderly).

The latest data from Wuhan : 49,540 cases/2,282 deaths



If we assume Wuhan only identified 2.5%-5.7% of all those who were infected, the actual number infected would be 880K-2M infected. As the case counts begin to plateau, the deaths will lag by about 3-4 weeks (meaning the deaths will continue to climb).



If the deaths continue to rise over the next month, (currently deaths are increasing at about 40 per day). There are currently 1,137 patients in critical condition. If half of those patients die and additional

hospitalized patients become critically ill and half of those expire, we could roughly project total deaths approaching 3,000 for Wuhan.

I find different population estimates for Wuhan (11M vs. 8.4M). Hubei has reported the data by individual cities (so am assuming stricter city definitions), so used the 8.4M number in other calculations. An estimate of 880K- 2M infected equates to an attack rate of 11-24%. 3,000 deaths with 880K-2M infected = 0.15%-0.34% CFR. (That assume that the data from China is complete and accurate and the case ascertainment range is reasonable). If case ascertainment is better than this, the CFRs rise accordingly.

In the crude approximations we made for a notional US city (attack rate of 20%) with a population of 3.3M we estimated 1,200 deaths for 660K infected, so an overall CFR of 0.18%. So in the ballpark.

This raises another question. Why only an attack rate of 11-24% for Wuhan? I would have expected something much higher for this virus. Did their stringent mitigation measures tamp down the attack rate in Wuhan?

Sent from Mail for Windows 10

From: Carter Mecher
Sent: Wednesday, March 4, 2020 8:33 AM
To: Richard Hatchett; 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 R(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

BREAKING: Italy closing all schools and universities across the country due to coronavirus

What are we waiting for?

Sent from Mail for Windows 10

From: Carter Mecher
Sent: Wednesday, March 4, 2020 8:32 AM
To: Richard Hatchett; 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); tlerome (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

I was asked to repeat the back of the envelope estimates of impact on a notional city of 3.3M using the attack rate from the cruise ship (20%). (See attached). Michael Callahan provided a good estimate of the relative requirements of a COVID patient in China vs. a flu patient. His rule of thumb was if a flu patient required X, a COVID patient required 2.5X. I assumed long hospital lengths of stay (sick elderly patients with pneumonia can stay in the hospital and the ICU a long time). I assumed 3 week hospital LOS and 14 day ICU LOS. Can easily adjust those parameters (was applying Michael's rule).

My question is for those of you who are familiar with the day to day operations of healthcare systems (ERs, acute inpatient care, ICU care) as well as outpatient care (use of telehealth). Do you think you could handle this *mild* scenario?

BLUF

Projections 90 Days

This city would be projected to experience a 19% increase above baseline in admissions over this 3 month period for acute hospital care, with about a 42% increase above baseline in true acute care demand (BDOC projections) due to longer LOS.

This city would be projected to experience a 53%-133% increase above baseline over this 3 month period in demand for ICU care (BDOC projections) due to longer ICU LOS.

ER demand for this subset (age 60+) and the under 60 group of 76K ER visits represents about a 21% increase over baseline over this 3 month period.

If we assume all the mildly ill 313K (260K age<60 and 53K age 60+), will be seeking outpatient care, and they will need 2 telehealth visits each, this represents about 626K visits or about a 52% increase compared to the baseline 1.2M PC visits a city of 3.3M normally encounters over a 3 month period.

And remember, demand is not constant over the 3 month period. It will rise exponentially, plateau and then fall. These estimates do not give you the full sense of what it will feel like at the peak.

Key Challenges

1. • ICU care (largest mismatch)—at peak demand ICUs will be overwhelmed
2. • ER care (a 21% increase over 3 months)—at peak demand ERs will be overwhelmed
3. • Outpatient care—I assumed that we would want to minimize face-to-face contact with outpatient clinic providers and leverage telephone/telehealth care as much as possible. That is going to be a very large volume of patients to manage via telephone care and telehealth (we have never done anything with telehealth on this scale before)

Sent from Mail for Windows 10

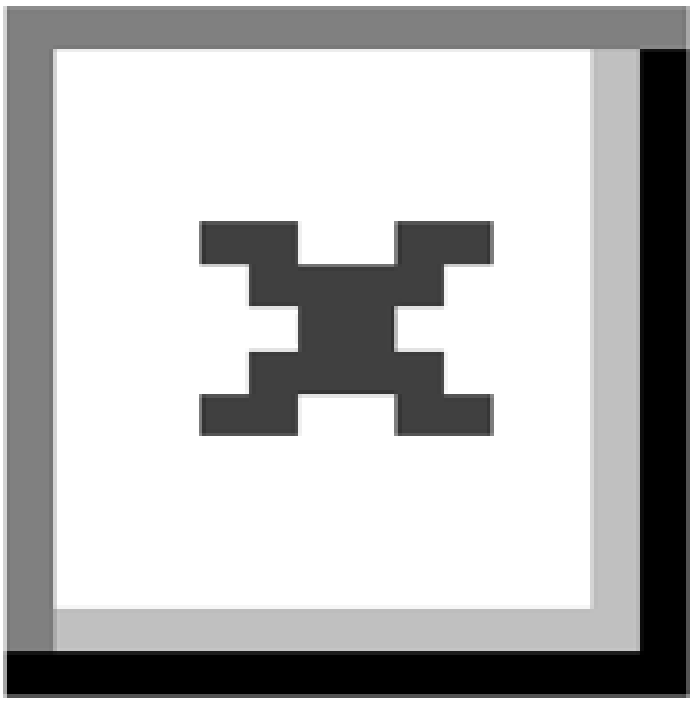
From: Richard Hatchett
Sent: Wednesday, March 4, 2020 7:52 AM
To: Carter Mecher; Tracey McNamara; Dr. Eva Lee
Cc: THOMAS; M.D.; James V; Duane; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; William; CAMERON; (b)(6) Daniel (OS/ASPR/SPPR); Kristin (OS/ASPR/SPPR); Sally (OS/ASPR/SPPR); Matthew 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

Seattle or Singapore?

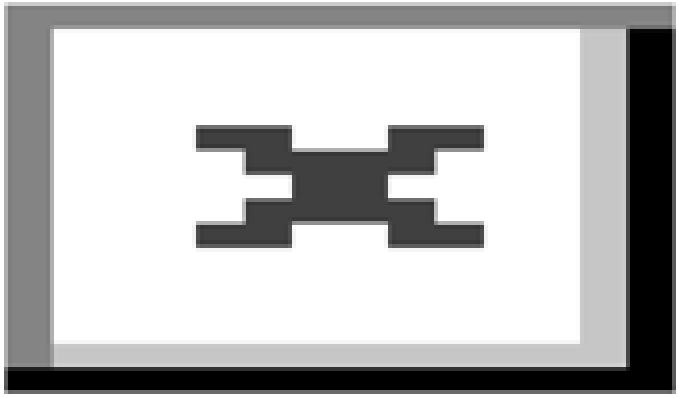
From: Carter Mecher <cmecher@charter.net>
Sent: 04 March 2020 12:44
To: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee (b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; Duane <duane.caneva@hq.dhs.gov>; 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>; (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>; 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

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.



COVID-19 gfx Mar 3



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 R(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.

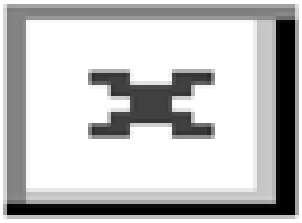
Sent from Mail for Windows 10

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?



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; (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 R (CHFS DPH); 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 R (CHFS DPH); 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

1. • 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"
4. • The Ministry of Defence will provide support as needed
5. • There will be increased government communication with parliament, the public and the media
6. • Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. • 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
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 Jr(tCHFStDPH); tlerome (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 R(tCHFStDPH); tlerome (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 coronavirus case 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 R (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_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 <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 (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@uouhs.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

1. 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 non-pharmaceutical public health measures;
2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. 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 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 R (CHFS DPH); tlerome (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 <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 (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 <PadgettG@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@uouhs.edu; Danny Shiau <dshiau@cahe.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@uouhs.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 (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) (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; 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 <DHandling@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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(tCHFSt:DPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.tantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Danny Shiau <dshiau@cahe.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, (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@uoulhs.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=1a7aaac5-462fa315-1a7a9bfa-0cc47a6a52de-0a153ef6ff151bbb&u=https://www.linkedin.com/posts/activity-6840256596062670849-8TFD
> 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)(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 <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 <PadgettLG@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:(b)(6)
(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430687B740A4A60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484423d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 18:19:10

Delivered Date:	2020/03/04 18:19:11

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40A6A6745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:18:50
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
Biomedical Advanced Research and Development Authority
BARDA
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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

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From: Lawler, James V <james.lawler@unmc.edu>
Sent: Wednesday, March 4, 2020 8:30 AM
To: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee (b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.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) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usushs.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

Yikes. If they are committing that much $ you know it is bad

James Lawler, MD, MPH, FIDSA
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Associate Professor of Medicine
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From: Carter Mecher <cmecher@charter.net>
Sent: Wednesday, March 4, 2020 6:45:26 AM
To: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; Dr. Eva Lee (b)(6)
Cc: THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; Lawler, 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) (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>; 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@uuhs.edu <danny.shiau@uuhs.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

Non-UNMC email

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/ [upi.com]

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.

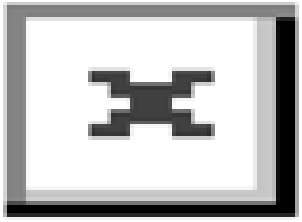
Sent from Mail [go.microsoft.com] for Windows 10

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

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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 R (tCHFS tDPH); 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; (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 R(tCHFStDPH); tlerome (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 [news.sky.com]
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

1. • 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"
4. • The Ministry of Defence will provide support as needed
5. • There will be increased government communication with parliament, the public and the media
6. • Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. • 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
9. • 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; (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 Jr(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.

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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; (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 Jr(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 coronavirus case [oregonlive.com] 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 [oregon.gov] 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; (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 R(tCHFStDPH); tlerome (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=IwAR1mBA6yWOsR_kebFJvGbGIwu95UvuDknNDWs7NP_2kXS17JgSTdYFMHcb8 [fox10phoenix.com]

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 [ccah.vetmed.ucdavis.edu] 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."

[popup.taboola.com]

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>; (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>; 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 <PadgettLG@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@usushs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee-gatech@gm.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

1. • 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 non-pharmaceutical public health measures;
2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. • 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 large-scale gatherings and the closure of schools and workplaces).

Sent from Mail [go.microsoft.com] 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 R (tCHFStDPH); tlerome (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 [sciencemag.org]

The referenced report is at

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

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) (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; 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 <PadgettLG@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@usushs.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 [go.microsoft.com] 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@uswhs.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 [sciencemag.org]
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 [globalbiosecurity.info] | Kirby Institute | UNSW Medicine
Professor of Global Biosecurity & NHMRC Principal Research Fellow [research.unsw.edu.au]

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) (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>; jwieduc@utmb.edu; Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; Kevin <kevin.yerkey@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@usushs.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 [cnbc.com] 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 [go.microsoft.com] 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 H(tCHFStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@uoulhs.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=dd6884b0-813d8da3-dd68b58f-0cc47adb5650-f4d23c33aa0184e9&u=https://www.linkedin.com/posts/activity-6640256596062670849-8TFD [linkedin.com]
>
> S. Korea drive through COVID19 testing. We need this now
>
> Tracey
>
> Get Outlook for Android [aka.ms]
>
> **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) (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 <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 <PadgettLG@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@usushs.edu <danny.shiau@usushs.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/ [newton.isye.gatech.edu]
mobile (b)(6)
(b)(6)

The information in this e-mail may be privileged and confidential, intended only for the use of the addressee(s) above. Any unauthorized use or disclosure of this information is prohibited. If you have received this e-mail by mistake, please delete it and immediately contact the sender.

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430687874044A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484426d9-Bright, Ric <Rick.Bright@hhs.gov>

Sent Date:	2020/03/04 18:18:49
Delivered Date:	2020/03/04 18:18:50

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924D324306B7874DAA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Raging Start March 4
Date:	2020/03/05 20:34:57
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
Biomedical Advanced Research and Development Authority
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Assistant Secretary for Preparedness and Response ASPR
Department of Health and Human Services
330 Independence Avenue, S.W. Room 640 G
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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: Dr. Eva Lee (b)(6)
Sent: Thursday, March 5, 2020 12:37 PM
To: Carter Mecher <cmecher@charter.net>
Cc: Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Dr. Eva K Lee <evalee-gatech@pm.me>; Mecher, Carter (VA.GOV) <carter.mecher@va.gov>; Tracey McNamara <tmcNamara@westernu.edu>; Hunt, Richard (OS/ASPR/EMMO) <Richard.Hunt@hhs.gov>; Richard Hatchett <richard.hatchett@cepi.net>; WILKINSON, THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; M.D. <MVCALLAHAN@mgh.harvard.edu>; James V <james.lawler@unmc.edu>; 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>; HAMILTON, 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) HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; alexander.eastman@hq.dhs.gov; EVANS, 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; Wade, David <david.wade@hq.dhs.gov>; david.a.tarantino@cbp.dhs.gov; david.gruber@dshs.texas.gov; KAUSHIK, 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>; Mansoura, Monique K. <mmansoura@mitre.org>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usuhs.edu; Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Schnitzer, Jay J <jschnitzer@mitre.org>; Ignacio, Joselito (FEMA.DHS.GOV) <joselito.ignacio@fema.dhs.gov>; Brian Benson (b)(6)
Subject: Re: Red Dawn Raging Start March 4

If India didn't do so, the results would be more devastated than Wuhan. Their living conditions are harder and more susceptible to transmission.

On Thu, Mar 5, 2020 at 7:29 AM Carter Mecher <cmecher@charter.net>wrote:
All primary schools in Delhi, India will close for the rest of the month to prevent the spread of coronavirus

Just about every country with community transmission is closing schools (including the best practice places like Singapore and Hong Kong). Looks like our political leaders and public health leaders are flinching. And just like in 1918, you can predict that eventually they will implement all the NPIs including school closure out of desperation (but it will be too late). Only hope is that some cities and states learn from those cities and states being impacted first. The political leaders, emergency managers and even public health leaders understand that they must take very disruptive actions early during a hurricane (evacuate while the sun is shining and a mild breeze). Not sure why they cannot apply that same mindset to disease outbreaks.

Sent from Mail for Windows 10

From: Carter Mecher
Sent: Thursday, March 5, 2020 7:16 AM
To: Dr. Eva Lee; Caneva, Duane; Dr. Eva K Lee
Cc: Mecher, Carter (VA.GOV); Tracey McNamara; Hunt, Richard (OS/ASPR/EMMO); Richard Hatchett; WILKINSON, THOMAS; M.D.; James V; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; Walters, William (STATE.GOV); HAMILTON, CAMERON;

(b)(6) Dodgen, Daniel (OS/ASPR/SPPR); DeBord, Kristin (OS/ASPR/SPPR); Phillips, Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; HARVEY, MELISSA; WOLFE, HERBERT; Eastman, Alexander; EVANS, MARIEFRED; jwleduc@utmb.edu; Johnson, Robert (OS/ASPR/BARDA); Yeskey, Kevin; Disbrow, Gary (OS/ASPR/BARDA); Redd, John (OS/ASPR/SPPR); Hassell, David (Chris) (OS/ASPR/IO); Hamel, Joseph (OS/ASPR/IO); Luciana; Dan; eric.mcdonald@sdcounty.ca.gov; Wade, David; TARANTINO, DAVID A; david.gruber@dshs.texas.gov; KAUSHIK, SANGEETA; Lee, Scott (OS/ASPR/EMMO); Larry G; Ryan Morhard; Steven Jt(CHFStDPH); Adams, Jerome (HHS/OASH); Mansoura, Monique K.; Fantinato, Jessica (USDA.GOV); DC; danny.shiau@usuhs.edu; Condts, Jerome (CTR); Schnitzer, Jay J; Ignacio, Joselito; Brian Benson
Subject: RE: Red Dawn Raging Start March 4

Interesting story. This cruise ship first traveled from San Francisco to Mexico and back to San Francisco on Feb 11-21 (see itinerary #1 below). There were two confirmed cases in travelers on that cruise (and 1 died). The patient who died in Placer County was a 71-year-old man. Once the cruise ship returned to San Francisco, all but 62 passengers disembarked. That same day, the cruise ship began a 15-day cruise to Hawaii. Those 62 passengers currently on the cruise ship who were also aboard the Mexico cruise who could have been exposed to the virus, were asked to stay in their rooms until evaluated by medical staff. So this is an even more complicated story than the Diamond Princess since this outbreak began weeks ago and involved more than 5,000 passengers (since the outbreak spans across two cruises) and more than 1,000 crew. There are reported to be 21 people on board with flu like symptoms. Knowing what James and Michael described of the berthing of the crew, would expect high rates of infection among crew and high rates of infection among passengers (plus the passengers who were scattered back on Feb 21 at the termination of cruise #1. The horse has already left the barn (half the passengers left the ship on Feb 21 with no quarantine). Those were infected have invisibly seeded other communities by now. Given the 1 death already associated with the first cruise, would expect there must have been about 100 cases from that first cruise. Charity, given this death and the other cases popping up, clock is running in terms of pulling the trigger on NPIs. This outbreak is much farther ahead than most people think.

Itinerary Cruise 1 (Feb 11-21)

11-Feb-2020	San Francisco (California), United States	07:00-16:00
12-Feb-2020	At Sea, Int. Waters	00:00-23:59
13-Feb-2020	At Sea, Int. Waters	00:00-23:59
14-Feb-2020	At Sea, Int. Waters	00:00-23:59
15-Feb-2020	Puerto Vallarta, Mexico	08:00-20:00
16-Feb-2020	Manzanillo, Mexico	07:00-16:00
17-Feb-2020	Mazatlan, Mexico	08:00-18:00

18-Feb-2020	Cabo San Lucas, Mexico	07:00-17:00
19-Feb-2020	At Sea, Int. Waters	00:00-23:59
20-Feb-2020	At Sea, Int. Waters	00:00-23:59
21-Feb-2020	San Francisco (California), United States	07:00-16:0

Itinerary Cruise 2 (Feb 21-Mar 7)

21 people on Princess cruise ship heading toward Calif. show possible coronavirus symptoms: officials
By Morgan Phillips | Fox News

The Princess Grand cruise ship headed from Hawaii toward San Francisco contains 21 people who are showing possible symptoms of the novel coronavirus, according to California Gov. Gavin Newsom.

"The ship will not come onshore until we properly assess passengers," Newsom told reporters at a press conference. Newsom declared a state of emergency in California on Wednesday...

Sent from Mail for Windows 10

From: Dr. Eva Lee
Sent: Thursday, March 5, 2020 2:39 AM
To: Caneva, Duane; Dr. Eva K Lee
Cc: Carter Mecher; Mecher, Carter (VA.GOV); Tracey McNamara; Hunt, Richard (OS/ASPR/EMMO); Richard Hatchett; WILKINSON, THOMAS; M.D.; James V; David; Tom Bossert; Charity A@CDPH; Ralph S; Gregory J; Walters, William (STATE.GOV); HAMILTON, CAMERON (b)(6) Dodgen, Daniel (OS/ASPR/SPPR); DeBord, Kristin (OS/ASPR/SPPR); Phillips, Sally (OS/ASPR/SPPR); Matthew J CIV USARMY (USA); Lisa Koonin; HARVEY, MELISSA; WOLFE, HERBERT; Eastman, Alexander; EVANS, MARIEFRED; jwledue@utmb.edu; Johnson, Robert (OS/ASPR/BARDA); Yeskey, Kevin; Disbrow, Gary (OS/ASPR/BARDA); Redd, John (OS/ASPR/SPPR); Hassell, David (Chris) (OS/ASPR/IO); Hamel, Joseph (OS/ASPR/IO); Luciana; Dan; eric.mcdonald@sdcounty.ca.gov; Wade, David; TARANTINO, DAVID A; david.gruber@dshs.texas.gov; KAUSHIK, SANGEETA; Lee, Scott (OS/ASPR/EMMO); Larry G; Ryan Morhard; Steven Jt(CHFStDPH); Adams, Jerome (HHS/OASH); Mansoura, Monique K.; Fantinato, Jessica (USDA.GOV); DC; danny.shiau@usuhs.edu; Cordts, Jerome (CTR); Schnitzer, Jay J; Ignacio, Joselito; Brian Benson
Subject: Re: Red Dawn Raging Start March 4

The two strains of covid-19: L &S

https://academic.oup.com/nsr/advance-article/doi/10.1093/nsr/nwaa036/5775463?searchresult=1

On Thu, Mar 5, 2020 at 12:14 AM Dr. Eva Lee (b)(6) wrote:

Carter, your notional city analysis is quite interesting and beautifully done. I like that you divided the population into different age brackets. That is important since they are not exhibiting the same type of disease trends and resource needs. For once, I reviewed it without going to the computer to run a model to see how it differs :-). I think it reflects some fundamental and important concepts.

Several things:

1. The sustained and multiple level of demand: Yes, the whole idea of a sustained increase demand of ICU, ED, and outpatient access is what troubles me the most. Yes, I truly believe in timely intervention because the downstream effect will be magnified with every delay. And yes, I am fixated with 1%. [[and I will explain more why that is a critical % to me below]] Moreover, we have problem with outpatient access. This has been a huge problem for VA, but really it is a problem with other outpatient sites also. Have you ever called for an appointment? The earliest they can see you could be like 3 weeks from your call. We will be so overwhelmed in no time.

2. Systems-view: Ever since the "requirement" of last mile effort of dispensing antibiotics for an anthrax attack within 48 hours, some public health officials (and citizens alike) criticized the (Bush and Obama) administration's obsession with anthrax and think that this whole idea of 48 hours is absurd. In 2013-2015, I did a vaccine prioritization analysis to determine the percentage of high-risk groups we should vaccinate first before open the dispensing to the general population. The objectives are to minimize the total infection and mortality. Not surprisingly, you don't always give the vaccines to all the high-risk groups first due to herd immunity effect. There is an optimal percentage that could be determined depending on inventory level and how they're shipped. I call that the point the "prioritization trigger".

In this same study, I also analyzed the delay in vaccination and how it will affect the outcome. It shows even with a delay of 1 week, the total infection would increase by 0.5%. So 0.5% for the State of Georgia is about 50,000 people. Even if only 10% of them need medical care, it is still a lot of extra people. This underscores the importance of rapid dispensing -- regardless if it is for anthrax, or for any infectious diseases. We can't handle a huge bunch of sick people because we won't be able to figure out all the unknown that could happen **simultaneously. Hence time is critical. When to act is critical, not just how to act. The key is that it is the whole system that is inter-connected. Hence, we need to see that not only one component gets disrupted, it is everything that gets disrupted. We are not being tested like this. Hence I also view this (now) as a perfect time to test our planning capability and to see how well the federal agencies and states/local are collaborating and communicating.**

Perhaps our decision makers are better dealing with catastrophic events than this lingering disease breakout. But I challenge that notion that we can only act when it goes to the worst possible extreme. I think we must act in a timely manner because we're not the first country to

get infected. We have seen enough around now (2 months). We have criticized enough. Now we have quite many pockets of fire, and perhaps we can't be too shy in making the decisions.

3. **Contingency plan:** The finance sectors in UK have asked me to help them design a contingency plan in the event of a pandemic or terrorist attack a few years ago. And they really follow it, not just in UK, but in other branches all over the world. This is true for some of the private sectors here in the US where they have to make decisions about big meetings and events. Perhaps companies have to act because there is financial and client interests that they must take into account.

4. **The young population:** Today a medical colleague called me. She wants me to do some predictive analysis on cardiovascular diseases. Then she started complaining about GT. So here's our little fire related to COVID-19: Lorraine campus in France has quarantine 1/3 of the students. Due to Spring break, they went to Italy and then they're all being exposed / contact-traced to some of the Italy's covid-19 patients. My colleague told me -- her son has asthma, not all that healthy. She said the university refuses to close campus. Instead, they quarantine everyone in the dormitory and feed them food. She just wants him to come home safe and sound. Yes, he should come home indeed. So I wrote to the Dean and complained about the Lorraine campus situation. I know nothing will be done because they will wait for local officials to tell them what to do. I am not sure local officials here will even know /think about the Lorraine campus. That is a mini-fire. But what about the young population who have chronic diseases? Are they safe from this covid-19? Do we know?

5. **The covid-19 dog:** Tracey asked about it. Here, finally some results
Officials first tested the dog on Feb. 26 and found low levels of coronavirus from its nasal and oral samples a day later. Two repeat tests earlier this week resulted in a "weak positive" for the virus, the department said.

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Sent with ProtonMail Secure Email.

-------- Original Message --------
On Tuesday, March 3, 2020 8:54 PM, Carter Mecher <cmecher@charter.net>wrote:

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[i] 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).

On Wed, Mar 4, 2020 at 11:24 PM Caneva, Duane <duane.caneva@hq.dhs.gov> wrote:

Please use this thread as of evening of 04 March.

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Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=530347521f35a4317aa74f463484442d39-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/05 20:34:56
Delivered Date:	2020/03/05 20:34:57

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032403687874DAA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:08:34
Priority:	Normal
Type:	Note

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From: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Tuesday, March 3, 2020 5:39 PM
To: alexander.eastman@hq.dhs.gov
Cc: Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Marcozzi, David <DMarcozzi@som.umaryland.edu>; 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)

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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.

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-------- Original Message --------
On Tuesday, March 3, 2020 4:29 PM, Eastman, Alexander <alexander.eastman@hq.dhs.gov>wrote:

Are we thinking a NEDOCS type dashboard ??

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

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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?

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) (b)(6) ; Lisa Koonin (b)(6) ; 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@iqt.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 Ju(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@cghc.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.

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-------- 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

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Department of Emergency Medicine

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Associate Professor

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

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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" (b)(6)
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), "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"

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Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive coronavirus case 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@usushs.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_kebEJsGbGIwu95UvuDknNEWs7NP_2kXS17LgSTdYFMHeb8

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>; (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>; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFSsDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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

1. • 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 non-pharmaceutical public health measures;
2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. • 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 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(CHESt(DPH); 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 refereneed 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.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); tlerome (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: Carver 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(CHFS)(DPH) <steven.stack@ky.gov>; tjerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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; (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); tlerome (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=3b9a8425-67ce9d59-3b9ab51a-0cc47adc5fa2-3be4582e6446b7cc&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) (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 <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>; tlerome (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: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851880240324306878740A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=530347f2f35a4317aa74f463484426f9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:08:33
Delivered Date:	2020/03/03 21:08:34

SARS-CoV-2 (COVID-19)	Infectious dose – how much agent will make a normal individual ill?	Transmissibility – How does it spread from one host to another? How easily is it spread?	Host range – how many species does it infect? Can it transfer from species to species?	Incubation period – how long after infection do symptoms appear? Are people infectious during this time?
What do we know?	• The human infectious dose for novel Wuhan coronavirus (SARS-CoV-2), which causes coronavirus disease 19 (COVID-19) is currently unknown via all exposure routes. Severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) coronaviruses (CoV) are used as surrogates. • The infectious dose for SARS in mice is estimated to be between 67-540 PFU (average 240 PFU, intranasal route).[50-52] • Genetically modified mice exposed intranasally to doses of MERS virus between 100 and 500,000 PFU show signs of infection. Infection with higher doses result in severe syndromes.[5, 45, 53, 54] • Initial experiments suggest that SARS-CoV-2 can infect genetically modified mice containing the human ACE2 cell entry receptor. Infection via the intranasal route (dose: 10^5 $TCID_{50}$) causes light infection, however no virus was isolated from infected animals, and PCR primers used in the study do not align well with SARS-CoV-2, casting doubt on this study.[55]	• The WHO has declared SARS-CoV-2 a Public Health Emergency of International Concern[56] with 95,124 cases and 3,254 deaths[57] in 35 countries (as of 3/4/2020).[53, 56, 154] • High-quality estimates of human transmissibility (R_0) range from 2.2 to 3.2.[58, 59, 74, 155, 156] • Large outbreaks are occurring in Japan, Italy, Iran, South Korea, Germany, France, and Spain.[154] • There are 153 SARS-CoV-2 cases across 15 US states, with 11 deaths, (as of 3/4/2020).[68] • Sustained transmission may have been occurring in the US (Seattle) for up to 5 or 6 weeks.[59] • SARS-CoV-2 transmission has occurred in hospitals inside[108] and outside of China,[68] including the US.[7] • Pre-symptomatic[109] or asymptomatic[59] patients in China can transmit SARS-CoV-2; the degree of asymptomatic transmission is still unknown. • SARS-CoV-2 is believed to spread through close contact and droplet transmission.[60] • Viable SARS-CoV-2 has been isolated from human feces; fecal-oral transmission is possible.[61, 110, 111] • Transmission via fomites has not been confirmed for SARS-CoV-2, but occurred in prior SARS[60, 111] and MERS[73] outbreaks. • SARS-CoV-2 is consistently present in infected patient saliva[109] • Infants have been diagnosed with COVID-19, but no evidence exists for vertical transmission via intrauterine infection or through breastmilk.[81, 109] • China reports no evidence of super-spreading events (SSEs) within hospital patients or staff.[60]	• Early genomic analysis indicates similarity to SARS,[112] with a suggested bat origin.[140, 141] • Analysis of SARS-CoV-2 genomes suggests that a non-bat intermediate species is responsible for the beginning of the outbreak.[142] Although the identity of the intermediate species remains unconfirmed, pangolins may be a natural host of related viruses possibly including SARS-CoV-2.[61, 62] • Positive samples from the South China Seafood Market strongly suggests a wildlife source,[62] though it is possible that the virus was circulating in humans before the disease was associated with the seafood market.[61, 63, 155, 157] • Experiments suggest that SARS-CoV-2 Spike (S) receptor binding domain binds the human cell receptor (ACE2) stronger than SARS,[113] potentially explaining its high transmissibility; the same work suggests that differences between SARS-CoV-2 and SARS-CoV Spike proteins may limit the therapeutic ability of SARS antibody treatments.[114] • Modeling between SARS-CoV-2 Spike and ACE2 proteins suggests that SARS-CoV-2 can bind and infect human, bat, civet, monkey and swine cells.[115]	• A study of 1,099 COVID-19 patients found a median incubation period of 3 days, with a range from 0 to 24 days.[57] • Earlier estimates of the incubation period from confirmed cases were higher; 5.8 days with a range from 2.2 to 11.3 days,[7] and 5.2 days with an upper bound of 9.2-18 days.[75] • CDC estimates that the incubation period is between 2 and 14 days.[77, 78] • Asymptomatic infection has been documented, where individuals do not present with clinical symptoms but are found positive via diagnostic assay.[59, 64, 77, 105, 158] • Individuals can be infectious while asymptomatic,[60, 63, 105, 109] and asymptomatic individuals have about the same amount of virus in their nose and throat as symptomatic individuals.[159] • Infectious period is unknown, but possibly up to 10-14 days.[4, 160] • On average, there are 7.5 days between symptom onset in successive cases of a single transmission chain (i.e., the serial interval).[75] • The average time for individuals to first seek medical care decreased from 5.8 days after symptom onset to 4.6 days before and after January 1st, 2020, respectively, indicating an increase in seeking care behavior.[75] • China recommends 14 quarantine for recovered patients due to positive genetic tests days after leaving the hospital, raising the possibility of continued transmission after symptoms subside.[64]

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What do we need to know?	• Human infectious dose by aerosol route • Human infectious dose by surface contact (fomite) • Human infectious dose by fecal-oral route • Where does SARS-CoV-2 replicate in the respiratory tract?	• Capability of SARS-CoV-2 to be transmitted by contact with fomites (doorknobs, surfaces, clothing, etc.) – see also Experimental Stability • Superspreading capacity needs to be refined • Updated person to person transmission rates (e.g., R_0) as control measures take effect • Tendency for ill individuals to seek medical care due to symptoms • What is the underreporting rate?[a] • Can individuals become re-infected with SARS-CoV-2? • What is the difference in transmissibility among countries? • Is the R_0 estimate higher in healthcare or long-term care facilities? • How effective are social distancing measures at reducing spread?	• What is the intermediate host(s)? • What are the mutations in SARS-CoV-2 that allowed human infection and transmission? • What animals can SARS-CoV-2 infect (e.g., pet dogs, potential wildlife reservoirs)?	• How early does asymptomatic transmission begin? • What is the average infectious period during which individuals can transmit the disease? • How long do patients continue to shed infectious virus after physical recovery? • Can individuals become re-infected after recovery? If so, how long after?
Who is doing experiments/has capabilities in this area?	*Capable of performing work:* - DHS National Biodefense Analysis and Countermeasures Center (NBACC)	*Performing work:* - Christian Althaus (Bern) - Neil Ferguson (MRC) - Gabriel Leung, Joseph Wu (University of Hong Kong) - Sara Del Valle (Los Alamos) - Maimuna Majumder (Boston Children's Hospital) - Trevor Bedford (Fred Hutchinson Cancer Center) - Sang Woo Park (Princeton)	*Capable of performing work:* - Vincent Munster (Rocky Mountain National Laboratory) - Matthew Frieman (University of Maryland Baltimore) - Ralph Baric (University of North Carolina) - Stanley Perlman (University of Iowa) - Susan Baker (Loyola University Chicago) - Mark Denison (Vanderbilt University) - Vineet Menachery (University of Texas Medical Branch) - Jason McLellan, Daniel Wrapp, Nianshuang Wang (University of Texas) - David O'Connor (U. Wisconsin, Madison)	*Performing work:* - Chaolin Huang (Jin Yin-tan Hospital, Wuhan, China) - The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team

SARS-CoV-2 (COVID-19)	Clinical presentation – what are the signs and symptoms of an infected person?	Clinical diagnosis – are there tools to diagnose infected individuals? When during infection are they effective?	Medical treatment – are there effective treatments? Vaccines?	Environmental stability – how long does the agent live in the environment?
What do we know?	• The majority of COVID-19 cases are mild (81%, N = 44,000 cases)[63] • Initial COVID-19 symptoms include fever (87.9% overall, but only 43.8% present with fever initially[63]), cough (67.7%[63]), fatigue, shortness of breath, headache, reduction in lymphocyte count.[5, 27, 63] Headache[27] and diarrhea are uncommon[63, 76] • Complications include acute respiratory distress (ARDS) observed in 17-29% of hospitalized patients,[63, 65] which leads to death in 4-15% of cases.[27, 65, 109] • Other complications include pneumonia (characteristic ground glass opacities[65]), acute cardiac injury, secondary infection, kidney failure, arrhythmia, and shock.[27, 63, 109] • Approximately 15% of hospitalized patients were classified as severe,[27, 109] and severe cases were older and more likely to have underlying disorders[27, 109]; approximately 5% of patients were admitted to the ICU.[27, 109] • Between 23-32% of cases that include pneumonia required intensive respiratory support.[27, 109] • Overactive immune cells may contribute to symptom severity.[109] • Approximately 1% of hospitalizations occur in children < 19 years old.[27, 109] • The case fatality rate (CFR) depends on patient comorbidities; no comorbidities = 0.9%, cardiovascular disease = 10.5%, diabetes = 7.3%, chronic respiratory disease = 6.3%, hypertension = 6.0%, cancer = 5.6%.[109] • The CFR is age-dependent; ≥80 years old = 14.8%, 70-79 = 8.0%, 60-69 = 3.6%, 50-59 = 1.3%, 40-49 = 0.4%, 10-39 = 0.2%, 0-9 = 0%.[109] • 68.8% of confirmed fatalities have been male.[109]	• Updated tests from the US CDC are available to states.[76, 96] • The FDA released an Emergency Use Authorization describing an accelerated policy enabling laboratories to develop and use tests in-house for patient diagnosis.[76] • The US has relaxed criteria for testing patients, no longer requires travel history or close contact with known case.[76] • US CDC has expanded patient testing criteria to include symptomatic patients at Clinician discretion.[76] CDC recommends that testing decisions should be based on local transmission, travel history, patient clinical course, close contact with infected patients, and occupational risk (e.g., Health Care Workers).[27] • SARS-CoV-2 is consistently present in infected patient saliva, suggesting that saliva may be an effective diagnostic specimen.[104] • Several RT-PCR assays have been developed to detect SARS-CoV-2 in humans.[5, 96, 111, 112] • PCR protocols and primers have been widely shared among international researchers.[27, 67, 75, 96, 111, 112] • Several rapid or real-time test kits have been produced by universities and industry, including the Wuhan Institute of Virology,[96] BGI,[14] and Cepheid.[109] • RT-PCR tests are able to identify asymptomatic cases; SARS-CoV-2 infection was identified in 2/114 individuals previously cleared by clinical assessment.[14]	• Treatment for COVID-19 is primarily supportive care including oxygen and mechanical ventilation.[27] Though China has released a treatment plan[6], over 80 clinical trials are set to run on various treatments in China.[63] • Efficacy antivirals (lopinavir, ritonavir, ribavirin, oseltamivir) is unknown[5]; however several therapeutics (Remdesivir[59] and chloroquine) inhibit SARS-CoV-2 infection in human cells in vitro[59] and are undergoing clinical trials in China[63] and the US.[76, 83] • Multiple entities are working to produce a SARS-CoV-2 vaccine, including NIH/NIAID,[76, 77] Moderna Therapeutics and Gilead Sciences,[76, 83] and Sanofi with HHS.[76] • The hospitalized case-fatality rate in China has decreased from 14.4% to 0.8% as of between December, 2019 and February, 2020,[63] suggesting improved treatment or increased capacity • Approximately 38% of COVID-19 patients in China received oxygen therapy, 6.1% received mechanical ventilation, 97.5% received IV antibiotics, and 35.8% received the antiviral oseltamivir.[27] • A clinical report (one patient) suggested that corticosteroids should be considered for severe patients to prevent ARDS.[113] However, US CDC recommends avoiding steroid use due to an increase in viral replication in MERS patients.[76] • Similarity in the spike proteins of SARS-CoV-2 and SARS-CoV might offer target for therapeutics,[59, 76, 78, 109, 110] as vaccines derived from spike proteins are effective at inhibiting MERS symptoms in mice.[59]	• No information yet exists regarding the environmental stability of SARS-CoV-2; SARS and MERS coronaviruses are used as surrogates instead. • Studies suggest that coronavirus can survive on non-porous surfaces up to 9-10 days (MHV, SARS-CoV)[71, 72], and porous surfaces for up to 3-5 days (SARS-CoV)[14] in air conditioned environments (20-22°C, 40-50% RH) • Coronavirus survival tends to be higher at lower temperatures and lower relative humidity (RH),[61, 71, 72, 73, 105] though infectious virus can persist on surfaces for several days in typical office or hospital conditions[105] • SARS can persist with trace infectivity for up to 28 days at refrigerated temperatures (4°C) on surfaces.[72] • Beta-coronaviruses (e.g., SARS-CoV) may be more stable than alpha-coronaviruses (HCoV-229E).[61] • No strong evidence for reduction in transmission with seasonal increase in temperature and humidity.[61] • Survival of SARS-CoV-2 specifically is unknown, and surrogate coronavirus data need to be used at this time. • One hour after aerosolization approximately 6.3% of airborne MERS virus remained viable in a simulated office environment (25°C, 75% RH)[61] • The aerosol survival of related human coronavirus (229E) was relatively high, (half-life of ~67 hours at 20°C and 50% RH), indicating ~20% of infectious virus remained after 6 days.[105] Both higher and lower RH reduced HCoV-229E survival; lower temperatures improved survival.[105]

SARS-CoV-2 (COVID-19)	Clinical presentation – what are the signs and symptoms of an infected person?	Clinical diagnosis – are there tools to diagnose infected individuals? When during infection are they effective?	Medical treatment – are there effective treatments? Vaccines?	Environmental stability – how long does the agent live in the environment?
What do we need to know?	• How long does it take for infected individuals to recover outside of a hospitalized setting? • How does the CFR vary between countries? • Is the reduction in CFR through time an indication of better treatment, less overcrowding, or both?	• False positive/negative rates for tests • Eclipse phase of infection (time between infection and detectable disease) in an individual	• Is GS-5734 (remdesivir) effective in vivo (already used in clinical trials under Emergency Use Authorization)?[6] • Is the GLS-5000 MERS vaccine[15] cross-reactive against SARS-CoV-2? • Efficacy of antibody treatments developed for SARS[16, 17] and MERS[18] • What is the efficacy of various MERS and SARS Phase I/II vaccines and other therapeutics? • Are viral replicase inhibitors such as beta-D-N4-hydroxycytidine effective against SARS-CoV-2?[12]	• Stability of SARS-CoV-2 in aerosol, droplets, and other matrices (mucus/sputum, feces) • "Hang time" of the virus in air (Aerosol decay rate) • Particle size distribution (e.g., droplet, large droplet and true aerosol distribution) • Duration of SARS-CoV-2 infectivity via fomites and surface (contact hazard)? • Stability of SARS-CoV-2 on PPE (e.g., Tyvek, nitrile, etc.)
Who is doing experiments/has capabilities in this area?	- Jin Yin-tan Hospital, Wuhan, China - China-Japan Friendship Hospital, Beijing, China - Peking Union Medical College, Beijing, China - Capital Medical University, Beijing, China - Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China - Huazhong University of Science and Technology, Wuhan, China - The Central Hospital of Wuhan, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China - Tsinghua University School of Medicine, Beijing, China - Zhongnan Hospital of Wuhan University, Wuhan, China - Peking University First Hospital, Beijing, China - Peking University People's Hospital, Beijing, China - Tsinghua University-Peking University Joint Center for Life Sciences, Beijing, China - The Fifth Medical Center of PLA General Hospital, Beijing, China	*Performing work:* - CDC - Wuhan Institute of Virology - Public Health Agency of Canada - Doherty Institute of Australia - Cepheid - BGI	*Performing work:* - Peter Doherty Institute for Infection and Immunity - Academy of Military Medical Sciences, Beijing, China - Tim Sheahan (University of North Carolina) *Capable of performing work:* - Ralph Baric (University of North Carolina) - Matthew Frieman (University of Maryland Baltimore) - Sanofi, with BARDA - Janssen Pharma and BARDA[19] *Funded work:* CEPI ($12 million to three groups): - Moderna and NIAID for mRNA platform vaccine - Inovio preparing DNA vaccine (for MERS) - University of Queensland, Australia NIAID/NIH: - Moderna and Kaiser Permanente for mRNA vaccine Phase I trial;[7] - University of Nebraska Medical Center Trial (multiple therapeutics including Gilead's Remdesivir);[7]	*Capable of performing work:* - Mark Sobsey (University of North Carolina) - DHS National Biodefense Analysis and Countermeasures Center (NBACC) - Defence Science and Technology Laboratory (Dstl) - Public Health Agency of Canada - CDC - EPA - NIH

SARS-CoV-2 (COVID-19)	Decontamination – what are effective methods to kill the agent in the environment?	PPE – what PPE is effective, and who should be using it?	Forensics – natural vs intentional use? Tests to be used for attribution.	Genomics – how does the disease agent compare to previous strains?
What do we know?[1]	• No decontamination data for SARS-CoV-2 have been identified. SARS-CoV provides a plausible surrogate, as it is a close genetic relative of SARS-CoV-2 in the beta-coronavirus clade. • Chlorine-based[111] and ethanol-based[5] solutions recommended, and the European CDC has released disinfectant guidelines for non-healthcare facilities.[33] • "The virus [SARS-CoV-2] has relatively weak viability in vitro and can be inactivated at 56 ° C for 30 minutes. Chlorine-containing disinfectants and 75% ethanol can effectively inactivate the virus."[5,11] • Heat treatment at 56°C is sufficient to kill coronaviruses,[85,103] though effectiveness depends in part on amount of protein in contaminated media[33] • 70% ethanol, 50% isopropanol, sodium hypochlorite [bleach, 200 ppm], and UV radiation are effective at inactivating several coronaviruses (MHV and CCV)[34] • Ethanol-based biocides (including ethanol-containing gels) are effective disinfectants against coronaviruses dried on surfaces, including ethanol containing gels similar to hand sanitizer.[85,112] • Surface spray disinfectants such as Mikrobac, Dismozon, and Korsolex are effective at reducing infectivity of the closely related SARS-CoV after 30 minutes of contact.[85] • Coronaviruses may be resistant to thermal inactivation for up to 7 days when stabilized in stool.[102,103] • Additionally, coronaviruses are more stable in matrixes such as respiratory sputum.[33]	• PPE effectiveness for SARS-CoV-2 is currently unknown; SARS is used as a surrogate. • US CDC does not recommend the use of face masks for healthy people. Face masks should be used by people showing symptoms to reduce the risk of others getting infected. The use of face masks is crucial for health workers and people in close contact with infected patients (at home or in a health care facility).[5] • "Healthcare personnel entering the room [of SARS-CoV-2 patients] should use standard precautions, contact precautions, airborne precautions, and use eye protection (e.g., goggles or a face shield)"[104] • WHO indicates healthcare workers should wear clean, non-sterile, long-sleeve gowns as well as gloves.[102] • Respirators (NIOSH-certified N95, EUFFP2 or equivalent) are recommended for those dealing with possible aerosols[113] • Additional protection, such as a Powered Air Purifying Respirator (PAPR) with a full hood, should be considered for high risk procedures (i.e., intubation, ventilation)[33] • Healthcare worker illnesses (over 1,000[105]) demonstrates human-to-human transmission despite isolation, PPE, and infection control.[35] • Porous hospital materials, including paper and cotton cloth, maintain infectious SARS-CoV for a shorter time than non-porous material.[33] • CDC recommends face masks for individuals attempting to prevent spread of SARS-CoV-2 in the home.[5]	• Genomic analysis places SARS-CoV-2 into the beta-coronavirus clade, with close relationship to bat viruses. The SARS-CoV-2 virus is distinct from SARS and MERS viruses.[11] • Genomic analysis suggest that SARS-CoV-2 is a natural variant, and is therefore unlikely to be human-derived or otherwise created by "recombination" with other circulating strains of coronavirus.[5,102] • Some genomic evidence indicates a close relationship with pangolin coronaviruses[114]; data suggests that pangolins may be a natural host for beta-coronaviruses [36,37]. Additional research is needed. • Genomic data support at least two plausible origins of SARS-CoV-2: "(i) natural selection in a non-human animal host prior to zoonotic transfer, and (ii) natural selection in humans following zoonotic transfer."[11] Either scenario is consistent the observed genetic changes found in all known SARS-CoV-2 isolates. • Additionally, "[…] SARS-CoV-2 is not derived from any previously used virus backbone," reducing the likelihood of laboratory origination,[5] and "[…] genomic evidence does not support the idea that SARS CoV-2 is a laboratory construct, [though] it is currently impossible to prove or disprove the other theories of its origin."[11]	• There have been no documented cases of SARS-CoV-2 prior to December 2019 • Preliminary genomic analysis, however, suggest that the first human cases of SARS-CoV-2 emerged between 50/59/2019 – 12/17/2019.[1,15,38] • The mutation rate of SARS-CoV-2 is estimated to be similar to other RNA viruses (e.g., SARS, Ebola, Zika), and is currently calculated to be between 3.29×10^{-4} – 2.03×10^{-3} substitutions per site per year (median 1.07×10^{-3}),[1] though this estimate may change as more genomes are sequenced. • Preliminary phylogenetic analysis identified a very close genetic similarity between SARS-CoV-2 and a Bat coronavirus (RaTG13) isolated from Yunnan Province, China; suggesting that SARS-CoV-2 originated from bats.[15] • Pangolin coronaviruses are closely related to both SARS-CoV-2 and the closely related Bat coronavirus (RaTG13); phylogenetic analysis suggested that SARS-CoV-2 is of bat origin, but is closely related to pangolin coronavirus.[36,37] • The Spike protein of SARS-CoV-2, which mediates entry into host cells and is the major determinant of host range, is very similar to the Spike protein of SARS-CoV.[39] The rest of the genome is more closely related to two separate bat [38] and pangolin[37] coronavirus. • Protein modeling and preliminary laboratory studies suggest that SARS-CoV-2 binds to the human ACE2 receptor,[107,115] the same cellular entry receptor used by SARS and other beta-coronaviruses.

SARS-CoV-2 (COVID-19)	Decontamination – what are effective methods to kill the agent in the environment?	PPE – what PPE is effective, and who should be using it?	Forensics – natural vs intentional use? Tests to be used for attribution.	Genomics – how does the disease agent compare to previous strains?
What do we need to know?	• What is the minimal contact time for disinfectants? • Are antiseptic wipes effective for cleaning hard, non-porous surfaces? • Does contamination with human fluids/waste alter disinfectant efficacy profiles? • How effective is air filtration at reducing transmission in healthcare, airplanes and public spaces?	• Mode of aerosol transmission? Effective distance of spread via droplet or aerosol? • Is virus detectable in aerosol samples from patient rooms? • How effective are barriers such as N95 respirators or surgical masks? • What is the appropriate PPE for first responders? • What are the proper procedures for reducing spread in medical facilities / transmission rate in medical settings?	• What tests for attribution exist for coronavirus emergence? • What is the identity of the intermediate species? • Are there closely related circulating coronaviruses in bats or other animals with the novel PRRA cleavage site found in SARS-CoV-2?	• Are there similar genomic differences in the progression of coronavirus strains from bat to intermediate species to human? • Are there different strains or clades of circulating virus? If so, do they differ in virulence?
Who is doing experiments/has capabilities in this area?	*Capable of performing work:* - DHS National Biodefense Analysis and Countermeasures Center (NBACC)	*Generating recommendations:* - WHO - CDC - Pan American Health Organization	*Performing genomic investigations:* - Kristian Andersen, Andrew Rambaut, Ian Lipkin, Edward Holmes, Robert Garry (Scripps, University of Edinburgh, Columbia University, University of Sydney, Tulane, Zalgen Labs [Germantown, MD]) *Capable of performing work:* - Pacific Northwest National Laboratory - DHS National Biodefense Analysis and Countermeasures Center (NBACC)	*Performing work:* - Trevor Bedford (Fred Hutchinson Cancer Research Center) - Ralph Baric, UNC - National Institute for Viral Disease Control and Prevention, Chinese Center for Disease Control and Prevention - Shandong First Medical University and Shandong Academy of Medical Sciences - Hubei Provincial Center for Disease Control and Prevention - Chinese Academy of Sciences - BGI PathoGenesis Pharmaceutical Technology, Shenzhen, China - People's Liberation Army General Hospital, Wuhan, China - Wenzhou Medical University, Wenzhou, China - University of Sydney, Sydney, NSW, Australia - The First Affiliated Hospital of Shandong First Medical University (Shandong Provincial Qianfoshan Hospital), Jinan, China

Table 1. Definitions of commonly-used acronyms

Acronym/Term	Definition	Description
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2	Official name for the virus previously known as 2019-nCoV.
COVID-19	Coronavirus disease 19	Official name for the disease caused by the SARS-CoV-2 virus.
CFR	Case Fatality Rate	Number of deaths divided by confirmed patients
PFU	Plaque forming unit	Measurement of the number of infectious virus particles as determined by plaque forming assay. A measurement of sample infectivity.
$TCID_{50}$	50% Tissue Culture Infectious Dose	The number of infectious units which will infect 50% of tissue culture monolayers. A measurement of sample infectivity.
HCW	Healthcare worker	Doctors, nurses, technicians dealing with patients or samples
SARS	Severe Acute Respiratory Syndrome	Coronavirus with over 8,000 cases in global 2002-2003 outbreak
MERS	Middle East Respiratory Syndrome	Coronavirus with over 2,000 cases in regional outbreak since 2012
CoV	Coronavirus	Virus typified by crown-like structures when viewed under electron microscope
R_0	Basic reproduction number	A measure of transmissibility. Specifically, the average number of new infections caused by a typical infectious individual in a wholly susceptible population.
MHV	Mouse hepatitis virus	Coronavirus surrogate
CCV	Canine coronavirus	Canine coronavirus
Fomite	Inanimate vector of disease	Surfaces such as hospital beds, doorknobs, healthcare worker gowns, faucets, etc.

Droplet transmission	Sneezing, coughing	Transmission via droplets requires relatively close contact (e.g., within 6 feet)
Airborne transmission	Aerosolization of infectious particles	Aerosolized particles can spread for long distances (e.g., between hospital rooms via HVAC systems)
Transgenic	Genetically modified	In this case, animal models modified to be more susceptible to MERS and/or SARS by adding proteins or receptors necessary for infection
Intranasal	Agent deposited into external nares of subject	Simulates inhalation exposure by depositing liquid solution of pathogen/virus into the nose of a test animal, where it is then taken up by the respiratory system.
Incubation period	Time between infection and symptom onset	Time between infection and onset of symptoms typically establishes guidelines for isolating patients before transmission is possible
Infectious period	Length of time an individual can transmit infection to others	Reducing the infectious period is a key method of reducing overall transmission; hospitalization, isolation, and quarantine are all effective methods
Serial interval	Length of time between symptom onset of successive cases in a transmission chain	The serial interval can be used to estimate R_0, and is useful for estimating the rate of outbreak spread
Superspreading	One individual responsible for an abnormally large number of secondary infections	Superspreading can be caused by high variance in the distribution of secondary cases caused by a single individual; most individuals infect very few people, while some infect a large number, even with the same average number of secondary infections
Nosocomial	Healthcare- or hospital-associated infections	Characteristic of SARS and MERS outbreaks, lead to refinement of infection control procedures
ACE2	Angiotensin-converting enzyme 2	Acts as a receptor for SARS-CoV, allowing entry into human cells

ARDS	Acute respiratory distress syndrome	Leakage of fluid into the lungs which inhibits respiration and leads to death
PPE	Personal protective equipment	Gowns, masks, gloves, and any other measures used to prevent spread between individuals

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From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787E740AA6074SE3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:10:17
Priority:	Normal
Type:	Note

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 3, 2020 8:55 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>; Marcozzi, David <DMarcozzi@som.umaryland.edu>; 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

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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 3.3M 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 (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

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 plans to remain closed 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 said 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; jwiedue@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(tCHESt(DPH); tJerome (HHS/OASH); DC; DC; danny.shiau@vauhs.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.

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https://newton.isye.gatech.edu/DrLee/
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Sent with ProtonMail Secure Email.

-------- Original Message --------
On Tuesday, March 3, 2020 4:29 PM, Eastman, Alexander <alexander.eastman@hq.dhs.gov>wrote:

> Are we thinking a NEDOCS type dashboard ??

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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?

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.

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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 Maryland School of Medicine

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Associate Professor

Department of Epidemiology and Public Health

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

Assistant Chief Medical Officer for Acute Care

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Baltimore City Fire Department

https://protect2.fireeye.com/url?k=7619b83d-2a4cb1ed-76198902-0cc47a6a52de-5790630d43b0a2c8&u=https://flrc.baltimorecity.gov/

Mailing Address:

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

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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" (b)(6)
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) "Daniel (OS/ASPR/SPPR)" <Daniel.Dodgen@hhs.gov>, "Kristin (OS/ASPR/SPPR)" <Kristin.DeBord@hhs.gov>, "Sally (OS/ASPR/SPPR)" <Sally.Phillips@hhs.gov>, "matthews, hepburn" (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" <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 Ju(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@cghc.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 coronavirus case 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 J(0CHESt(DPH); tlerome (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."

-

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>; (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>; 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 <PadgettLG@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@cghc.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

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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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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 <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 (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

<PadgettLG@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@cghc.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:

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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 <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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jr(tCHFSt:DPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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 (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 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=2c130daf-7046047f-2c133c90-0cc47a6a52de-e21fa495e14b356c&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) (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 <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@eghe.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: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787940A4A6074SE2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034753f35a4317aa74f463484432d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:10:16
Delivered Date:	2020/03/03 21:10:17

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 19:19:38
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
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330 Independence Avenue, S.W. Room 640 G
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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: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Wednesday, March 4, 2020 6:27 PM
To: Richard Hatchett <richard.hatchett@cepi.net>
Cc: Carter Mecher <cmecher@charter.net>; Tracey McNamara <tmcNamara@westernu.edu>; 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) 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 <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

Yes, this also aligns with the models I have sent and shown for Santa Clara and King County analysis and validated against the data from Hong Kong. The power of NPI cannot be under-estimated. But it must be rolled out timely (and we are late, so must act). I am glad NYP hospital took the suggestion and marched forward with their own intervention. But it is still late -- though they acted immediately on one single confirmed case. By now 5 more already. As David and I spoke on the phone, the trigger -- one confirmed case is a pretty good one. It is not to say that that should be a universal trigger. It is only a good tirgger now because we have seen too many repeated patterns. One case -- means -- many hidden ones that we simply didn't know. And one case is just one too many.

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 6:19 PM, Richard Hatchett <richard.hatchett@cepi.net>wrote:

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.

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 (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(tCHFSt(DPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usushs.edu; Danny Shiau <dshiau@eghe.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://protect2.fireeye.com/url?k=66561519-3a031ee9-66562426-0ee47a6a52de-4d6bfeeb03e050bd&u=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) 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

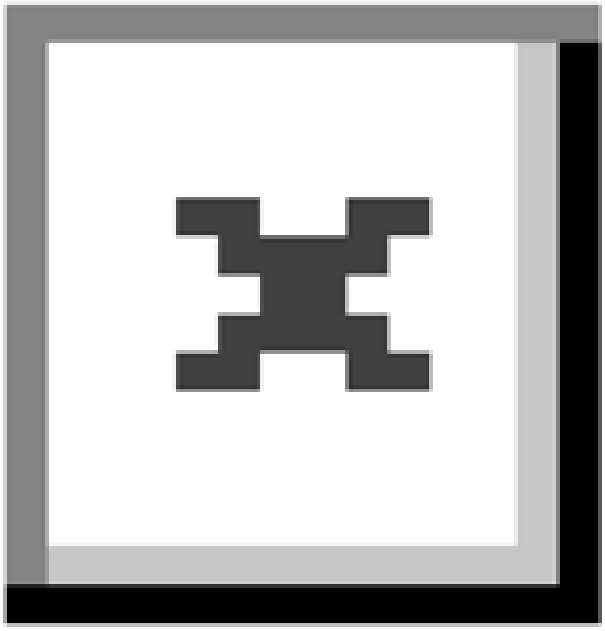
https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf

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; MARIFRED; 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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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

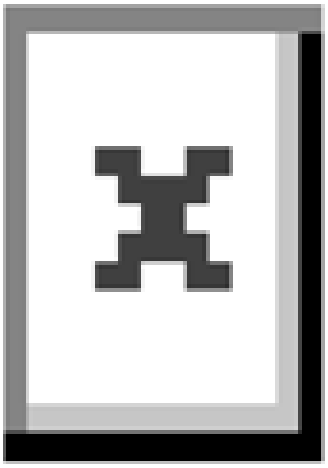
To: Dr. Eva K Lee

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; jw/leduc@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(0CHESt)DPH); 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(tCHESttDPH); tlerome (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); tlerome (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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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)(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); tlerome (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 J(0CHESt(DPH); tlerome (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

1. 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"
4. The Ministry of Defence will provide support as needed
5. There will be increased government communication with parliament, the public and the media
6. Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. 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
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 Mothard; Steven J(0CHFStDPH); tlerome (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(CHESt/DPH); tlerome (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 coronavirus case 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 J(tCHESt)DPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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_kebEJsGbGlwu95UvuDknNEWs7NP_2kXS17LgSTdYEMHcb8

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>; (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>; 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@eghe.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

1. 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 non-pharmaceutical public health measures;

2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

3. 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 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 J(CHESt)DPH); tlerome (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 refereneed 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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFStDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.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 Ji(tCHFStDPH); tlerome (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 (b)(6); Tracey McNamara <tmcNamara@wcstcrmu.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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(ICHFSt(DPH) <steven.stack@ky.gov>; Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinano@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; (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 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=5c462db0-00132460-5c461c8f-0cc47a6a52de-8e7b3946d4c8ca0b&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)
(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>; 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.taramino@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 <PadgettLG@state.gov>; Ryan Morhard
<Ryan.Morhard@weforum.org>; Steven J@CHFStDPH)
<steven.stack@ky.gov>; Jerome (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@cghc.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: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E892403243068787404A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>

Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484432d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 19:19:37
Delivered Date:	2020/03/04 19:19:38

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D4033403B87B740AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29 -- Evidence of how NPI works --
Date:	2020/03/04 22:12:33
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
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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: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Wednesday, March 4, 2020 1:41 PM
To: 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); 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) <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 -- Evidence of how NPI works --

.

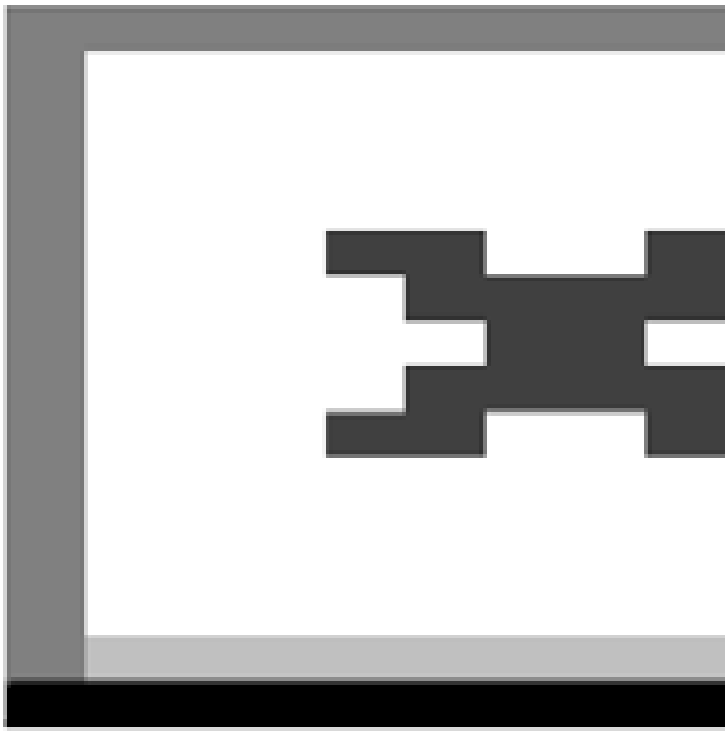
How does NPI work in other country?

I took the same NPI and disease model that I did for Santa Clara (and sent yesterday) and apply it to the Hong Kong situation. I put down 5 (imported) infection as of Jan 25 when Hong Kong declared a state of emergency and closed schools and government business. I use the same parameters as I did on Jan 31: exposed duration: 2 days (25%),5.2 days (55%),12.5 days (20%), Mean per-symptomatic duration: 1 day, Mean a/symptomatic duration: 3 days, 2/3 symptomatic. [[For Santa Clara, it is slower, Mean a/symptomatic duration is 5 days.]]

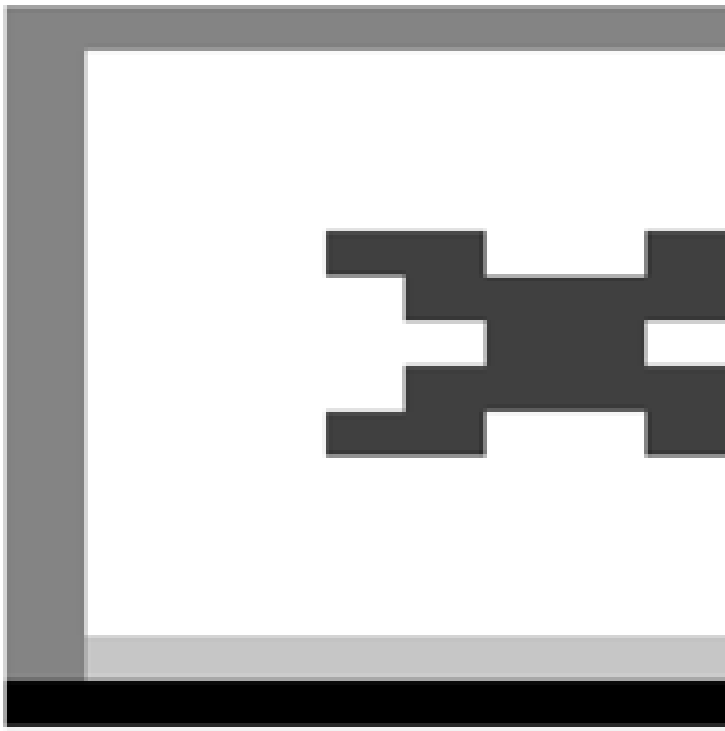
As I did before, the model includes social behavior and personal situational awareness. So it is stochastic and not a single R0 approach. Note that there is no mandate of home-office/tele-work by government on private business, rather it was government of closing schools and business that triggers private business to act and they almost acted instantaneously. Note that this is a country that is used to SARS, bird flu and the old day pandemic flu. So they use their past experience and responded.

Here's the result. I also plot the real data and see how they fit. Alarming and amazing, just as Carter and Rich H pointed out how Italy, S. Korea, or the China data that fit perfectly to the 1918 pandemic figures, this disease+NPI model describes the on-the-ground perfectly. In the absence of early intervention, the outbreak grows exponentially and then theire's a hard brake (of massive response effort), hence, we saw what we are seeing now and the ghost of the 1918 past in these countries (same response pattern, though 1918 pandemic was probably very new to their modern times then). Both Hong Kong and Singapore have amassed a pretty good(or bad) experience from SARS, and many pandemics before. So they are acting and they have no choice since the border is open.

I use a slower spread in US (and I always have been all these years since we are a bit different in our social structure. But DC and NY subway and public transportation is very similar to Singapore and Hong Kong. And we sill go to football games, churches, malls, food courts etc.



Hong Kong Strategies to contain -1.jpg



Hong Kong strategies to contain-2.jpg
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 6:45 AM, Carter Mecher <cmecher@charter.net>wrote:

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.

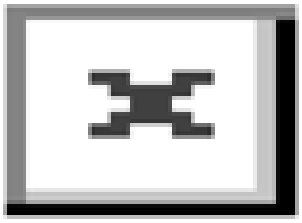
Sent from Mail for Windows 10

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; (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); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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

1. • 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"
4. • The Ministry of Defence will provide support as needed

5. • There will be increased government communication with parliament, the public and the media
6. • Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. • 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
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 J(CHFS/DPH); tlerome (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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.edu; Danny Shiau; richard.hunt@hhs.gov; Dr. Eva K Lee
Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive coronavirus case 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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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."

-

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>; (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>; 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 <PadgettLG@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

1. • 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 non-pharmaceutical public health measures;
2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

3. • 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 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(CHFStDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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 <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 (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(tCHFSt.DPH) <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@cghc.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-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

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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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(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@eghe.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; (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); tlerome (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=548811a8-08dc08d4-54882097-0cc47adc5fa2-9679f75e942f6099&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) (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>; 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@eghe.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: (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851880240324306878740A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=530347512f35a4317aa74f463484426f9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 22:12:32
Delivered Date:	2020/03/04 22:12:33

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787840AA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:20:13
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
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From: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Wednesday, March 4, 2020 4:09 PM
To: 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) 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) <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

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.

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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

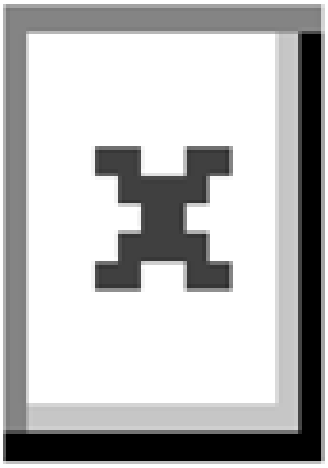
Italy is considering to put more towns in northern Italy on lockdown due to coronavirus

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(tCHESttDPH); tlerome (HHS/OASH); DC; DC; danny.shiau@usushs.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); tlerome (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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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 J(tCHESt)DPH); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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?

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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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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; (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); tlerome (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

1. 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"

4. The Ministry of Defence will provide support as needed

5. There will be increased government communication with parliament, the public and the media

6. Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings

7. 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

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

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Jt(0CHFStDPH); 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

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Subject: RE: Red Dawn Rising Start Feb 29

Oregon's third presumptive coronavirus case 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.

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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_kebEJsGbGIwu95UvuD0knNEWs7NP_2kXS17LgSTdYEMHcb8

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>; (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>; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(tCHFSiDPH) <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@eghe.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

1. 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 non-pharmaceutical public health measures;

2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;

3. 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 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 Mothard; Steven J(0CHFStDPH); tlerome (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 <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 (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>

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: Carver 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>; Mathew 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>; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Ju(CHFS)(DPH) <steven.stack@ky.gov>; tjerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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; (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 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=1e10e27b-4245ebab-1e10d344-0cc47a6a52de-c4ac838b890371df&u=https://www.linkedin.com/posts/activity-6640258596062670849-8TFD
> >
> > 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) (b)(6) ; Daniel (OS/ASPR/SPPR) <Daniel.Dudgen@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>; 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 <Padgett.G@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven J(CHFS)DPH) <steven.stack@ky.gov>; Jerome (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 <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 (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430687B740A4A60745E2-JOHNSON, RO <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>
Sent Date:	2020/03/04 18:20:12
Delivered Date:	2020/03/04 18:20:13

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40A6A6745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d9-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:07:11
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
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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

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From: Tracey McNamara <tmcNamara@westernu.edu>
Sent: Tuesday, March 3, 2020 1:35 PM
To: Carter Mecher <cmecher@charter.net>; Richard Hatchett <richard.hatchett@cepi.net>; 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

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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=IwAR1mBA6yWOsR_kebFJsGbGIwu95UvuDknNEWs7NP_2kXS17UgSTdYFMHcb8

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>; (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>;

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 <PadgettLG@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@uuuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee.gatech@gm.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

1. 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 non-pharmaceutical public health measures;
2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. 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 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

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 <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 (b)(6) MELISSA <melissa.harvey@hq.dhs.gov>; HERBERT <HERBERT.WOLFF@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@usushs.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(tCHEStDPH); tJerome (HHS/OASH); DC; DC; danny.shiau@usushs.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(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) (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; 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@uoubs.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; (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; jwieduc@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@ucuhs.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=fcb8d39e-a0edda4e-fcb8e2a1-0cc47a6a52de-c64e302d82779945&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>; (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>; 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 <PadgettLG@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@uuuhs.edu <danny.shiau@uuuhs.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 (b)(6)
(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D4033243068787E740A4A60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:07:10
Delivered Date:	2020/03/03 21:07:11

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924D3243D6B7874DAA60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/04 18:19:15
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
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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: Dr. Eva K Lee <evalee-gatech@pm.me>
Sent: Wednesday, March 4, 2020 1:54 PM
To: 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) 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) <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

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.

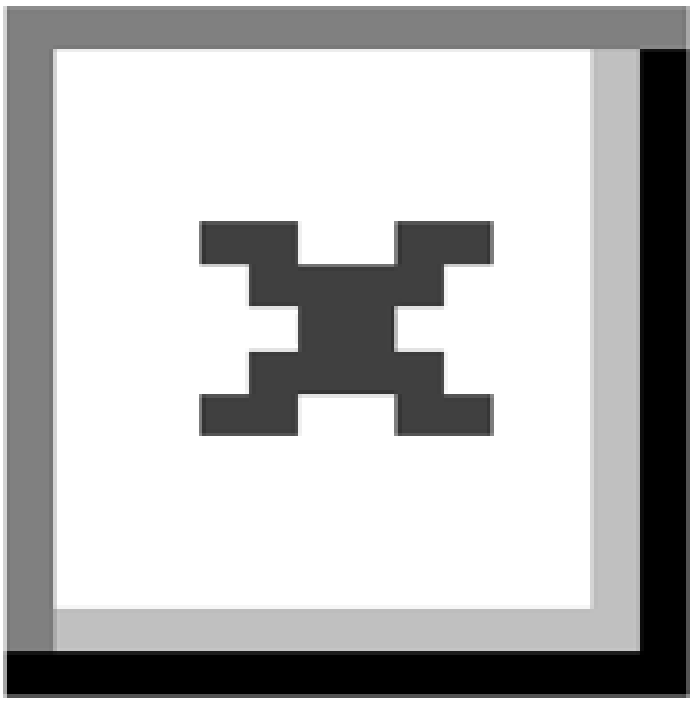
evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile: (b)(6)

Sent with ProtonMail Secure Email.

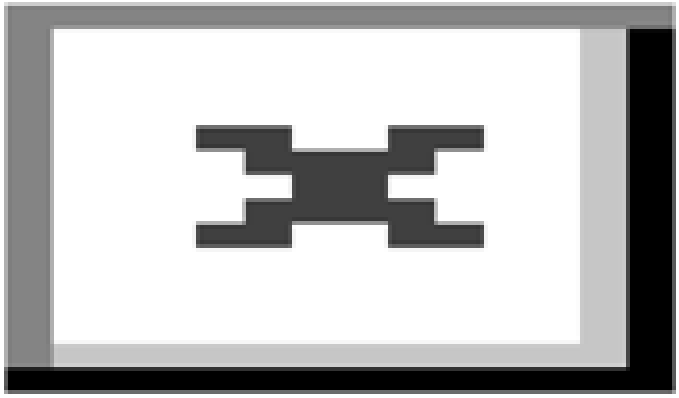
------- Original Message -------

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.



COVID-19 gfx Mar 3



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); tlerome (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)(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@ususbs.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(tCHESt(DPH); tlerome (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

1. • 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"
4. • The Ministry of Defence will provide support as needed
5. • There will be increased government communication with parliament, the public and the media
6. • Social distancing strategies could be implemented, which would include school closures, home-working, and reducing the number of large scale gatherings
7. • 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
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 J(0CHESt(DPH); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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 J(0CHESt(DPH); tlerome (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 coronavirus case 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); tlerome (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."

-

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>; (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>; 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 Ju(tCHFSsDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usushs.edu; Danny Shiau <dshiau@cghc.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

1. • 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 non-pharmaceutical public health measures;
2. • Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. • 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 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); tlerome (HHS/OASH); DC; DC; danny.shiau@ususbs.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 <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 <(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 Ju(tCHFSiDPH) <steven.stack@ky.gov>; tJerome (HHS/OASH) <Jerome.Adams@hhs.gov>; DC <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@ususbs.edu; Danny Shiau <dshiau@eghe.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); tlerome (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 (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) (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; 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 <PadgettLG@state.gov>; Ryan Morhard <Ryan.Morhard@weforum.org>; Steven Jt(ICHFS)(DPH) <steven.stack@ky.gov>; Jerome (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; (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); tlerome (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=cad199e5-968490f6-cad1a8da-0cc47adb5650-e3773e7c3119c001&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) (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
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<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 <PadgettLG@state.gov>; Ryan Morhard
<Ryan.Morhard@weforum.org>; Steven J(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@cghc.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 (b)(6)

(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430687874DA4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484426f9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/04 18:19:14
Delivered Date:	2020/03/04 18:19:15

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E89D403D43D68787E40A6A6745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=530347521f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: Red Dawn Rising Start Feb 29
Date:	2020/03/03 21:07:40
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
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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

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From: Carter Mecher <cmecher@charter.net>
Sent: Tuesday, March 3, 2020 2:24 PM
To: Tracey McNamara <tmcNamara@westernu.edu>; Richard Hatchett <richard.hatchett@cepi.net>; 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>; 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) <jessica.fantinato@usda.gov>; DC <michelle.colby@usda.gov>; danny.shiau@usushs.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

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 R(tCHFStDPH); tlerome (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 coronavirus case 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 R(tCHFStDPH); tlerome (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=IwAR1mBA6yWOsR_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> (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>; 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 <PadgettLG@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@uuuhs.edu; Danny Shiau <dshiau@cghe.org>; richard.hunt@hhs.gov; Dr. Eva K Lee <evalee.gatech@gm.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

1. 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 non-pharmaceutical public health measures;
2. Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts;
3. 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 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 Jr(tCHFS(DPH); 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 08:59
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) (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; 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@usushs.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@uouhs.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 (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) (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; 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 <PadgettLG@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@uouhs.edu; Danny Shiau <dshiau@cahe.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 (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@uouhs.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=ed7fcf72-b12ac661-ed7ffe4d-0cc47adb5650-691d744a1036b588&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) (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 <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@uouhs.edu <danny.shiau@uouhs.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:(b)(6)
(b)(6)

Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430687B740A4A60745E2-JOHNSON, RO <Robert.Johnson@hhs.gov>
Recipient:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f463484422d9-Bright, Ric <Rick.Bright@hhs.gov>
Sent Date:	2020/03/03 21:07:39
Delivered Date:	2020/03/03 21:07:40

From:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924033243068787E740A6A60745E3-JOHNSON, RO <Robert.Johnson@hhs.gov>
To:	Bright, Rick (OS/ASPR/BARDA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53034752f35a4317aa74f963484f42d39-Bright, Ric <Rick.Bright@hhs.gov>
Subject:	FW: [EXTERNAL] RE: Red Dawn Reflux, Start 2020 0319, 10:35 EDT
Date:	2020/03/19 20:18:24
Priority:	Normal
Type:	Note

Robert Johnson, Ph.D.
Director, Influenza and Emerging Infectious Diseases Division
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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: Dr. Eva Lee (b)(6)
Sent: Thursday, March 19, 2020 8:04 PM
To: Carter Mecher <cmecher@charter.net>
Cc: Dr. Eva K Lee <evalee-gatech@pm.me>; Arthur Kellermann <arthur.kellermann@usuhs.edu>; Mecher, Carter (VA.GOV) <carter.mecher@va.gov>; Caneva, Duane (DHS.GOV) <duane.caneva@hq.dhs.gov>; Jamison Day (b)(6) Logan, Linda L <llogan@cvm.tamu.edu>; Dodgen, Daniel (OS/ASPR/SPPR) <Daniel.Dodgen@HHS.GOV>; Venkayya, Rajeev <rajeev.venkayya@takeda.com>; Ronny Jackson (b)(6) alexander.eastman@hq.dhs.gov; Mansoura, Monique K. <mmansoura@mitre.org>; LLogandakar (b)(6) Walters, William (STATE.GOV) <walterswa2@state.gov>; Parker Jr, Gerald W

<gparker@cvm.tamu.edu>; DeBord, Kristin (OS/ASPR/SPPR) <Kristin.DeBord@hhs.gov>; EVANS, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; Jerry Mothershead <jmothershead@patronusmedical.com>; Kevin Montgomery <kevin@collaborate.org>; Phillips, Sally (OS/ASPR/SPPR) <Sally.Phillips@hhs.gov>; DC <michelle.colby@usda.gov>; Matthew J CIV USARMY (USA) (b)(6) Andy Desjardins, MD <adesjardins@patronusmedical.com>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; Yeskey, Kevin (OS/ASPR/IO) <Kevin.Yeskey@hhs.gov>; Danny Shiau <danny.shiau@usuhs.edu>; Martin, Greg (state.gov) <MartinGJ@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Disbrow, Gary (OS/ASPR/BARDA) <Gary.Disbrow@hhs.gov>; Borio, Luciana <lborio@iqt.org>; Redd, John (OS/ASPR/SPPR) <John.Redd@hhs.gov>; KAUSHIK, SANGEETA <sangeeta.kaushik@hq.dhs.gov>; eric.mcdonald@sdcounty.ca.gov; CHRISTOPHER ALLEN (b)(6) Richard Tubb (b)(6) Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Baric, Ralph S <rbaric@email.unc.edu>; Schnitzer, Jay J. <jschnitzer@mitre.org>; jwleduc@utmb.edu; HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; Lisa Koonin (b)(6) Larry G <padgetlg@state.gov> (b)(6) mvcallahan@mgh.harvard.edu; Lawler, James V <james.lawler@unmc.edu>; Ignacio, Joselito (FEMA.DHS.GOV) <joselito.ignacio@fema.dhs.gov>; David <dmarcozzi@som.umaryland.edu>; Hassell, David (Chris) (OS/ASPR/IO) <David.Hassell@hhs.gov>; William Lang <wlang@worldclinic.com>; Hanfling, Dan <dhanfling@iqt.org>; Will Gaskins <will.gaskins@efiia.com>; Richard Hatchett <richard.hatchett@cepi.net>; david.a.tarantino@cbp.dhs.gov; Lee, Scott (OS/ASPR/EMMO) <Scott.Lee@hhs.gov>; Lauren Johnston <ljohnston@patronusmedical.com>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Tom Bossert <tom.bossert@me.com>; Johnson, Robert (OS/ASPR/BARDA) <Robert.Johnson@hhs.gov>; HAMILTON, CAMERON <cameron.hamilton@hq.dhs.gov>; Adams, Jerome (HHS/OASH) <Jerome.Adams@hhs.gov>; david.gruber@dshs.texas.gov; Wade, David <david.wade@hq.dhs.gov>; Lewis Hofmann (b)(6) WILKINSON, THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; Wolfe, Herbert (DHS.GOV) <herbert.wolfe@hq.dhs.gov>; CharitytA@CDPH <charity.dean@cdph.ca.gov>; Jim McLeod <jmcleod@patronusmedical.com>; Taylor, Justin (CTR) <justin.taylor@associates.hq.dhs.gov>; Marinissen, Maria (HHS/OS/OGA) <Maria.Marinissen@hhs.gov>; Sutter, Mark <mark.sutter@hq.dhs.gov>; Mark Keim, MD MBA <mark@disasterdoc.org>
Subject: Re: [EXTERNAL] RE: Red Dawn Reflux, Start 2020 0319, 10:35 EDT

Carter, this is very useful. Thank you. For the hospital resource allocation analysis that I sent around today, I use 20% of the symptomatic patients need hospitalization. So that is 2/3 * 20% = 13.33% of the infected population. The 1/3 asymptomatic, I don't know what they will do since they have no symptoms. The good thing is, with NPI, these people without symptoms will not be going out so much hence reduce the chance of massive spreading.

Once NPI is in place, we should be able to contain. Are we good there for every state? **Then testing becomes key for early treatment to minimize death. Please note if there is any intent to setup medical tents, it is critical to setup fast and early on. It is now.** Local still ask me about the test kits. I hope some colleagues here can shed lights on that.

Hong Kong is quarantining all travelers from out of the country. They use the Disney-type wrist bands for monitoring. State Department is asking Americans to come home (from the news). In that case, we will need many test kits available for test and possible quarantine facilities. And TSA officers cannot be wearing paper / plastic masks to inspect the planes. Perhaps if there are

no N95 for them, at least surgical masks? I have no idea how surgical masks may work, but it seems more appropriate than paper/plastic masks.

If there are not sufficient N95 masks no matter how massive we can produce, perhaps we should use UV sterilization to "clean" them for re-use? My doctors said there are many N95 in Honduras.

On Thu, Mar 19, 2020 at 7:42 PM Carter Mecher <cmecher@charter.net>wrote:
A few updates.

1. Update from Seattle ICU experience from JAMA (see attached)

2. MMWR report on US cases https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm

As of March 16, a total of 4,226 COVID-19 cases had been reported in the United States, with reports increasing to 500 or more cases per day beginning March 14 (Figure 1). Among 2,449 patients with known age, 6% were aged ≥85, 25% were aged 65–84 years, 18% each were aged 55–64 years and 45–54 years, and 29% were aged 20–44 years (Figure 2). Only 5% of cases occurred in persons aged 0–19 years.

Among 508 (12%) patients known to have been hospitalized, 9% were aged ≥85 years, 26% were aged 65–84 years, 17% were aged 55–64 years, 18% were 45–54 years, and 20% were aged 20–44 years. Less than 1% of hospitalizations were among persons aged ≤19 years (Figure 2). The percentage of persons hospitalized increased with age, from 2%–3% among persons aged ≤9 years, to ≥31% among adults aged ≥85 years. (Table).

Among 121 patients known to have been admitted to an ICU, 7% of cases were reported among adults ≥85 years, 46% among adults aged 65–84 years, 36% among adults aged 45–64 years, and 12% among adults aged 20–44 years (Figure 2). No ICU admissions were reported among persons aged ≤19 years. Percentages of ICU admissions were lowest among adults aged 20–44 years (2%–4%) and highest among adults aged 75–84 years (11%–31%) (Table).

Among 44 cases with known outcome, 15 (34%) deaths were reported among adults aged ≥85 years, 20 (46%) among adults aged 65–84 years, and nine (20%) among adults aged 20–64 years. Case-fatality percentages increased with increasing age, from no deaths reported among persons aged ≤19 years to highest percentages (10%–27%) among adults aged ≥85 years (Table) (Figure 2).

Sent from Mail for Windows 10

From: Dr. Eva K Lee
Sent: Thursday, March 19, 2020 5:54 PM
To: Arthur Kellermann
Cc: Dr. Eva Lee; Carter Mecher; Mecher, Carter; Caneva, Duane; Jamison Day; Logan, Linda L; Dodgen, Daniel (OS/ASPR/SPPR); Venkayya, Rajeev; Ronny Jackson; Eastman, Alexander;

Mansoura, Monique K.; LLogandakar; Walters, William (STATE GOV); Parker Jr, Gerald W; DeBord, Kristin (OS/ASPR/SPPR); EVANS, MARIEFRED; Jerry Mothershead; Kevin Montgomery; Phillips, Sally (OS/ASPR/SPPR); DC; Matthew J CIV USARMY (USA); Andy Desjardins, MD; Fantinato, Jessica (USDA.GOV); Yeskey, Kevin; Danny Shiau; Martin, Greg (state.gov); Ryan Morhard; Disbrow, Gary (OS/ASPR/BARDA); Borio, Luciana; Redd, John (OS/ASPR/SPPR); KAUSHIK, SANGEETA; eric.mcdonald@sdcounty.ca.gov; CHRISTOPHER ALLEN; Richard Tubb; Cordts, Jerome (CTR); Baric, Ralph S; Schnitzer, Jay J.; jwleduc@utmb.edu; HARVEY, MELISSA; Lisa Koonin; Larry G; (b)(6) mvcallahan@mgh.harvard.edu; Lawler, James V; Ignacio, Joselito; David; Hassell, David (Chris) (OS/ASPR/IO); William Lang; Hanfling, Dan; Will Gaskins; Richard Hatchett; TARANTINO, DAVID A; Lee, Scott (OS/ASPR/EMMO); Lauren Johnston; Steven Jt(tCHFStDPH); Tom Bossert; Johnson, Robert (OS/ASPR/BARDA); HAMILTON, CAMERON; Adams, Jerome (HHS/OASH); David Gruber; Wade, David; Lewis Hofmann; WILKINSON, THOMAS; WOLFE, HERBERT; CharitytA@CDPH; Jim McLeod; Taylor, Justin (CTR); Marinissen, Maria (HHS/OS/OGA); Sutter, Mark; Mark Keim, MD MBA
Subject: RE: [EXTERNAL] RE: Red Dawn Reflux, Start 2020 0319, 10:35 EDT

Art, great to see you here. Indeed, thanks for articulating this and also mentioning of the covid-19 checker. Everything you said is very important. NPI such as school closure and tele-work can do wonder as this is part of the self-quarantine and social distancing. Individuals need guidance to help them succeed and to help them understand their risk factors.

We(me and Brian) too have developed a self risk assessment app. It's good that CDC has one. It should be put out in public so that individuals can use it wisely. Call centers may be useful as a way to supplement the Q&A process regarding personal health conditions.

Very best, Eva

evalee-gatech@pm.me
https://newton.isye.gatech.edu/DrLee/
mobile:(b)(6)

Sent with ProtonMail Secure Email.

-------- Original Message --------
On Thursday, March 19, 2020 5:27 PM, Arthur Kellermann <arthur.kellermann@usuhs.edu>wrote:

> Dr. Lee and Colleagues:
>
> A key element of NPI social isolation is giving the worried well or equally important the "worried ill" (mild to moderate) an easy way to self-assess their symptoms, risk factors and preexisting conditions, and get personalized guidance on what to do. Without this guidance, many healthcare systems are being

needlessly burdened by individuals who don't need hospitalization but are coming to ERs anyway hoping for COVID testing. Each patient requires a face-to-face encounter by someone decked out in PPE. We don't have enough PPE to use it up this way before the big wave(s) hit.

11 years ago, I was part of an Emory/CDC/RAND effort during the H1N1 pandemic that managed to stand up a web-based flu checker on Flu.gov and Microsoft.com (see attached). We called it "Strategy for Offsite Rapid Triage" or SORT. Because it hadn't been done before and there was a lot of angst about liability, it took half the pandemic to get the concept through the government's lawyers. But ultimately it went up and was used more than 400,000 times.

It makes sense for the US to embrace a COVID checker. China figured this out early. According to a state-sponsored multipage ad in The Economist Magazine, they had AI "virtual assistants" supplement their call centers. S Korea has a symptom checker version. I'm told Canada does, too.

Over the past several weeks, Emory U has updated the prior SORT website with the help of an Atlanta tech company. The new version is vastly better than the original one - my campus helped beta test it today. It has many new features including the capability to track symptom evolution over days, and analytics that could be invaluable to local and state health depts as well as feds. On a smarphone it looks and works like an app but can be updated in near real time to reflect latest data on risk. It's also very easy to use. Emory kept the CDC appraised of the effort, and it looks like the CDC released their own symptom checker on their website today. It appears to be based on the earlier SORT website too.

With a little luck, the public will respond to either or both as awareness that they are available takes hold.

AK

Arthur L. Kellermann, MD, MPH, FACEP

Professor and Dean

F Edward Hebert School of Medicine – "America's Medical School"

Uniformed Services University of the Health Sciences

Bethesda, MD

301-295-3016

From: Dr. Eva Lee [mailto:[redacted]
Sent: Thursday, March 19, 2020 3:21 PM
To: Carter Mecher <cmecher@charter.net>; Dr. Eva K Lee <evalee-gatech@pm.me>
Cc: Mecher, Carter <Carter.Mecher@va.gov>; Caneva, Duane <duane.caneva@hq.dhs.gov>; Jamison Day [redacted]; Logan, Linda L <llogan@evm.tamu.edu>; Dodgen, Daniel (OS/ASPR/SPPR) <daniel.dodgen@hhs.gov>; Venkayya, Rajeev <rajeev.venkayya@takeda.com>; Ronny Jackson [redacted]; Eastman, Alexander <alexander.eastman@hq.dhs.gov>; Mansoura, Monique K. <mmansoura@mitre.org>; LLogandakar [redacted]; Walters, William (STATE.GOV) <walterswa2@state.gov>; Parker Jr, Gerald W <gparker@evm.tamu.edu>; DeBord, Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>; EVANS, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>; Jerry Mothershead <jmothershead@patronusmedical.com>; Kevin Montgomery <kevin@collaborate.org>; Phillips, Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>; DC <michelle.colby@usda.gov>; Matthew J CIV USARMY (USA) [redacted]; Andy Desjardins, MD <adesjardins@patronusmedical.com>; Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>; Yeskey, Kevin <kevin.yeskey@hhs.gov>; danny.shiau@usuhs.edu; Martin, Greg (state.gov) <martingj@state.gov>; Ryan Morhard <ryan.morhard@weforum.org>; Disbrow, Gary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>; Borio, Luciana <lborio@iqt.org>; Redd, John (OS/ASPR/SPPR) <john.redd@hhs.gov>; KAUSHIK, SANGEETA <sangeeta.kaushik@hq.dhs.gov>; eric.mcdonald@sdcounty.ca.gov; CHRISTOPHER ALLEN [redacted]; Richard Tubb [redacted]; Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>; Baric, Ralph S <rbaric@email.unc.edu>; Schnitzer, Jay J. <jschnitzer@mitre.org>; jwleduc@utmb.edu; HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>; Lisa Koonin [redacted]; Larry G <padgetlg@state.gov>; [redacted] mvcallahan@mgh.harvard.edu; Lawler, James V

<james.lawler@unmc.edu>; Ignacio, Joselito <joselito.ignacio@fema.dhs.gov>; David <dmarcozzi@som.umaryland.edu>; Hassell, David (Chris) (OS/ASPR/IO) <david.hassell@hhs.gov>; William Lang <wlang@worldclinic.com>; Hanfling, Dan <dhanfling@igt.org>; Will Gaskins <will.gaskins@efiia.com>; Richard Hatchett <richard.hatchett@cepi.net>; TARANTINO, DAVID A <david.a.tarantino@cbp.dhs.gov>; Lee, Scott (OS/ASPR/EMMO) <scott.lee@hhs.gov>; Lauren Johnston <ljohnston@patronusmedical.com>; Steven Jt(tCHFStDPH) <steven.stack@ky.gov>; Arthur L.. Kellerman MD, MPH, FACEP <arthur.kellermann@usuhs.edu>; Tom Bossert <tom.bossert@me.com>; Johnson, Robert (OS/ASPR/BARDA) <robert.johnson@hhs.gov>; HAMILTON, CAMERON <cameron.hamilton@hq.dhs.gov>; Adams, Jerome (HHS/OASH) <jerome.adams@hhs.gov>; David Gruber (david.gruber@dshs.texas.gov) <david.gruber@dshs.texas.gov>; Wade, David <david.wade@hq.dhs.gov>; Lewis Hofmann (b)(6) ; WILKINSON, THOMAS <THOMAS.WILKINSON@hq.dhs.gov>; WOLFE, HERBERT <HERBERT.WOLFE@hq.dhs.gov>; CharityA@CDPH <charity.dean@cdph.ca.gov>; Jim McLeod <jmcleod@patronusmedical.com>; Taylor, Justin (CTR) <justin.taylor@associates.hq.dhs.gov>; Marinissen, Maria (HHS/OS/OGA) <Maria.Marinissen@hhs.gov>; Sutter, Mark <mark.sutter@hq.dhs.gov>; Mark Keim, MD MBA <mark@disasterdoc.org>
Subject: Re: [EXTERNAL] RE: Red Dawn Reflux, Start 2020 0319, 10:35 EDT

Guys, I have a million graphs but I am trying to include a few representative ones. This contradicts Neil Ferguson's analysis that beds alone is all tha we need. We MUST have NPI social isolation and then they work wonder. This is a city of 1% -- Eric, this is close to San Diego. I use 30 infected individuals to start and roll out the resources. I can give you many more graphs, please see if this makes sense. Note -- Delay is not good -- resources that come late do not help us. So please policy makers -- I am sure they are acting rapidly as they see the dire situations in hospitals.

On Thu, Mar 19, 2020 at 3:17 PM Carter Mecher <cmecher@charter.net>wrote:

> Singapore seeing an uptick. Case counts increasing sharply over the past several days.

Error! Filename not specified.

Error! Filename not specified.

Hong Kong also seeing an increase, but holding close to linear growth.

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Sent from Mail for Windows 10

From: Mecher, Carter
Sent: Thursday, March 19, 2020 1:59 PM
To: Caneva, Duane; Jamison Day; Logan, Linda L; Dodgen, Daniel (OS/ASPR/SPPR); Venkayya, Rajeev; Ronny Jackson; Eastman, Alexander; Mansoura, Monique K.; LLogandakar; Walters, William (STATE.GOV); Parker Jr, Gerald W; DeBord, Kristin (OS/ASPR/SPPR); EVANS, MARIEFRED; Jerry Mothershead; Kevin Montgomery; Phillips, Sally (OS/ASPR/SPPR); DC; Matthew J CIV USARMY (USA); Andy Desjardins, MD; Fantinato, Jessica (USDA.GOV); Yeskey, Kevin; danny.shiau@usuhs.edu; Martin, Greg (state.gov); Ryan Morhard; Disbrow, Gary (OS/ASPR/BARDA); Borio, Luciana; Redd, John (OS/ASPR/SPPR); Dr. Eva Lee; KAUSHIK, SANGEETA; eric.mcdonald@sdcounty.ca.gov; CHRISTOPHER ALLEN; Richard Tubb; Cordts, Jerome (CTR); Baric, Ralph S; Schnitzer, Jay J.; jwleduc@utmb.edu; HARVEY, MELISSA; Lisa Koonin; Larry G; (b)(6) mvcallahan@mgh.harvard.edu; Lawler, James V; Ignacio, Joselito; David; Hassell, David (Chris) (OS/ASPR/IO); William Lang; Hanfling, Dan; Will Gaskins; Richard Hatchett; TARANTINO, DAVID A; Lee, Scott (OS/ASPR/EMMO); Lauren Johnston; Steven Ju(CHFS)DPH); Arthur L., Kellerman MD, MPH, FACEP; Tom Bossert; Johnson, Robert (OS/ASPR/BARDA); HAMILTON, CAMERON; Adams, Jerome (HHS/OASH); David Gruber (david.gruber@dshs.texas.gov); Wade, David; Lewis Hofmann; WILKINSON, THOMAS; WOLFE, HERBERT; CharitytA@CDPH; Jim McLeod; Taylor, Justin (CTR); Marinissen, Maria (HHS/OS/OGA); Sutter, Mark; Mark Keim, MD MBA; 'cmecher@charter.net'
Subject: RE: [EXTERNAL] RE: Red Dawn Reflux, Start 2020 0319, 10:35 EDT

I heard the VP announce domestic production of 35M per month for one manufacturer. The other mentioned was a little less. 35M per month is about 1M per day. We have 5,000 hospitals in US so that equates to about 200 N95s per hospital per day. What is our daily burn rate? It helps but likely not nearly enough. Even if we double that—400 per day per hospital. Better, but not enough.

One strategy to reduce PPE demand is to shift outpatient care to virtual care as quickly as we can. How could we turn ILINet around and use it as a means to

broadcast to the ILINet providers and get them to move to virtual care—especially for all the ILI? The ILINet providers are seeing about 1.5M patients each week. On an average week in the US, there are 9.2M primary care/family practice visits. So ILINet providers account for about 14% of all the primary care/FP visits in the US. That is a good chunk to start with. Why can't CDC and the state and local PH depts reverse the flow of info back to them to urge them to move quickly to virtual care. We can monitor their effectiveness thru ILINet (monitor for a dramatic drop off in total visits and ILI visits). I'm assuming they are not counting ILI telephone visits in the ILI totals.

Sent with BlackBerry Work
(www.blackberry.com)

From: Caneva, Duane <duane.caneva@hq.dhs.gov>

Date: Thursday, Mar 19, 2020, 12:53 PM

To: Jamison Day (b)(6), Logan, Linda L <llogan@cvm.tamu.edu>, Dodgen, Daniel (OS/ASPR/SPPR) <daniel.dodgen@hhs.gov>, Venkayya, Rajeev <rajeev.venkayya@takeda.com>, Ronny Jackson (b)(6), Eastman, Alexander <alexander.eastman@ha.dhs.gov>, Mansoura, Monique K. <mmansoura@mitre.org>, LLogandakar (b)(6), Walters, William (STATE.GOV) <walterswa2@state.gov>, Parker Jr, Gerald W <gparker@cvm.tamu.edu>, DeBord, Kristin (OS/ASPR/SPPR) <kristin.debord@hhs.gov>, EVANS, MARIEFRED <mariefred.evans@associates.hq.dhs.gov>, Jerry Mothershead <jmothershead@patronusmedical.com>, Kevin Montgomery <kevin@collaborate.org>, Phillips, Sally (OS/ASPR/SPPR) <sally.phillips@hhs.gov>, DC <michelle.colby@usda.gov>, Matthew J CIV USARMY (USA) (b)(6), Andy Desjardins, MD <adesjardins@patronusmedical.com>, Fantinato, Jessica (USDA.GOV) <jessica.fantinato@usda.gov>, Yeskey, Kevin <kevin.yeskey@hhs.gov>, danny.chiau@usuhs.edu <danny.chiau@usuhs.edu>, Martin, Greg (state.gov) <martingj@state.gov>, Ryan Morhard <ryan.morhard@weforum.org>, Disbrow, Gary (OS/ASPR/BARDA) <gary.disbrow@hhs.gov>, Borio, Luciana <lborio@ipt.org>, Redd, John (OS/ASPR/SPPR) <john.redd@hhs.gov>, Dr. Eva Lee (b)(6), Mecher, Carter <Carter.Mecher@va.gov>, KAUSHIK, SANGEETA <sangeeta.kaushik@hq.dhs.gov>, eric.mcdonald@sdcounty.ca.gov <eric.mcdonald@sdcounty.ca.gov>, CHRISTOPHER ALLEN (b)(6), Richard Tubb (b)(6), Cordts, Jerome (CTR) <jerome.cordts@associates.hq.dhs.gov>, Barie, Ralph S <rbarie@email.unc.edu>, Schnitzer, Jay J. <jschnitzer@mitre.org>, jwlodac@utmb.edu <jwlodac@utmb.edu>, HARVEY, MELISSA <melissa.harvey@hq.dhs.gov>, Lisa Koonin (b)(6), Larry G <padgetlg@state.gov> (b)(6), (b)(6), mccallahan@mgh.harvard.edu <mccallahan@mgh.harvard.edu>, Lawler, James V <james.lawler@unmc.edu>, Ignacio, Joselito <joselito.ignacio@fema.dhs.gov>, David <dmarcozzi@som.umaryland.edu>, Hassell, David (Chris) (OS/ASPR/IO) <david.hassell@hhs.gov>, William Lang <wlang@worldclinic.com>, Hanfling, Dan <dhanfling@ipt.org>, Will Gaskins <will.gaskins@effia.com>, Richard Hatchett <richard.hatchett@cepi.net>, TARANTINO,

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Subject: [EXTERNAL] RE: Red Dawn Reflux, Start 2020 0319, 10:35 EDT

The President announced today that legislation passed last night removes liability to the makers of N95 masks for an industrial setting to be used in a healthcare setting. This comparison by 3M comparing a surgical N95 to an industrial N95 is very helpful. Shows why this could make available millions of more masks.

https://multimedia.3m.com/mws/media/1794572O/surgical-n95-vs-standard-n95-which-to-consider.pdf

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From: Jamison Day (b)(6)
Sent: Subject: Re: Red Dawn Reflux, Start 2020 0319, 10:35 EDT

Contact tracing solutions provide some promise toward sustainable COVID-19 containment:

https://protect2.fireeye.com/url?k=fa8fbba6-a6db928d-fa8f8a99-0cc47a6d17cc-fe800807e3a95d07&u=https://github.com/BDI-pathogens/covid-19_instant_tracing/blob/master/Policy%20forum%20-%20COVID-19%20containment%20by%20herd%20protection.pdf

Could the US overcome the ethical and socially acceptable barriers to 60% adoption?

Personally, I'm concerned about the government working with big tech to drive such efforts given track records in (not?) balancing privacy with value capture (https://www.washingtonpost.com/technology/2020/03/17/white-house-location-data-coronavirus/).

Alternative… First thoughts towards a protocol/standard for privacy-respecting contact tracing apps:

1. Store encrypted personal location data locally on the device.

2. Only retain data for a rolling time horizon (~21 days = max(incubation) + 7)

3. Provide regular COVID-19/ILI self-assessment &self-reporting of clinical test request/administration/result

 a. There is potential here to integrate with Medical &Public Health provider data management activity (link to user_id / public key)

4. For identified high-risk users, send *minimal, anonymized, secure* location data to central server(s)

 a. Minimal: Only send location data from likely infectious period(s) (if timing is known for symptom onset or high-risk contact)

 b. Anonymized: Obscure location data for most common locations (i.e. home/work — index data on location boundaries)

 c. Secure: Location data is already encrypted, share decryption key with secure key management server(s)

5. Apps regularly query for high-risk movement overlapping with their own location movement boundaries

 a. If results exist, the app requests keys (audited), decrypts data, &compares detailed location and timing for high risk

 b. Update the user's infection risk rating(s) based on new geo-temporal contact interactions

…

Corollaries:

- Minimal sharing of anonymized high-value location data, encryption protected

- Individuals can audit others' requests of their infectious period location information

- User's shared data can be expired and/or deleted with kill-switch (i.e. removal of decryption key)

- Requests for communication with location contacts can be initiated (without providing prior identifying information)

- Near-real-time heat maps of high-risk areas can inform individual movement decisions &localized policy shifts

Hope this is useful food for thought. Or just a start towards discussing some standards for inter-op of solutions.

On March 19, 2020 at 08:36:39, Caneva, Duane (duane.caneva@hq.dhs.gov) wrote:

> Please use this string going forward as of March 19, 2020, 10:35 EDT.

Duane C. Caneva, MD, MS

Chief Medical Officer

Department of Homeland Security

202-254-6901 (o)

(b)(6) (c)

Duane.Caneva@hq.dhs.gov

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Sender:	Johnson, Robert (OS/ASPR/BARDA) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0851E8924032430683787404A4A6874SE3-JOHNSON, RO <Robert.Johnson@hhs.gov>
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Sent Date:	2020/03/19 20:18:22
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