
Subject: [Records Center] General Records Request :: G000492-053020
Date: Tuesday, December 1, 2020 at 9:06:04 PM Pacific Standard Time
From: King County Public Records
To: foia@americanoversight.org
CC: James.Apa@kingcounty.gov

EXTERNAL SENDER

--- Please respond above this line ---



December 01, 2020

Re: G000492-053020

Dear Mr. Daniel McGrath:

Thank you again for the public records request which the King County Executive Branch received from you on March 05, 2020. We understand you are seeking the following records:

"All email communications between (1) Public Health Director Patty Hayes and/or Health Officer Jeff Duchin, and (2) anyone communicating from an email address ending in cdc.gov, eop.gov, or hhs.gov."

Multiple installments of records responsive to your request are available to you now in the King County Public Records Center. Click the link below to retrieve the records. Please note that the link works best with the Google Chrome browser, and any pop-up blockers need to be turned off.

[General Records Request - G000492-053020](#)

We continue to gather and review responsive records, and we anticipate that we will be able to make another another installment of responsive records, should they exist, available to you in approximately 6-8 weeks.

Please let me know if you have any questions or if you wish to withdraw your request.

Sincerely,

Jonathan Bibler, Public Records Officer
Health Information, Release and Records Management
Public Health – Seattle & King County

To monitor the progress or update this request please log into the



From: DOH-LOFR (DOH)
Sent: Friday, February 21, 2020 7:52 AM PST
To: DOH DL OS PHEPR Program Update Calls; DOH DL Agency Leadership Team; DOH DL Agency Executive Team; DOH DL Agency Deputies Group; DOH DL OS Public Health and Medical Disaster Advisory Group; DOH DL OS LHJ Leadership; DOH DL OS Tribal Emergency Contacts; Davis, Jerrod (DOH); DOH-IC (DOH); DOH-OSC (DOH); Matheson, Jasmine S (DOH); Close, Natasha (DOH); Wasserman, Cathy (DOH); DOH-PSC (DOH); DOH-RESL (DOH); DOH-SITL (DOH); DOH-FSC (DOH); DOH-LOFR (DOH); DOH-PIO (DOH); Gulati, Reena (CDC/OID/NCEZID); DOH DL Agency IMT Members; DOH Duty Officer; 'matthew.dudley@dhw.idaho.gov'; 'php.duty-officer@state.or.us'; 'hlth.dutyofficer@gov.bc.ca'; 'akiko.saito@dhsosha.state.or.us'; 'Denise.Kern@dhw.idaho.gov'; 'jeff.cartwright@wsfc.wa.gov'; Lucero, Esther (DOH); Maddox, Gregg (DOH); DOH DL OS Tribal Clinic Directors; DOH DL OS Tribal Health Directors; Weiser, Tom (DOH); 'Carey.L.Palm@state.or.us'; DOH DL OS PHEPR LERC; MaryKnisely; 'bmarsalli@wacmhmc.org'; Barron, Coleen A (DOH); Ostash, Alla (DOH); Perez-Orsorio, Ailyn C (DOH); Byerly, Leslie E (DOH); 'Meagan.kay@kingcounty.gov'; 'healtheoc@kingcounty.gov'; 'vance.kawakami@kingcounty.gov'; 'kate.stein@kingcounty.gov'; 'Matthew.Ellis@ihs.gov'; 'jkaliner@clark.edu'; 'dstephenson@wsu.edu'; 'R.canady@islandcountywa.gov'; Artzis, Sam (DOH); Bausher, John (DOH); Blaske, Laura A (DOH); Bodden, Jaime (DOH); Bowman, Brad (DOH); Brzezny, Alex (DOH); Chen, Anthony L-T, MD, MPH (DOH); Couture, Melissa (DOH); Duchin, Jeff; Edstam, James (DOH); Everson, Teresa (DOH); Flake, Marie D (DOH); Houser, Glenn (DOH); James, Frank (DOH); Jansen, Anneke (DOH); Jecha, Larry (DOH); Jenks, Lauren (DOH); Krager, Steven (DOH); Larson, Mark (DOH); Laxson, Joe D (DOH); Leibrand, Howard (DOH); Lindquist, Scott W (DOH); Locke, Tom (DOH); Lofy, Kathy H (DOH); Lutz, Bob (DOH); McCarthy, John Dr (DOH); Melnick, Alan (DOH); Monteagudo, Ralph (DOH); Person, Amy, DR (DOH); Phillips, Todd J (DOH); Remsbecker, Jean T (DOH); Spitters, Christopher (DOH); Stein, Daniel (DOH); Stern, Greg (DOH); Turner, Nigel (DOH); Turner, Susan (DOH); Unthank, Allison (DOH); Wood, Rachel, Dr (Lewis) (DOH); Worsham, Dennis; Adkinson, Theresa (DOH); Anderson, J.P. (DOH); Bergener, Terry (DOH); Bischoff, Chris (DOH); Brastad, Andy (DOH); Clark, Amelia (DOH); Debolt, Meghan (DOH); Delahunt, Regina (DOH); Dzedzy, Ed (DOH); Frederick, Shawn (DOH); Fresco, Andre (DOH); Goelz, Mary (DOH); Grellner, Keith (DOH); Guse, Vicki (DOH); Hayes, Patty; Henderson, Troy (DOH); Higman, Keith (DOH); Holden, Karolyn (DOH); Johnson, Jennifer / Skagit Co (DOH); Jones, Lauri (DOH); Kavanagh, David (DOH); Kirkpatrick, Vicki (DOH); Kling, Barry (DOH); Lamb, Tristen (DOH); Lanman, Martha (DOH); Oien-Lindstrom, Katie; Richards, Kirby; Riley, Mike (DOH); Schanz, Matt (DOH); Slaughter, Schelli (DOH); Todorovich, Jessica L (DOH); Tompkins, Mark / San Juan (DOH); Wiesman, John (DOH); Windom, David (DOH); Woodbury, Brady (DOH); Zaccaria, Jason (DOH); 'ffa0@cdc.gov'; 'hhd7@cdc.gov'; 'gsy1@cdc.gov'; 'kdr6@cdc.gov'; DOH-OSC3 (DOH); Susan Pelaez; HECC@nwahrn.org; aaron.resnick@nwahrn.org; ASPR.R10@hhs.gov; Wright, Christopher P (ATG); Sonju, Eric A. (ATG); Roper, Joyce A (ATG); DOH nCoV EPI; Shannon, David (DSHS/FFA); Doug.Jones@confluencehealth.org; khernandez@snohd.org; john.r.holwege2.civ@mail.mil; paul.m.faestel.mil@mail.mil; Hawkins, Vivian (DOH); Adrian Dominguez; Bermudez, Maryjane (DOH); ddressler@nativeproject.org; Estasia_collins@co.columbia.wa.us; Pecha, Monica J (DOH); DOH-LOFR2 (DOH); Soldier, Robert (DSHS/FFA); Segura, Serena (DSHS/FFA); Teresa.l.mathews@puyalluptribe-nsn.gov; eocscfops@cdc.gov; Linares-Hengen, Travis (MIL); Wakefield, Harry D; MacGregor, Logan (DSHS); Christine.Hanson@confluencehealth.org; Moen, Anne (DOH); Amy.Anderson@kitsappublichealth.org; ERIC.N.GEBBIE@dhsosha.state.or.us; DEWAYNE.R.HATCHER@dhsosha.state.or.us; DANIELLE.Y.BROWN@dhsosha.state.or.us; SHANNON.Q.ALLAIN@dhsosha.state.or.us; MELISSA.E.POWELL@dhsosha.state.or.us; Peter.mackwell@dhsosha.state.or.us; CANDY.K.CATES@dhsosha.state.or.us; JILL.F.SNYDER@dhsosha.state.or.us; Morse, Amanda (DOH); Nate Matthews-Trigg; Schmitz, Lou (DOH); DOH DL OS PHEPR RERC; Erika Katt; dutyofficer@tpchd.org; brian.ritchie@alaska.gov; Karl Edwards; Zekarias, Yacob (DCYF); Shogren, Andrew (DOH); Platero, Laura (DOH); lo@snohd.org; IC@snohd.org; PIO@snohd.org; AFSC@snohd.org; OSC@snohd.org; PSC@snohd.org; LSC@snohd.org; smith@co.skamania.wa.us; Limmeroth, Mimi (DES); Sadler, Ryan T. (DOC); Kubler, Michael (DOH); larry.smith4@redcross.org; Dooley, Danielle W (DOH); Turnberg, Wayne (DOH); Spencer, Cindy (DCYF); xochitl.l.castaneda@uscg.mil; lee.d.bacon@uscg.mil; MacLeod, Kim (DOH); david.hoffman@muckleshoot-health.com; Fong, Yolanda (DOH); Phipps, Beth (DOH); ornela.abazi@kitsappublichealth.org; arel.solie; Rainville, Michael A. (DOC); Mulvey, Adam (MIL); Wicklund, Patrick (MIL); Jeremy.Elliott@dhw.idaho.gov; DOH-OSC2 (DOH); Joseph.M.Lacanlale@uscg.mil; Norris, Jason (DOH); Nicole.Klein@k12.wa.us; Terbush, Brian R (MIL); DOH-DOCL (DOH); Marissa.cummings@nwahrn.org; OpsSC.HECC@nwahrn.org; hcc@srhd.org; Siri Kushner; Hayes, Laura (ECY)
Subject: IAP and Situation Report for Day 32 (COVID-19)
Attachments: IAP#32.pdf, SitRep 31_COVID-19_02202020.pdf

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Good Morning- Attached is IAP and Situation Report for Day 32 (COVID-19).

Danielle Dooley

Deputy Liaison Officer (2/20 to 2/26) – Incident Management Team (IMT)
Washington State Department of Health (WSDOH)

(564)999-1183(m) | <https://www.doh.wa.gov/Emergencies/Coronavirus>

Viruses don't discriminate and neither will we.



COVID-19

SITUATION REPORT # 31

WA DOH Incident Management Team

OFFICIAL USE ONLY

Date:	Time:	Contacts:																													
Thursday, February 20, 2020	1600	Email: doh-pio@doh.wa.gov Phone: 253-512-7100																													
IMPACTED AREAS County/Regions:	Snohomish County, WA																														
CURRENT SITUATION (new information highlighted)	Please contact the Poison Control Call Center at 1-800-525-0127 for further information related to this outbreak. Please contact the DOH Duty Officer at 360-888-0838 or hanalert@doh.wa.gov for question regarding incident management or emergency preparedness and/or response. Washington Confirmed Cases <table border="1"> <tr> <th colspan="3">COVID-19 Washington confirmed cases by county in 2020</th> </tr> <tr> <th>County</th> <th>Cases to date</th> <th>Last Changed</th> </tr> <tr> <td>Snohomish</td> <td>1</td> <td>1/21/2020</td> </tr> <tr> <td>Total</td> <td>1</td> <td>1/21/2020</td> </tr> </table> Persons Under Investigation—Updated 2/20/2020 <table border="1"> <tr> <td>Total Persons Under Investigation in Washington*: 1</td> </tr> <tr> <td>*Includes non-Washington State residents</td> </tr> </table> COVID-19 Washington Test Results-Updated 2/20/2020 <table border="1"> <tr> <td>Positive (confirmed)</td> <td>1</td> </tr> <tr> <td>Negative</td> <td>24</td> </tr> <tr> <td>PUIs Pending Results</td> <td>1</td> </tr> <tr> <td>Total Tested</td> <td>26</td> </tr> </table> Washington Close Contacts Being Monitored-Updated 2/20/2020 <table border="1"> <tr> <th>Counties</th> <th>Close Contacts</th> </tr> <tr> <td>N/A</td> <td>0</td> </tr> <tr> <td>Total</td> <td>0</td> </tr> </table> Total Persons under public health monitoring – Updated 2/20/2020 <table border="1"> <tr> <td>Total: 794</td> </tr> </table>		COVID-19 Washington confirmed cases by county in 2020			County	Cases to date	Last Changed	Snohomish	1	1/21/2020	Total	1	1/21/2020	Total Persons Under Investigation in Washington*: 1	*Includes non-Washington State residents	Positive (confirmed)	1	Negative	24	PUIs Pending Results	1	Total Tested	26	Counties	Close Contacts	N/A	0	Total	0	Total: 794
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Prepared by: Adam Rovang, SITL	Approved by: Chrystin McLelland, PSC	Last updated: 2/20/2020
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Executive Summary	As of the release of this SitRep, only one case of novel coronavirus (COVID-19) has been confirmed, and that individual has recovered. IMT Epidemiologists continue to monitor potential contacts and reach out to travelers. Operations staff are focused on building communications to promote community engagement, and establishing safe and scalable isolation capabilities.
Current Operations	Currently the DOH IMT Operations section is engaged in the following activities: Overall Operations <u>Background:</u> - All groups worked on adjusting operations based on evolving CDC guidance and situational awareness around quarantine planning and operations. - Delivered a package of 13 non-pharmaceutical interventions to Agency Executive Team. Pending review and approval from agency executives. <u>Updates:</u> - Support and coordination with 4 patients being transferred to Spokane. Epidemiology Branch Operations <u>Background:</u> - Provided guidance documentation for cruise ships coming into port in Washington. Delivered traveler information packets to SeaTac Airport on COVID-19, social distancing, and symptom monitoring. - Packaged and sent letters to travelers identified through EpiX. - Continue to utilize TIMS. Washington State is the first to use this system. Responses to TIMS forwarded to JHLs for more information. <u>Updates:</u> - Waiting on 1 test result from CDC for remaining PUI. - Conducted weekly Communicable Disease Epidemiologist meeting, discussing TIMS communication flow. - Currently drafting Enhanced Surveillance Report Public Health Laboratory (PHL) Group <u>Background:</u> - Gained EUA for COVID-19 testing capabilities with approval from FDA and CDC. - LIMs lab data entry module is running and staff are being trained. - Onboarded 5 UW SEAL students on lab systems as testing support, allowing for surge capacity when needed. <u>Updates:</u> - Staffing 2 microbiologists for surge capacity testing at PHL.

Prepared by: Adam Rovang, SITL

Approved by: Chrystin McLelland, PSC

Last updated: 2/20/2020

Community Engagement Task Force

Background:

- Assessed need for enhanced community engagement and mitigation strategies based on leader's intent.
- Identified working components of task force; areas include public health policy; public health guidance; public health communication; diversity, equity, inclusion (DEI), and community relations. Described skill and knowledge sets for potential members.
- Provided guidance for pathologists, medical examiners, and coroners who may perform autopsies on patients with COVID-19 completed.
- Translating guidance documents, and updated guidance for LHJ and local healthcare providers on the [DOH external website](#).
- Sent out school guidance documents for schools and daycare centers.

Community Mitigation Branch

Background:

- Established basecamp website for LHJs, including infection prevention guidance, and additional guidance from DOH.
- Completed and distributed WATrac guidance for updating airborne infection isolation rooms.
- Developed home health kits for impacted public health partners.
- Developing a Home Assessment Team (HAT) for specimen collection and how best to implement this team.
- NIOSH and OSHA reviewing masks that are older than five years for emergency use.
- Worked on improving NPI and mitigation strategies based on updated leader's intent.
- Hosted webinars on infection prevention with Harborview for healthcare partners, and COVID-19 patient movement support plan.

Updates:

- Developing/augmenting guidance for PPE resource conservation.
- Continuing support and coordination with 4 patients being transferred to Spokane.
- Secured staffing to develop strategic guidance for public health preparedness.

Isolation and Quarantine Group

Background:

- Finalized plan for quarantine site to receive and monitor individuals, plans for non-life-threatening transport of any potential COVID-19 patients to a specific DOH quarantine site, and tear-down and transition plans for quarantine site.
- Secured two additional RVs and staff for isolation site to deploy, if required.

Updates:

- Continue to conduct safety assessment for isolation site, including ensuring site is ADA compliance.
- Preparing for requirements of establishing a secondary isolation facility.

Prepared by: Adam Rovang, SITL

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	- Continue to conduct tabletop exercises for quarantine staff groups, and in preparation for additional quarantine needs. Public Information <u>Background:</u> - Posted mental health resources on website. - Conducting daily LHJ coordination call. - Drafted and approved social media messaging. - Continually responding to constituent, legislator, and media information requests. <u>Updates:</u> - Coordinated press release for the 4 patients transferred to Spokane. - Developed holding statements for Isolation and Quarantine. FEMA Region 10 - <u>Washington</u>: Activation level 1. One COVID-19 case. One PUI. - <u>Oregon</u>: Activation level 2. No cases. - <u>Idaho</u>: Activation level 3. No cases or PUI. - <u>Alaska</u>: Activation level 3. No cases or PUI.
Literature Situation Report	This is not official guidance from the CDC and is based on a Department of Health literature review. Reports can be found here: https://www.doh.wa.gov/Emergencies/Coronavirus/Resources <u>Background:</u> - Assuming perfect detection in travelers (due to increased screening procedures), the authors estimate that cases in Wuhan may be under-detected by seven fold. - Using data on Japanese travelers evacuated from Wuhan, researchers conclude that as many as half of all COVID-19 cases may be asymptomatic. - A recent paper using a pooled estimate found an estimated R_0 of 3.1, with likely values ranging from 2.1-5.7. - COVID-2019 case fatality rates (CFR) have a broad range, depending on demographics and severity. A calculated CFR for hospitalized patients ranges from 0.7% for mild cases to 9.5% for patients with two of three risks mentioned. - Incubation period estimates the majority of persons developing symptoms within 5 - 11 days. A small number (<1%) extend beyond 14 days. - Home isolation of sick persons may be the most effective way to limit transmission, based on findings from pandemic influenza. - A new study suggests that oral swabs may not be as effective at identifying COVID-19 at later stages of disease progression. - Shortage of essential personal protective equipment and other medical supplies in China is limiting epidemic prevention and control of COVID-19.

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	Updates: - Two studies highlight potential effectiveness of Chloroquine phosphate as a viable treatment option for COVID-19-associated pneumonia. - More research is needed to assess the possibility of fecal-oral transmission.
Key Messages from Public Information Officer	• The Department of Health is coordinating with local, state, tribal and federal partners on efforts to protect public health and prevent the spread of COVID-19. • While this situation poses a serious public health threat, the immediate health risk to the general public remains low in Washington. • There are steps people can take to reduce their risk of getting any viral respiratory infection. These include: ○ Wash your hands frequently. ○ Avoid touching your mouth and eyes. ○ Cover your coughs and sneezes. ○ Stay away from people who are sick. ○ Stay home when you are sick. • For the latest information please visit: www.doh.wa.gov/coronavirus • If people are concerned or want to learn more about COVID-19, we have a call center open. Call 1-800-525-0127 and press #. • Media inquiries should be directed to doh-pio@doh.wa.gov or 253-512-7100.

Washington State COVID-19 news: 2/20/2020

DOH mentioned/ Employee quotes

[Providence Sacred Heart will treat 5 coronavirus patients](#) (Jessica Baggett quoted; Spokesman-Review, Wenatchee World)

[Shoreline in, facility near North Bend out as potential coronavirus quarantine site](#) (Jessica Baggett quoted; Seattle Times, Walla Walla Union-Bulletin)

[Family of Orcas Island man says he was unfairly quarantined for coronavirus testing, targeted for his race](#) (Wayne Turnberg quoted, Seattle Times)

[Five coronavirus patients to be transferred to Spokane's Sacred Heart Medical Center](#) (DOH mentioned; KING 5, KREM, KIRO 7)

[779 people in Washington under public health supervision due to coronavirus](#) (DOH mentioned; KING 5, KREM)

[Joint Statement: Five Patients Testing Positive for Novel Coronavirus to be Transferred to Sacred Heart](#) (Joint statement, Spokane Regional Health District, Providence Health Care, DOH)

WA State

[Government health officials stem panic over coronavirus](#) (MM&M)

[North Bend fire training academy removed from list of potential quarantine sites](#) (KOMO)

[Olympia woman quarantined on cruise ship in Japan tests positive for coronavirus](#) (KING5, Q13, KIRO7)

[Seattle scientists, partners closing in on coronavirus vaccine](#) (Seattle PI, KOMO)

[Coronavirus forum brings experts together at UW](#) (Q13)

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[China big part of nLIGHT's focus \(Columbian\)](#)

National

[Coronavirus Is Contagious, But Kids Seem Less Vulnerable So Far \(KUOW, NPR\)](#)

[Coronavirus Update: 346 Americans Emerge From Quarantine At California Military Bases \(NPR\)](#)

[Will wearing a mask protect you from coronavirus? \(KREM\)](#)

[VERIFY: Is COVID-19 more deadly than the flu? \(KREM\)](#)

[Arizona coronavirus patient remains in stable condition \(AP\)](#)

[Amid Coronavirus, U.S. Cities Stretch to Monitor Self-Quarantined Americans \(Wall Street Journal\)](#)

Global

[Coronavirus death toll hits 2,100 in mainland China \(KING 5\)](#)

[Coronavirus live updates: CDC issues travel advisories for Japan, Hong Kong \(KIRO 7\)](#)

[To Prevent Next Coronavirus, Stop the Wildlife Trade, Conservationists Say \(New York Times\)](#)

[Two Japan cruise ship passengers die from coronavirus \(CNN, NPR, AP\)](#)

[Novel coronavirus appears to be stabilizing in China amid fears of new outbreak in Japan \(Q13\)](#)

[New threats emerge in outbreak while China voices optimism \(KEPR TV, KIMA TV, KOMO, AP\)](#)

[Why Did the Coronavirus Outbreak Start in China? \(opinion; New York Times\)](#)

[Japanese data on cruise ship coronavirus infections backs quarantine strategy \(Reuters\)](#)

[WHO says in touch with South Korea on 'cluster of COVID-19 cases' \(Reuters\)](#)

[China backs Pakistan decision not to evacuate students from coronavirus lockdown \(Reuters\)](#)

[More coronavirus cases in Iran's Qom; religious gatherings under threat \(Reuters\)](#)

[WHO says no time for complacency as China coronavirus cases fall \(Reuters\)](#)

[Coronavirus Live Updates: Studying Clusters in Japan for Clues on Virus's Spread \(New York Times, KING 5\)](#)

Economic Impacts/ Viewpoints

[Ah, Shuck: Oysters, Cherries, Other Northwest Products Back Up As Coronavirus Quarantines Trade \(KNKX\)](#)

[Hong Kong volunteers make homemade masks to combat virus \(AP\)](#)

[Wall Street drops more than 1% as coronavirus fears grow \(Reuters\)](#)

[Airlines suspend China flights due to coronavirus outbreak \(Reuters\)](#)

[Scientists 'strongly condemn' rumors and conspiracy theories about origin of coronavirus outbreak \(Science Mag\)](#)

[How does the new coronavirus spread? These new studies offer clues. \(VOX\)](#)

[China lab says conspiracy theories hurting efforts to curb virus \(Reuters\)](#)

[Can the coronavirus spread through cash exchanges or live on credit cards? \(USA Today\)](#)

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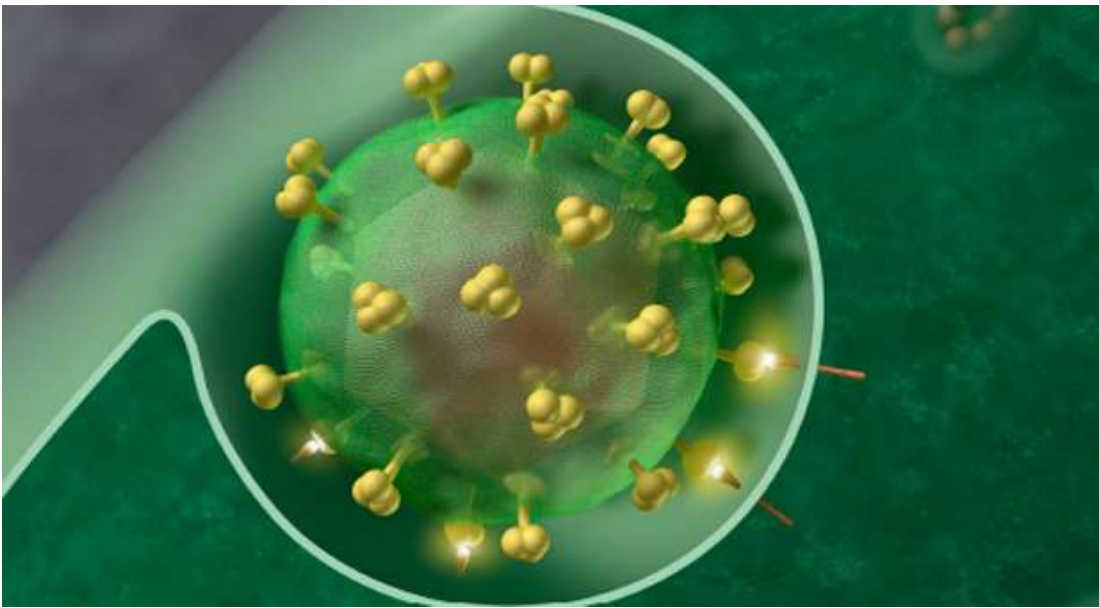
Last updated: 2/20/2020



Incident Management Team (IMT)

20-0265 2020 Novel CoV

Mission #: 20-0265



Incident Action Plan (IAP) # 32

Operational Period

From: 0800 2/21/20 To: 0800 2/22/20

MEDIA PHONE LINE: 253-512-7100



ICS Form 202

Incident Objectives

1. Incident Name: 20-0265 2020 Novel CoV	2. Operational Period:	Date From: 2/21/20 Time From: 0800	Date To: 2/22/20 Time To: 0800
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3. Objective(s) in priority order:

1. Provide for the health and wellness of all incident responders including safe work and living environments.
2. Contain and monitor the spread of COVID-19 through effective application of established public health measures including surveillance, testing, monitoring, case and contact investigation, quarantine, and isolation.
3. Provide comprehensive wraparound services for people in isolation and/or quarantine at the state level to include: providing safe, secure, and comfortable housing, medical and non-medical transportation, feeding, and other needed human services for people at risk for developing COVID-19.
4. Provide timely, complete, and accurate information to the people of Washington regarding the status of the COVID-19 situation in Washington State and the response actions being taken to address this situation.
5. Take specific actions in all areas of this response to promote health equity, including efforts to actively combat stigma and discrimination.
6. Maintain coordination and common operating picture among all responders, involved offices, DOH divisions, affected LHJs, both healthcare coalitions, partner associations, and others. Information sharing should include epidemiologic, healthcare stress indicators, and supply chain information.
7. Mitigate the risk of community-wide disease spread through the Community Engagement Task Force by implementing comprehensive strategies to engage with the public at large and major sectors including employers, schools, elected officials and others, using established public health education strategies, informed by CDC community mitigation guidance and epidemiologic data.
8. Coordinate with state agencies through the State Military Department Emergency Management Division to protect the people of Washington from COVID-19 through the use of appropriate state agency authorities and resources available to state agencies.
9. In partnership with healthcare coalitions and associations, support and coordinate the statewide healthcare system in maximizing the readiness of the healthcare system readiness to both reduce the demand for healthcare services and increase the capacity of the healthcare system to address surge needs for COVID-19. Provide guidance to the healthcare system regarding infection control, PPE conservation strategies, and other matters affecting the provision of healthcare services.
10. Convene policy groups as needed to make recommendations to the Governor and the Secretary of Health regarding community

4. Operational Period Command Emphasis:

The Washington State Department of Health must fulfill our responsibility to prevent disease spread, promote health, and protect the public's health. Additionally, our state's healthcare system operates at full capacity on a daily basis. Since our state is still experiencing health care surge with respect to the current influenza season this system is under considerable stress. COVID-19 presents an additional burden as well as an additional demand on the supply chain. Overall, the burden on the health care system impedes their ability to care for critically injured and ill patients on a daily basis. This response must support their ability to care for people in our communities when they need that care, which involves both mitigating spread of COVID-19 and building healthcare capacity.

If you encounter media on the grounds, please remember to:

- Be polite and professional. Don't engage unnecessarily.
- You are not authorized to speak to the media regarding this matter, unless approved by the Incident Commander. Please indicate that you are not authorized to speak regarding this matter and that you will notify the PIO.
- Contact the Public Information Officer at 253-512-7100 immediately to inform them that media is onsite. A Public Information Officer will arrive to escort media and respond to their needs appropriately.

5. Site Safety Plan Required? ☒ Yes ☐ No

Approved Site Safety Plan(s) Located At: DOH Business Operations Support Services

6. Incident Action Plan (the items checked below are included in this Incident Action Plan)

- | | | | |
|--|--|---|--------------------------------|
| ☒ ICS 202 | ☒ ICS 206 | ☒ ICS 230 | Other Attachments |
| ☒ ICS 203 | ☐ ICS 207 | | ☐ _____ |
| ☒ ICS 204 | ☒ ICS 208 | | ☐ _____ |
| ☐ ICS 205 | ☐ Map/Chart | | ☐ _____ |
| ☒ ICS 205a | ☒ Weather Forecast | | ☐ _____ |

7. Prepared By: Chrystin McLelland, PSC **Signature:** /s/ Chrystin McLelland

8. Approved by Incident Commander: Kevin Wickersham **Signature:** /s/ Kevin Wickersham

ICS Form 202 **Date:** 2/20/2020 **Time:** 1700



ICS Form 203

Organizational Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From: 2/21/20	Date To: 2/22/20
				Time From: 0800	Time To: 0800
3. Incident Commander and Command Staff:			7. Operations Section:		
IC: Kevin Wickersham			Chief: Tim McClung 360-480-8688		
Dep IC: Jennifer McNamara			Deputy: Cynthia Harry 206-472-4530		
Safety Officer: Tonya Pleines			Ops Planning: Scott Koehler 360-989-7586		
Asst. Safety Officer: Laura Hayes			Group: Investigation		
Public Info Officer: Lisa Stromme - 253-512-7100			Branch Dir: Mike Boysun 206-418-5500		
APIO: Jessica Daggett/Linda Waring/Danielle Keenig			Group: Surveillance		
Web: Theresa Lohr-R			Branch Dir: Mike Boysun 206-418-5500		
PIO/LNO Support: John Hlavaty			Div/Group: Elyse Bevers 206-418-5500		
LOFR: Maria Courogen			Group: Data Management		
Deputy LOFR: Danielle Dooley			Branch Dir: Mike Boysun 206-418-5518		
4. Agency Representatives:			Div/Group: Kim Piefer 206-418-5500		
Agency/Org	Name	Group: Isolation & Quarantine			
DOH/AA:	Jerrold Davis	Div/Group: Tim Hull 360-640-4143			
PHSKC:	Resham Patel	TF Lead: Kyle Lacefield 206-794-8475			
SHD:	Snohomish Liaison-R	NIGHT SHIFT			
Tribal Liaison:	Lou Schmitz-R	Div/Group: Tim Hull 360-640-4143			
ESF 8:	Arly Hyatt -CM	Group: Public Health Lab			
SEOC:	Brian Terbush	Group Sup: Denny Russell 206-750-9233			
NWHRN:	Marissa Cummings	Group: Community Engagement Task Force			
5. Planning Section:			Leader: Lauren Jenks (360) 259-0374		
Chief: Chrystin McLelland			Group: NPI & Mitigation		
Deputy: Mark Thomas			Group Sup: Rebecca Baron 360-489-4494		
Resource Unit: Scott Carlson/Brittany Knight			Group: Healthcare Readiness		
Status/Chckin Rec: Mary Roberts/Meisha Keech			Group Sup: Anne Newcombe 360.791.7793		
Status/Chckin Rec: Amina Ahmed			Group: Public Health Preparedness		
Status/Chckin Rec: Gil Villa			Group Sup: Ron Weaver		
Situation Unit : Adam Rovang			8. Finance/Administration Section:		
MEDIA PHONE: Mark Toy			Chief: Ethan Fiess/Dan Weeks		
Documentation: David Sullens			Deputy Chief: Nancy Wallace/Jay Summers		
5. Logistics Section:			Time Unit Lead: Janette Layne - R		
Chief: Carrie Corder			HR Unit: Traci Orr		
Deputy: Mike Bates			9. Facilities:		
Supply Unit: Lindsay Gorgen			IT Support: Bill Frauen		
9. Prepared by: Chrystin McLelland, PSC			Signature: /s/ Chrystin McLelland		
ICS Form 203 Location Key: Remote=R			Date: 2/20/2020 Time: 1700		



ICS Form 208

Safety Message/Plan

1. Incident Name: 20-0265 2020 Novel CoV	2. Operational Period: Date From: 2/21/20 Time From: 0800	Date To: 2/22/20 Time To: 0800
3. Safety Message, Expanded Safety Message, Safety Plan, Site Safety Plan: Daily Safety Message: • Safety continues to work with Operations and the Quarantine Group Supervisor to ensure Safety Protocols are in place and adhered to for safe operation of the Quarantine area • Safety will be working with Operations on a stand up of resources at Maple Lane School for Isolation. This is NOT occupation of the site, only set up for potential future occupation of area • Any hotel accommodation concerns or issues (potential or actual) please immediately report to Safety or HR to be addressed. If you feel more comfortable speaking with your IMT supervisor to relay the message to Safety or HR, that is acceptable as well. Staff safety is of the utmost importance. • +++IF YOU ARE NOT APPROVED TO ACCESS THE QUARANTINE AREA, PLEASE DO NOT. THIS IS A RESTRICTED IMT AREA+++ Potential Threat Concern: We were made aware that the First Amendment Audit may come to the Public Health Lab. We don't have a specific timeframe for a possible visit. I want to remind staff: • You do not have to engage with anyone, even if asked questions. You don't have to give them your name. • You can ignore them and go about your business. • You can close your blinds. • You may remove or turn your badge around as you leave the building. • Be careful about tail-gating, if you don't know someone ask to see their badge before allowing entry to secure locations. • It is not your role to ask them to leave or give them direction. We have notified leaders, Shoreline PD and WSP. If you have any immediate questions please talk with your Group Supervisor, Section Chief, Safety Officer or HR. Weather: • Temp: High of 53 low of 38 • Temps will be low tomorrow please dress accordingly. • 20% chance of rain • Enjoy the sun today, get out and walk around • Dress in layers • Wear appropriate footwear Building: • Make sure you sign in at the reception desk if you do not normally work at this location • Make sure you sign in at the ICP desk using the ICS 211 form • If you misplace/forget or lose your DOH access badge, please notify the Public Health Laboratory as soon as possible so they can deactivate the ID badge • No IMT should go past the second set of double doors. If you need something in that area, please reach out to the Safety Officer or front desk security • Make sure you sign out at the both location when you have finished for the day • If you have finished your deployment, make sure you check-out with the Demobilization unit so we can make sure you get home safe (work/rest ratio) Wellbeing: • Take advantage of the Stress Breaks. Sign up is located by the Safety Office / HR area in the front of the room on the wall		
4. Site Safety Plan Required? ☒ Yes ☐ No		
Approved Site Safety Plan(s) Located At: PHL Operations		
7. Prepared By: Chrystin McLelland, PSC	Signature: /s/ Chrystin McLelland	
ICS Form 208	Date: 2/20/2020	Time: 1700



ICS Form 204(a)

Special Instructions

1. Incident Name: 20-0265 2020 Novel CoV	2. Operational Period:	Date From: 2/21/20 Time From: 0800	Date To: 2/22/20 Time To: 0800
3. Common Safety Message, these items apply to all Operation Braches and Groups: Work Assignment Safety Message: 1. Safety is paramount. Follow all safety procedures and rules. See ICS form 208, Safety Message/Plan. 2. Maintain a healthy work-rest ratio. Be well rested prior to demobilization and driving home. 3. Maintain open and continuous communication in order to share information with the OSC and other Group Supervisors. 4. Make sure to send all important information to the OSC so it can be captured and included in the situational updates. 5. Communicate all resource needs to the Group Supervisor. 6. DOH Field staff who travel to the field to conduct specimen collection (not including transport of Category B Shipping Box specimens), will be treated as a contact and will follow the same monitoring and reporting process established for Healthcare Workers. These individuals will monitor for the entire 14 day monitoring period starting at last known contact with the PUI. 7. If you are working a location that's different from usual know your evacuation routes and rally points. If you encounter media on the grounds, please remember to: • Be polite and professional. Don't engage unnecessarily. • You are not authorized to speak to the media regarding this matter, unless approved by the Incident Commander. Please indicate that you are not authorized to speak regarding this matter and that you will notify the PIO. • Contact the Public Information Officer at 253-512-7100 immediately to inform them that media is onsite. A Public Information Officer will arrive to escort media and respond to their needs appropriately. Reminder if you encounter citizen groups or protestors: • You do not have to engage with anyone, even if asked questions. You don't have to give them your name. • You can ignore them and go about your business. • You can close your blinds. • You may remove or turn your badge around as you leave the building. • Be careful about tail-gating, if you don't know someone ask to see their badge before allowing entry to secure locations. • It is not your role to ask them to leave or give them direction. We have notified leaders, Shoreline PD and WSP.			
4. Site Safety Plan Required? ☒ Yes ☐ No			
Approved Site Safety Plan(s) Located At:		PHL Operations	
7. Prepared By: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland	
ICS Form 204a		Date: HERE:\Emergency_Inci Time: 1700	

ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:			Contact Info:
	Epidemiology	Section Chief:	Tim McClung	360-480-8688	
Group:	Investigation	Branch Director:	Mike Boysun	206-418-5518	
Unit:		Group Supervisor:			
Staging Area:					
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
Clinical Epidemiologist	Marisa D'Angeli	1	206-418-5500		
Duty Epidemiologist	Nicole Schwalbe	2	206-418-5500	Samantha Rice	
Administrative support	Terri Veazey	2	206-418-5500		
6. Work Assignments:					
This team will work to initiate continued contact monitoring, support disease surveillance system enhancements, finalize guidance recommendations for local health jurisdictions response to potential n-CoV, provide technical support of case or contact investigation for local staff, provide guidance and review of for public messaging. 1. Establish processes for tracking specimens across varying partners 2. Provide epidemiological investigation support to Local Health Jurisdictions. 3. Support guidance collection and coordination of partner meetings. 4. Provide phone triage, call log tracking, and general admin support. Support funding request from federal funders. 5. Develop and support disease notification surveillance application					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland			
ICS Form 204		Date: 2/20/2020		Time: 1700	



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:		Contact Info:	
Branch:	Epidemiology	Section Chief:	Tim McClung	360-480-8688	
Group:	Surveillance	Branch Director:	Mike Boysun	206-418-5500	
Unit:		Group Supervisor:	Elyse Bevers	206-418-5500	
Staging Area:					
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
Report Epi	Maham Choudry	1	360-236-3558	Remote	
Epi Surveillance	Zach Smithingell	1	360-236-4306	Remote	
Decipher Epi	Maya Bhat	1	206-418-5500	Remote	
RHINO	Natasha Close	1	206-430-0617	Remote	
Subject Matter Epi	Marcia Goldoft	1	206-418-5500		
6. Work Assignments:					
1. Develop Enhanced Surveillance Report for integration of cross-public health data 2. Review CDC guidance and local panflu planning reports to assure alignment with enhanced surveillance report 3. Develop data dashboard for incident response needs					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland			
ICS Form 204		Date: 2/20/2020		Time: 1700	



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:		Contact Info:	
Branch:	Epidemiology	Section Chief:	Tim McClung	360-480-8688	
Group:	Data Management	Branch Director:	Mike Boysun	206-418-5518	
Unit:		Group Supervisor:	Kim Piefer	206-418-5500	
Staging Area:					
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
Contact and Traveler Epi	Samantha Rolland	1	206-418-5500		
WDRS Development	Jenni Risler	1	360.236.3123		
WDRS Support	Lindsay Horn	1	206-418-5500		
WDRS BA Support	Janet Dunn	1	360-236-4456		
6. Work Assignments:					
1. Support contact tracing and enhanced cases management in WDRS 2. Management task assignment and information sharing with LHJs 3. Sustain and enhance surveillance tools for management of case, contacts, and travelers					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland			
ICS Form 204		Date: 2/20/2020		Time: 1700	



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:		Contact Info:	
Branch:		Section Chief:		Tim McClung	
Group: Public Health Lab		Branch Director:			
Unit:		Group Supervisor:		Denny Russell	
Staging Area:				206-750-9233	
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
PHL Lead	Denny Russell	1	206-750-9233		
Emergency Response Lead	Jessica Gant	6	206-418-5575	Emily Nebergail Marisa Egorov Wesley LaRowe Hannah Groeneveld JohnAric Peterson	
LIMS Support		1		Standby	
HTS Support	Remi Olsen	1	206-418-5483	Standby	
6. Work Assignments:					
The Public Health lab group is responsible for ensuring that clinical specimens related to the COVID-19 event are properly packaged and submitted to the CDC for testing, and that the Washington State Public Health Lab (WAPHL) develops capability for conducting laboratory analysis as appropriate. The Public Health Lab Group will: 1. Plan for COVID-19 test at the WAPHL. This includes incorporating the Emergency Use Authorization (EUA) for COVID-19 testing into the Public Health Lab flows. 2. Support Epidemiology investigations by ensuring timely specimen shipping to CDC. 3. Develop an Epi/Lab dashboard for specimen tracking at WAPHL. 4. Identify the need for training on how to package and submit laboratory specimens. 5. Central Accessioning support staff will work to assist with data entry and shipping. 6. Support messaging around Emergency Use Authorization					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC			Signature: /s/ Chrystin McLelland		
ICS Form 204			Date: 2/20/2020		Time: 1700



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:		Contact Info:	
Branch:		Section Chief: Tim McClung		360-480-8688	
Group:	Community Engag. Task Force	Branch Director:			
Unit:		Group Supervisor: Lauren Jenks		360-951-6675	
Staging Area:					
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
Public Health Policy	Kelly Cooper	4		Ryan Black, Carl Yanagida, Mike Ellsworth	
Community Outreach, Equity, and Stigma Reduction	Katie Meehan	6		Christymarie Jackson, Tomas Madrigal, Megan Mikkelsen, Lydia Guy Ortiz, Tamara Fulwyler	
Public Health Guidance	Joni Hensley	5		Wayne Turnberg, Scott Lindquist, Cynthia Harry, Sara Podczervinski	
Public Health Communications	Tara Bostock	10		Barry Iverson, Morgan Jade, Vadim Kogan, Jesse Payne, Robert Hunter, Greg Nordland, Kristin Haley, Franji Mayes	
6. Work Assignments: On Following Page					
6. Work Assignments: Continued					
•Ask Deputies to review list of qualifications and potential staff and recommend staff who can be good liaisons for each identified audience. •Complete an Outreach Plan, including a communications plan for each audience identified: - oLegislative plan is completed and approved - oEmployer/Business outreach plan drafted, awaiting approval •Create Stigma Reduction Social Marketing Plan •Implement legislative outreach plan (launch Wednesday 2/19) •Connect with LOFR to support Feb 25th webinar with K12 school administrators, school nurses, school PIOs, and school based clinics. Complete follow up tasks—requests for other resources for schools such as template letter for parents, posters or flyers, etc. •Connect with the IMT Healthcare group to align goals. Plan for connecting with providers, Medicaid providers, ACHs, Commissions, etc. •Create plans for how to reach the Chinese/API community most effectively—e.g., in response to concerns emailed from the Commission on Asian Pacific American Affairs (CAPAA). •Internal Communications Plan to keep DOH staff informed on coronavirus and key messages.					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC					
			Signature: /s/ Chrystin McLelland		
ICS Form 204			Date: 2/20/2020		Time: 1700



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:			Contact Info:
Branch:		Section Chief: Tim McClung			
Group:	Quarantine Group	Branch Director: Landon Adams			509-540-9455
Safety Primary	Tonya Pleines	Group Supervisor: Doug Lawrence			360-742-8719
Safety Secondary	Laura Hayes	TF Leader: Kyle Lacefield			206-777-5884
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
Team Support	TBD	5	360-903-0301	Chelsea Foust, +2 Fit Tested DOC CISM: Paul McDermott, Cori McGrady, +4 Fit NIGHT SHIFT: Curtis MacQuarrie, Alicia Cikaucus	
Transport LEO	James Yadon*	2	425-210-4625	Transport Officer: Sean McGrady	
Site Security	Lt. Zack Elmore	3	360-507-6651	Trooper Maloney, 360-254-4637 (22:00 – 06:00) Trooper Newton, 427-971-8718 (06:00 – 14:00)	
6. Work Assignments:					
1. QTF Team continues to maintain operations of the quarantine site 2. QTF Team is working on a 4 hour response plan for the isolation site 3. QTF is working on an addition to the site plan to include a family scenario 4. QTF is running every new staff member through walk throughs of the plan as they arrive 5. QTF Leader will update the dashboard daily Special instructions: No personell allowed entry without IC approval, except the Quarantine Group listed in 204, IC, and SOFR. Additional Approvals: Marc Thomas (Facility), Laura Hayes (SOFR), Tonya Pleines (SOFR), Doug Lawrence (Facility 360-742-8719), Note: * Respirator Approved (N95)					
7. Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland			
ICS Form 204		Date: 2/20/2020		Time: 1700	



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:			Contact Info:
Branch:		Section Chief: Tim McClung			
Group:	Isolation Group	Branch Director: Landon Adams			509-540-9455
Safety Primary:	Tonya Pleines	Group Supervisor: Landon Adams			509-540-9455
Safety Alternate:	Laura Hayes	TF Leader:			
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers		Notes and Reporting Instructions
Deputy Safety Officer	Tonya Pleines	1	360-640-4185		Safety during site set up
Facility Unit	Marc Thomas	1	360-480-3819		Site Set up
Support		1			
PIO	Cory Portner	1	253-512-7000		Any media contact
6. Work Assignments:					
Complete final tasks at Maple Lane for Isolation site. Develop an acces plan for immediate acces to the Isolation site including access to the gate keys					
7. Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland			
ICS Form 204		Date: 2/20/2020		Time: 1700	



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:			Contact Info:
Branch:	Community Mitigation	Section Chief:	Tim McClung	360-480-8688	
Group:	NPI & Mitigation	Branch Director:	Erika Henry	206-341-7796	
Unit:		Dep. Branch Director:			
Staging Area:		Group Supervisor:	Rebecca Baron	360-489-4494	
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
NPI - MCM Lead	Rebecca Baron	2	360-489-4494	Danielle Koenig, 360-280-4192	
6. Work Assignments:					
1. Impliment changes into the non-pharaceutical intervention (NPI) guidance documents 2. Review all NPI Guidance documents for clarity and consistancy and edit language and plain talk 3. Collect facility information for the state agencies assess their capability to be used as a potential isolation and/or quarantine facility 4. Provide guidance to Healthcare systems rediness group on PPE issues					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC			Signature: /s/ Chrystin McLelland		
ICS Form 204			Date: 2/20/2020		Time: 1700



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:			Contact Info:
Branch:	Community Mitigation	Section Chief:			Tim McClung 360-480-8688
Group:	Healthcare System Rediness	Branch Director:			Erika Henry 206-341-7796
Unit:		Dep. Branch Director:			
Staging Area:		Group Supervisor:			Anne Newcombe 360.791.7793
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
Healthcare System Readiness Group	Anne Newcombe	1	360.791.7793		
6. Work Assignments:					
1. Present to SHO on 4 focus areas Prepare for 1:00 LHO call and be available for needed support					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC			Signature: /s/ Chrystin McLelland		
ICS Form 204			Date: 2/20/2020		Time: 1700



ICS Form 204

Assignment List

1. Incident Name: 20-0265 2020 Novel CoV		2. Operational Period:		Date From 2/21/20 Time From 0800	Date To: 2/22/20 Time To: 0800
3. Assignment Identifier:		4. Operations Personnel:		Contact Info:	
Branch:	Community Mitigation	Section Chief:	Tim McClung	360-480-8688	
Group:	Pub Health Preparedness	Branch Director:	Erika Henry	206-341-7796	
Unit:		Dep. Branch Director:			
Staging Area:		Group Supervisor:	Ron Weaver		
5. Resources Assigned:					
Resource Identifier	Leader	# of Persons	Contact Numbers	Notes and Reporting Instructions	
PHEP Group	TBD	1			
6. Work Assignments:					
The Group Supervisor: - develops and supports the operational priorities of the group - ensures staffing and resources are adequate to achieve the assigned work - ensures coordination across the groups and branches within the operations section and with appropriate external partners. The Public Health Planner: - understanding of current capabilities and gaps in alternate care facility/systems and fatality management planning - recommend mitigation and resource strategies to address known gaps in operationalizing ACF and fatality management response - work closely with the Healthcare Preparedness Group in this work.					
7. Special Instructions:					
8. Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland			
ICS Form 204		Date: 2/20/2020		Time: 1700	



ICS Form 205A

Communications List

1. Incident Name:	20-0265 2020 Novel CoV	2. Operational Period:	2/21/2020
		to:	2/22/2020
3. Basic Communications Information:			
Role	Name	Phone	Email
SITL	Adam Rovang		doh-sitl@doh.wa.gov
Healthcare Rediness	Anne Newcombe	360.791.7793	
ESF 8	Arly Hyatt	360-236-4057	seoc44@mil.wa.gov
IT Support	Bill Frauen	360-236-4460	
SEOC Rep.	Brian Terbush	253-380-3882	
Traveler Epi	Brianna Pergola	360-236-4207	Brianna.pergola@doh.wa.gov
SUPL	Carolyn Ham	(360) 789-5971	doh-lsc@doh.wa.gov
LSC	Carrie Corder	(360) 324-9619	doh-lsc@doh.wa.gov
Q Logs Support	Chelsea Foust	785-341-3721	Chelsea.foust@doh.wa.gov
Contact Tracing	Chris Ahmed	360-236-3125	Christopher.ahmed@doh.wa.gov
PSC	Chrystin McLelland	206-696-3324	doh-psc@doh.wa.gov
Deputy OSC	Cynthia Harry	206-472-4530	
Agency Dept RESL	Dan Alexanian	360-338-5445	Dan.Alexanian@doh.wa.gov
Deputy LOFR	Danielle Dooley	564-999-1183	doh-lofr@doh.wa.gov
APIO	Danielle Koenig	360-280-4192	doh-pio@doh.wa.gov
Documentation	David Sullens		doh-docl@doh.wa.gov
PHL Grp Sup	Denny Russell	206-750-9233	denny.russell@doh.wa.gov
Facilities	Doug Lawrence		
Surv. Group Lead	Elyse Bevers	206-418-5500	
Sentinel Lab	Emily Nebergall	206-418-5543	Emily.nebergall@doh.wa.gov
FSC	Ethan Fiess	360-791-8194	doh-fsc@doh.wa.gov
RESL	Gil Villa		doh-resl@doh.wa.gov
Social Media	Greg Nordlund	360-688-0677	greg.nordlund@doh.wa.gov
Sentinel Lab	Hannah Groeneveld	206-418-5481	Hannah.groeneveld@doh.wa.gov
CDC LNO	Holly Biggs	404-354-9668	xdc6@cdc.gov
Decipher Epi	Ian Painter	360-236-4252	ian.painter@doh.wa.gov
Transport LEO	James Yadon	360-210-4625	Jayadon@DOC1.WA.GOV
WDRS Support BA	Janet Dunn	360-236-4456	Janet.dunn@doh.wa.gov
Time Unit Lead	Janette Layne	(360) 236-4664	janett.layne@doh.wa.gov
EMS Planner	Jason Norris	360-236-2851	jason.norris@doh.wa.gov
WDRS Support	Jenni Risler	360-236-3123	jennifer.k.risler@doh.wa.gov
Deputy IC	Jennifer McNamara	(360) 790-0580	doh-ic2@doh.wa.gov
AA	Jerrod Davis	(360) 556-2132	Jerrod.Davis@DOH.WA.GOV
4. Prepared by:		Chrystin McLelland, PSC	
		2/20/2020	
ICS Form 205A		1700	



ICS Form 205A

Communications List

1. Incident Name:	20-0265 2020 Novel CoV	2. Operational Period:	2/21/2020 2/22/2020
3. Basic Communications Information:			
Role	Name	Phone	Email
APIO	Jessica Baggett	253-512-7100	doh-pio@doh.wa.gov
Sentinel Lab Sup	Jessica Gant	206-418-5575	Jessica.gant@doh.wa.gov
EPI Admin Support	Jessica Stapleton	360-304-9078	Jessica.stapleton@doh.wa.gov
PIO Support	John Hlavaty	360-810-0203	doh-pio@doh.wa.gov
Sentinel Lab	JohnAric Peterson	206-418-5481	Johnaric.peterson@doh.wa.gov
Medical Guidance	Joni Hensley	206-773-3328	joni.hensley@doh.wa.gov
HTS Support	Kenny Lin	206-418-5533	Kenny.lin@doh.wa.gov
IC	Kevin Wickersham	206-450-9827	doh-ic@doh.wa.gov
LOFR	Kim Butowicz	360-764-6333	doh-lofr@doh.wa.gov
Data Management	Kim Piefer	206-418-5500	
Quar. Ops	Kyle Lacefield	206-794-8475	Kyle.Lacefield@DOH.WA.GOV
Isolation	Landon Adams	509-540-9455	
SOFR	Laura Hayes	425-495-2632	doh.sofr@doh.wa.gov
Task Force	Lauren Jenks	(360) 259-0374	lauren.jenks@doh.wa.gov
APIO	Linda Waring	360-236-3127	doh-pio@doh.wa.gov
Supply Unit	Lindsay Gorgen	470-366-8647	doh-logs@doh.wa.gov
WDRS Support	Lindsay Horn	206-418-5500	
PIO	Lisa Stromme	253-512-7100	doh-pio@doh.wa.gov
Tribal Liaison	Lou Schmitz	206-949-3541	Lou.schmitz.aihc@outlook.com
I&Q - Site Security	Lt. Zack Elmore	360-507-6651	
Sentinel Lab	Madeline Dale	206-418-5562	Madeline.dale@doh.wa.gov
Report Epi - Serv.	Maham Choudry	360-236-3558	
Facility Unit Leader	Marc Thomas	360-480-3819	marc.thomas@doc.wa.gov
LOFR	Maria Courogen	360-507-4243	doh-lofr@doh.wa.gov
Clinical Epi	Marisa D'Angeli	206-418-5500	Marisa.DAngeli@doh.wa.gov
Sentinel Lab	Marisa Egorov	206-418-5481	Marisa.egorov@doh.wa.gov
NWHRN	Marissa Cummings	206-595-8722	
Deputy PSC	Mark Thomas	360-236-4015	doh-psc@doh.wa.gov
Demobilization	Mark Toy	360-350-2976	doh-dmob@doh.wa.gov
Food Unit	Mary Daniels	360-878-1653	doh-logs@doh.wa.gov
Status/Check-in	Mary Roberts	360-402-2260	doh-resl@doh.wa.gov
Decipher Epi	Maya Bhat	206-418-5500	
RESL	Meisha Keech		doh-resl@doh.wa.gov
SeaTac Liaison	Michelle Holshue	206-418-5418	Michele.holshue@doh.wa.gov
4. Prepared by:	Chrystin McLelland, PSC		2/21/2020
ICS Form 205A			1700



ICS Form 205A

Communications List

1. Incident Name:	20-0265 2020 Novel CoV	2. Operational Period:	2/21/2020
		to:	2/22/2020
3. Basic Communications Information:			
Role	Name	Phone	Email
Logistics Support BD	Mike Bates	509-540-0748	Michael.bates@doc.wa.gov
EPI Branch Dir	Mike Boysun	206-418-5518	mike.boysun@doh.wa.gov
SOFR	Mike Rainville	509-844-1452	doh-sofr@doh.wa.gov
DFSC	Nancy Wallace	(253) 426-2197	doh-fsc@doh.wa.gov
RHINO Support	Natasha Close	206-430-0617	Natasha.Close@doh.wa.gov
Duty Epi	Nicole Schwalbe	206-418-5500	nicole.c.schwalbe@doh.wa.gov
Epi - Public Health Nurse	Patty Montgomery	206-492-1763	Patricia.montgomery@doh.wa.gov
DOC CISM	Paul McDermott	425-466-7554	
NPI	Rebecca Baron	360-489-4494	
PHSKC	Resham Patel	206-263-8552	Resham.Patel@kingcounty.gov
Public Hlth Prep	Ron Weaver		
PHL Emerg Resp	Ryan Medeck	206-418-5576	Ryan.medeck@doh.wa.gov
Contact Tracing	Sam Roland	360-326-4216	
Traveler EPI	Samantha Rolland	206-418-5500	
OCS - Admin	Sandy Ng	360-236-3115	sandy.ng@doh.wa.gov
Resource Unit:	Scott Carleson	360-507-5112	doh-resl@doh.wa.gov
Ops Planning	Scott Kohler	360-989-7586	
AREP SHD	SHD LO		Lo@snohd.org
Web	Teresa Lohr	360-480-8086	doh-pio@doh.wa.gov
Admin Support	Terri Veazey	206-418-5500	Theresa.McCallion@doh.wa.gov
Ops Invest Admin	Theresa McCallion	360-701-7991	teresa.mccallion@doh.wa.gov
Q Task Force Sup	Tiffany Escott	360-903-0303	Tiffany.Escott@DOH.WA.GOV
I&Q Group Sup	Tim Hull	360-640-4143	tw Hull@DOC1.WA.GOV
OSC	Tim McClung	360-480-8688	doh-osc@doh.wa.gov
Asst. SOFR	Tonya Pleines	360-640-4185	doh-sofr@doh.wa.gov
HR Unit	Traci Orr	(360) 890-4645	doh-hr@doh.wa.gov
I&Q - Site Security	Trooper Maloney	360-254-4637	
I&Q - Site Security	Trooper Newton	427-971-8718	
Sentinel Lab	Wesley La Rowe	206-418-5562	Wesley.larowe@doh.wa.gov
WDRS Support-R	Xinyi Wang	206-226-8617	xinyi.wang@doh.wa.gov
Report epi	Zach Smithingell	360-236-4306	Zachary.smithingell@doh.wa.gov
Subject Matter EPI	Marcia Goldoft	206-418-5500	
HTS Support	Remi Olsen	206-418-5483	
4. Prepared by:	Chrystin McLelland, PSC		2/20/2020
ICS Form 205A			1700



ICS Form 206

Medical Plan/Shoreline

1. Incident Name:	20-0265 2020 Novel CoV	2. Operational Period:	Date From: 2/21/20 Time From: 0800	Date To: 2/22/20 Time To: 0800
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3. Medical Aid Stations:			
Name	Location	Contact Number(s)/Frequency	Paramedics on Site?
AED and First Aid Kits	Multiple stations along Main Hallways	206-418-5400 (Front Desk)	☐ Yes ☒ No
UW Neighborhood Shoreline Clinic - Primary Care and Urgent Care Services	1355 N 205th St., Shoreline, WA 98133	204-542-5656	☒ Yes ☐ No
Concentra Urgent Care	836 NE Northgate Way, Seattle, WA 98125	206-784-0737	☒ Yes ☐ No
Kaiser Permanente Northgate Medical Center	9800 4th Ave NE, Seattle, WA 98115	206-302-1200	☒ Yes ☐ No

4. Transportation (indicate air or ground):			
Ambulance Service	Location	Contact Number(s)/Frequency	Level of Service
Shoreline Fire Dept (Ground)	17525 Aurora Ave N, Shoreline WA 98133	206-533-6500	☒ ALS ☒ BLS
American Medical Response (Ground)	13075 Gateway Drive, Suite 100 Seattle, Washington 98168	206-444-4444	☐ ALS ☒ BLS

5. Hospitals:							
Hospital Name	Address, Latitude & Longitude if Helipad	Contact Number(s)/Frequency	Travel Time		Trauma Center	Burn Center	Helipad
			Air	Ground			
ER at UW Medical Center - Northwest	1550 N 115th St, Seattle, WA 98133	(206) 364-0500	N/A	3.5 mi 15 min	☒ No	☒ No ☐ Yes	☒ No ☐ Yes
Harborview Medical Center Emergency & Trauma Center	325 9th Ave, Seattle, WA 9810447 47.6040°N, 122.3241° W	(206) 744-3074	1 hr (Total flight and ground time)	11 mi 35 min	☒ Yes Level: 1	☒ Yes ☐ No	☒ Yes ☐ No

6. Special Medical Emergency Procedures:
A. Report the emergency by calling 9-911 B. Assist the injured person (s) and offer reassurance and comfort. C. If you have training in first aid, CPR, and/or AED you may offer medical assistance within the scope of your training. D. When the emergency involves blood or other bodily fluids, do not touch the fluids without proper PPE. E. Do not move individuals with suspected spinal injuries. F. Report the emergency to the EOC Supervisor and/or you supervisor.

7. Prepared By:	Chrystin McLelland, PSC	Signature:	/s/ Chrystin McLelland
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ICS Form 206	Date:	2/20/2020	Time:	1700
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ICS 230 Recurring Daily Meeting Schedule

Incident Name:	20-0265 2020 Novel CoV	2. Date:	2/21/2020	Recurring Daily Meeting Schedule ICS 230
Meeting schedule				
Time	Meeting name	Purpose	Attendees	Location
8:15 am (0815)	Daily Operations briefing <i>agenda 4-36 (red book)</i>	Orient to important aspects of daily operations and incident priorities.	C&G staff, RESL, SITL, DIVS, AA	room #S4 and GTM
11:30 am (1130)	Command & General Staff meeting	Form common operating picture among IMT	C&G staff	GTM -Room Q40
1:00 pm (1300)	Tactics meeting <i>agenda 4-20 (red book)</i>	Review and approve tactics for next operational period.	OSC, RESL, LSC, SOFR, FSC	GTM -Room Q40
2:30 pm (1430)	Planning Meeting <i>agenda 4-26 (red book)</i>	Review, validate, support the plan	C&G staff, RESL, SITL, DIVS	GTM -Room Q40
5:00 pm (1700)	Daily Wrap up <i>agenda for end of day briefing</i>	Success and challenges/gaps of the day	C&G staff, RESL, SITL, DIVS, AA	room #S4 and GTM
Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland		
ICS Form 230 Meeting Schedule		Date: 2/20/2020	Time: 1700	

ICS 230 Ops Meeting Schedule



Incident Name:	20-0265 2020 Novel CoV	2. Date:	2/21/2020	OPS Meeting Schedule ICS 230
Meeting schedule				
Time	Meeting name	Purpose	Attendees	Location
9:00 am (0900)	Operations Section Leadership	Support update	Operations Section Leadership	Dial in - See calendar invite
11:00 am (1100)	Deputies Call/COOP Planning Coordination	Support update	RESL, HR Unit	Dial in - See calendar invite
11:00 am (1100)	LHJ Comms Call	Information sharing	Communicators from: LHJs, IMT, Port of Seattle, WA EMD, ...	GTM -Room A22
2:45 pm (1445)	Operations to Operations call	Support update	Operations	Dial in - See calendar invite
3:45 pm (1545)	Finance Daily Update/Info Sharing	Finance Daily Update/Info Sharing	FSC	Dial in - See calendar invite
4:00 pm (1600)	Operations Group Touch Base/Brief	Support update	POPS	Dial in - See calendar invite
4:05 pm (1605)	Policy briefing	Discuss pertinent policy issues.	Policy decision makers: ALT, Exec Team, IC, AA	see calendar invite
Prepared by: Chrystin McLelland, PSC		Signature: /s/ Chrystin McLelland		
ICS Form 230 Meeting Schedule		Date: 2/20/2020	Time: 1700	

From: Hayes, Patty
Sent: Thursday, February 27, 2020 3:13 PM PST
To: Duchin, Jeff; Worsham, Dennis
Subject: FW: Syndromic Surveillance Data Sharing for COVID-19
Attachments: COVID19Sharing.png, FW Request to Share Data for Novel Coronavirus Response.msg.eml

fyi

From: Chrissie Juliano <juliano@bigcitieshealth.org>
Sent: Thursday, February 27, 2020 11:10 AM
To: Allison Arwady <allison.arwady@cityofchicago.org>; Barbara Ferrer <BFerrer@ph.lacounty.gov>; Bob McDonald <bob.mcdonald@denvergov.org>; Colfax, Grant (DPH) <grant.colfax@sfdph.org>; Dawn Emerick (SAMHD) <Dawn.Emerick@sanantonio.gov>; Denise Fair (faird@detroitmi.gov) <faird@detroitmi.gov>; Dzirasa, Letitia <Letitia.Dzirasa@baltimorecity.gov>; Fermin Leguen <leguen@SNHD.ORG>; Gibbie Harris <gibbie.harris@mecklenburgcountync.gov>; Gretchen Musicant (Gretchen.Musicant@minneapolismn.gov) <Gretchen.Musicant@minneapolismn.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Kelly Colopy (kelly.colopy@longbeach.gov) <kelly.colopy@longbeach.gov>; Kimi Watkins-Tartt <kimi.watkins-tartt@acgov.org>; LaQuandra Nesbitt <laquandra.nesbitt@dc.gov>; Marcy Flanagan (Marcy.Flanagan@maricopa.gov) <Marcy.Flanagan@maricopa.gov>; Merle R. Gordon <MGordon@City.Cleveland.Oh.Us>; Muntu Davis <mudavis@ph.lacounty.gov>; Mysheika Roberts <mwroberts@columbus.gov>; Oxiris Barbot <obarbot@health.nyc.gov>; Hayes, Patty <Patty.Hayes@kingcounty.gov>; Phil Huang <Philip.Huang@dallascounty.org>; Rachael Banks (rachael.m.banks@multco.us) <rachael.m.banks@multco.us>; Rex Archer <rex.archer@kcmo.org>; Rita Nieves <rnieves@bphc.org>; Sara Cody - Santa Clara County Public Health Department (sara.cody@phd.sccgov.org) <sara.cody@phd.sccgov.org>; Stephanie Hayden (Stephanie.Hayden@austintexas.gov) <Stephanie.Hayden@austintexas.gov>; Stephen Williams <stephen.williams@houston.tx.gov>; Thomas Farley <thomas.farley@phila.gov>; Tomás Aragón <tomas.aragon@sfdph.org>; Villalta, Yesenia D <Yesenia.Villalta@flhealth.gov>; Vinny Taneja - Tarrant County Health Department (vtaneja@tarrantcounty.com) <vtaneja@tarrantcounty.com>; Wilma Wooten <wilma.wooten@sdcounty.ca.gov>
Cc: Gabrielle Nichols <nichols@bigcitieshealth.org>
Subject: FW: Syndromic Surveillance Data Sharing for COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Jose mentioned this at our meeting on Tuesday. I will add it to the meeting notes but in the interest of getting it out, sending to y'all directly.

Chrissie Juliano, MPP

Executive Director

[Big Cities Health Coalition](#) | [@BigCitiesHealth](#)

Desk Phone: 301-664-2989

7501 Wisconsin Ave., Ste. 1310E

Bethesda, MD 20814

From: Lansang Tran, Rhea Lanee (CDC/DDPHSIS/CSTLTS/OD) <ngl1@cdc.gov>

Sent: Thursday, February 27, 2020 1:59 PM

To: Chrissie Juliano <juliano@bigcitieshealth.org>

Subject: Syndromic Surveillance Data Sharing for COVID-19

Hi Chrissie,

Please see the two attachments regarding syndromic data sharing for COVID-19. Please share with the Big Cities members as you see fit. It was encouraging to see so much interest and support; we hope they sign up at their earliest convenience.

Thank you!

Respectfully,

Rhea-Lanee Lansang Tran, MPH, CHES

Special Assistant to the CSTLTS Director

Office of the Director

Center for State, Tribal, Local, and Territorial Support

Centers for Disease Control and Prevention

Desk phone: (404) 498-1045

Work cell: (404) 310-4015

From: Yoon, Paula (CDC/DDPHSS/CSELS/DHIS) <pay3@cdc.gov>

Sent: Wednesday, February 26, 2020 12:38:31 PM

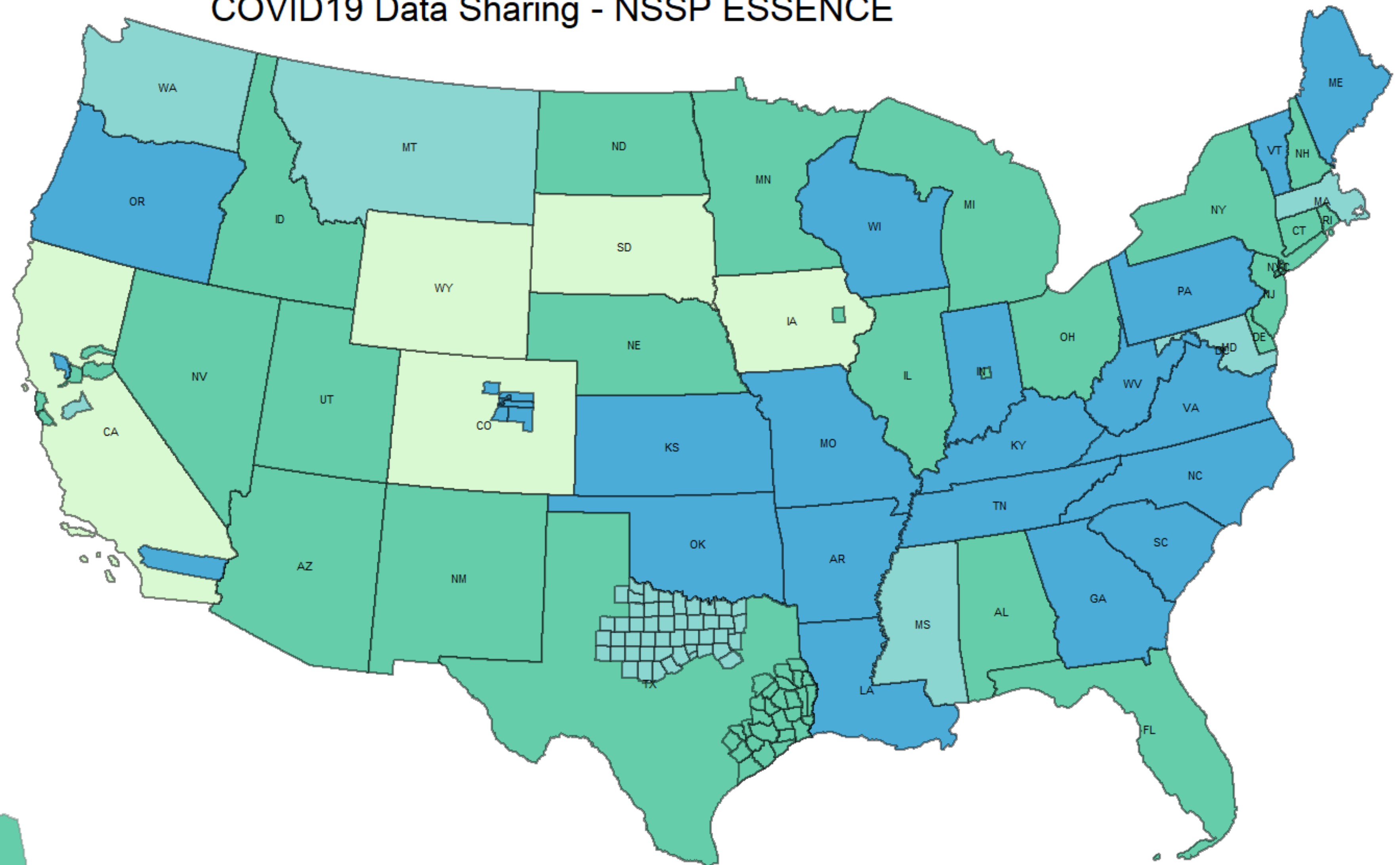
Jose,

Attached is the latest map and the email that went out to SyS colleagues in states about the data sharing collaboration. Feel free to share these materials as needed.

Thank you again for all of your help with this!

Paula

COVID19 Data Sharing - NSSP ESSENCE



Alaska

Hawaii

- Sharing
- Interested
- Not Sharing
- Not Submitting to NSSP-Biosense

From: Yoon, Paula (CDC/DDPHSS/CSELS/DHIS)
Sent: Wednesday, February 26, 2020 9:35 AM PST
To: Yoon, Paula (CDC/DDPHSS/CSELS/DHIS)
Subject: FW: Request to Share Data for Novel Coronavirus Response

From: nssp (CDC) <nssp@cdc.gov>
Sent: Thursday, February 13, 2020 8:58 AM
To: nssp (CDC) <nssp@cdc.gov>
Cc: Coletta, Michael A. (CDC/DDPHSS/CSELS/DHIS) <mac0@cdc.gov>; Davis, Alan (CDC/DDPHSS/CSELS/DHIS) <ald7@cdc.gov>; Rodgers, Loren E. (CDC/DDPHSS/CSELS/DHIS) <izi8@cdc.gov>; Worlund, Max (CDC/DDPHSS/CSELS/DHIS) (CTR) <zgy3@cdc.gov>; Kommareddy, Laxma (CDC/DDPHSS/CSELS/DHIS) (CTR) <vyz1@cdc.gov>
Subject: Request to Share Data for Novel Coronavirus Response

Dear Colleagues,

As you know, NSSP staff have been working closely with our community in order to develop queries and methods for using syndromic data to bolster surveillance for novel Coronavirus (COVID-19). We would like to request your assistance and cooperation by sharing data with selected CDC partners.

We established a new data sharing group in the Access & Management Center (AMC) called "Novel_Coronavirus", and we ask that you consider partnering with us by sharing data details for the "patient location" and "facility location" datasets. This will enable CDC staff to work with you and refine the queries that are in development, test dashboards to be used by state and local partners, and develop analytic approaches that will be useful if nCoV transmission becomes widespread in the US.

As always, we will seek your input and share results with you and won't publish or discuss anything externally about your data without your approval. If you decide that sharing your line level data is not an option, please contact us so we can discuss other ways to work together on this.

In addition, the NSSP team has created a dedicated Slack channel within the Health Surveillance workspace, and >100 members have already joined. This channel has enabled open communication and collaboration related to syndromic querying, investigations, and general surveillance for the novel coronavirus outbreak. If you are interested in becoming a part of the conversation, please email nssp@cdc.gov to be added. There has already been some helpful coordination and sharing of tools, so please take a look if you haven't already!

Thanks so much for your leadership in our Community of Practice and for your willingness to consider our request. Please let us know of your decision at your earliest convenience. Questions or responses can be directed to nssp@cdc.gov

Sincerely,

NSSP Surveillance Team
nssp@cdc.gov
<http://support.syndromicsurveillance.org>



From: CSTE Emergency Response
Sent: Monday, March 2, 2020 10:25 AM PST
To: CSTE Emergency Response
CC: CSTE Novel Coronavirus 2019; Sharon Watkins; Christine Hahn; Scott Becker; Scott Lindquist; Kathy Turner; O'Connor, Angelica (CDC/OID/NCEZID)
Subject: CSTE COVID-19 Response | Ad Hoc Weekly All State Epi Call - TODAY at 4:00 pm EST

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Sent to State Epidemiologists, CLUE and the CSTE Executive Board

REMINDER – Today's CSTE ad hoc weekly COVID-19 All State Epi call is set for **4:00 pm EST**. Please see the agenda and call information highlighted below, and note this call is limited to State Epidemiologists, CLUE and the CSTE Executive Board.

1. Welcome and Announcements, Sharon Watkins, CSTE President & Pennsylvania State Epidemiologist and Christine Hahn, Idaho State Epidemiologist
 - a. State Epidemiologist Transitions
 1. IL: Craig Conover, Acting
 2. TX: Stephen Pont, Acting
 3. TN: John Dunn, Permanent
2. COVID-19 Lab Testing Update, Scott Becker, APHL Chief Executive Officer
3. Notes from the Field: Washington State Update, Scott Lindquist, Washington State Epidemiologist
4. Update on SARS-CoV-2 Case Definition Discussions, Kathy Turner, Idaho Deputy State Epidemiologist
5. ELC Meeting Update, Angelica O'Connor, ELC Program Coordinator
6. ACIP Meeting Update, Chris Hahn, Idaho State Epidemiologist
7. Jurisdictional Experiences and Open Forum Discussion

Next Call, Monday, March 9, 2020, 4:00-5:00 pm EDT

Council of State and Territorial Epidemiologists • 2635 Century Parkway NE, Ste 700 • Atlanta, Georgia 30345 • 770.458.3811 • 770.458.8516

Topic: CSTE COVID-19 Response | Ad Hoc Weekly All State Epi Call

Host: Matt Cone

Date: Every Monday, from Monday, February 24, 2020 to Monday, May 4, 2020

Time: 4:00 pm, Eastern Standard Time (New York, GMT-05:00)

Session number: 794 313 782

Session password: epi4321

Please click the link below to see more information, or to start the session.

To start the session

1. Go to <https://cste.webex.com/cste/k2/j.php?MTID=tfefaa57e8bddcd420341120137d59a94>
2. Log in to your account.
3. Click "Start Now".
4. Follow the instructions that appear on your screen.

To view in other time zones or languages, please click the link

<https://cste.webex.com/cste/k2/j.php?MTID=tde7958b3ee30a95af0d6f666cb01aa2c>

To join the session by phone only

To receive a call back, provide your phone number when you join the training session, or call the number below and enter the access code.

Call-in toll-free number (US/Canada): 1-877-668-4490

Call-in toll number (US/Canada): 1-408-792-6300

Show toll-free dialing restrictions: https://www.webex.com/pdf/tollfree_restrictions.pdf

Access code: 794 313 782

For assistance

You can contact Matt Cone at:

mccone@cste.org

1-(678)-258-9582

To add this session to your calendar program (for example Microsoft Outlook), click this link:

<https://cste.webex.com/cste/k2/j.php?MTID=tcc9fb0b421fd49aec52a9401586cc521>

<https://www.webex.com>

IMPORTANT NOTICE: This Webex service includes a feature that allows audio and any documents and other materials exchanged or viewed during the session to be recorded. By joining this session, you automatically consent to such recordings. If you do not consent to the recording, discuss your concerns with the meeting host prior to the start of the recording or do not join the session. Please note that any such recordings may be subject to discovery in the event of litigation.

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Council of State and Territorial Epidemiologists
Emergency Preparedness & Response Mailbox
Business Hours Line: 770.458.3811
After-Hours Line: 678.256.3945

From: Rose, Laura E. (CDC/DDPHSS/OLSS/OLS)
Sent: Friday, February 21, 2020 9:12 AM PST
To: Duchin, Jeff
Subject: Automatic reply: slightly updated sentinel surveillance guidance

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

I am currently deployed to support the CDC response to COVID-19. Stacey Spies (SSpies@cdc.gov) is serving as Acting RAA Lead in my absence.

Warm regards,
Laura E. Rose, RAC
Regulatory Affairs Activity
Office of Laboratory Science Office of Laboratory Science and Safety (OLSS)
Centers for Disease Control & Prevention
P: 404-639-1084 | E: LERose@cdc.gov

From: Rose, Laura E. (CDC/DDPHSS/OLSS/OLS)
Sent: Friday, February 21, 2020 10:17 AM PST
To: Duchin, Jeff
Subject: Automatic reply: slightly updated sentinel surveillance guidance

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

I am currently deployed to support the CDC response to COVID-19. Stacey Spies (SSpies@cdc.gov) is serving as Acting RAA Lead in my absence.

Warm regards,
Laura E. Rose, RAC
Regulatory Affairs Activity
Office of Laboratory Science Office of Laboratory Science and Safety (OLSS)
Centers for Disease Control & Prevention
P: 404-639-1084 | E: LERose@cdc.gov

From: State and Local Readiness (CDC)
Sent: Friday, February 21, 2020 8:11 AM PST
To: State and Local Readiness (CDC)
Subject: 2-21-20 CDC Media Telebriefing: Update on COVID-19 AND 2-20-20 COVID-19 CDC Key Points
Attachments: CDC_COVID-19_Daily Key Points_2.20.20.pdf

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2-20-20 CDC COVID-19 Key Points are attached. Feel free to share with partners. See media advisory below.

Media Advisory

For Immediate Release
Friday, Feb. 21, 2020

Contact: [CDC Media Relations](#)
(404) 639-3286

CDC Media Telebriefing: Update on COVID-19

What The Centers for Disease Control and Prevention (CDC) will provide an update to media on the COVID-19 response.

Who Nancy Messonnier, M.D., Director,
National Center for Immunization and Respiratory Diseases

Ian Brownlee, Principal Deputy Assistant Secretary,
Bureau of Consular Affairs, Department of State

When 12:15 p.m. ET Friday, February 21, 2020

Dial-In

Non-Media: 888-795-0855
International: 1-630-395-0498
PASSCODE: 3896719

Important Instructions

Due to anticipated high volume, please plan to dial in to the telebriefing 15 minutes before the start time.

Media: If you would like to ask a question during the call, press *1 on your touchtone phone. Press *2 to withdraw your question. You may queue up at any time. You will hear a tone to indicate your question is pending.

TRANSCRIPT

A transcript will be available following the briefing at CDC's web site: www.cdc.gov/media.

###

U.S. Department of Health and Human Services

CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

CDC Daily Key Points
Coronavirus Disease 2019 (“COVID-19”) Outbreak
February 20, 2020

All content updated since February 19 is shown in colored text.

MAIN KEY POINTS

- There is an expanding outbreak of respiratory illness centered in China caused by a novel (new) coronavirus.
- The International Committee on Taxonomy of Viruses (ICTV) has named this virus “SARS-CoV-2.”
 - Due to potential for confusion with SARS-CoV, where possible, public communications will use “the virus that causes COVID-19.”
- This virus that causes COVID-19 is able to spread from person-to-person and has caused disease ranging from mild to severe, including disease resulting in death.
- Most cases and most person-to-person spread with the new virus have occurred in mainland China, but outbreaks of COVID-19 have been detected outside of China too.
- Most COVID-19 cases outside of China have been associated with travel to or from China, but some person-to-person spread has been detected, including some community spread.
 - Other destinations with apparent community spread of COVID-19 have been identified—Singapore, Thailand, Vietnam, South Korea, and Taiwan. Information about COVID-19 was added to the [CDC destination pages](#) for these locations on February 19.
- [CDC issued a Level 1 Travel Notice \(Practice Usual Precautions\) for Hong Kong and Japan on February 19.](#)
- [On February 20, the State Department updated their travel guidance for Hubei Province, China to recommend that U.S. citizens reconsider travel by cruise ship to or within East Asia and the Asia-Pacific Region.](#)
- The potential global public health threat posed by this virus is high, but right now, the immediate risk to most Americans is low.
- The greater risk is for people who have recently traveled to China or been exposed to someone with COVID-19.
- Fifteen cases of COVID-19 have been reported in the United States. Most cases of COVID-19 in the United States have been associated with travel from China but some person-to-person spread among close contacts of travelers has been seen.
- It’s important to note that this virus is not spreading in the community in the United States at this time.
- This is a rapidly evolving situation and the risk assessment for Americans may change.
- The federal government is working closely with state, local, tribal, and territorial partners, as well as public health partners, to respond to this public health threat.
- The public health response is multi-layered, with the goal of detecting and minimizing introductions of this virus in the United States so as to reduce the spread and the impact of this virus.
- Strategies are in place to reduce the number of travelers from China and screen the remaining travelers from that country for illness, with people potentially being subject to a 14-day quarantine.

- These measures are likely to cause some disruption.
- CDC has worked with Department of State to support the safe return of Americans overseas affected by the ongoing outbreaks of COVID-19, including most recently passengers from the *Diamond Princess* cruise ship. (See Section: “*Diamond Princess*”)
- The U.S. public health system also is on high alert to detect cases of COVID-19 and prevent further spread in the community.
- The success of response efforts now will determine what the coming days, weeks, and months will bring here in the United States.
- While leaning forward aggressively with the hope that we will be able to prevent community spread, we also are preparing for the worst.
- The current outbreak meets two criteria for a pandemic. It is a new virus and it is capable of person-to-person spread. If sustained person-to-person spread in the community takes hold outside China, this will increase the likelihood that a global pandemic will result.
- Extensive work has been done over the past 15 years in the United States to prepare for an influenza pandemic.
 - Influenza pandemic preparedness platforms and plans would be appropriate in the event that the current COVID-19 outbreak triggers a pandemic.
 - Public health partners are encouraged to review their pandemic preparedness plans at this time.

SITUATION UPDATE

- To date, 30 international locations (in addition to the U.S.) have reported confirmed cases of COVID-19.
- As of February 19, 15 cases of COVID-19 have been reported in the U.S. in seven states — Arizona, California, Illinois, Massachusetts, Texas, Washington, and Wisconsin.
 - To date, there have been 479 “persons under investigation” (PUIs) for possible COVID-19 reported to CDC, with 412 persons ruled out as negative. These data are updated regularly at www.cdc.gov/coronavirus/2019-ncov/cases-in-us.html.
 - These numbers do not include passengers from the *Diamond Princess* cruise ship, including presumptive-positive cases, who were returned to the U.S. via State Department-chartered flights.
 - It is likely that additional cases of COVID-19 will be detected in the United States.
- On February 20, 263 people were released from federal quarantine after being returned to the U.S. from Wuhan, China via State Department-chartered flights.
 - People released from quarantine pose no health risk to their communities.
- CDC established a COVID-19 Incident Management System on January 7. On January 21, CDC activated its Emergency Operations Center to better provide ongoing support to the response.
- CDC developed a real time Reverse Transcription-Polymerase Chain Reaction (rRT-PCR) test that can diagnose COVID-19 in respiratory samples from clinical specimens.
- CDC isolated the virus and shared this material with NIH’s BEI Resources Repository for use by the broad scientific community.
- CDC has been uploading the entire genome of the viruses from reported cases in the United States to GenBank as sequencing was completed.

- On February 3, CDC issued “Interim U.S. Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus Exposure in Travel-associated or Community Settings” to provide U.S. public health authorities and other partners with a framework for assessing and managing risk of potential exposures to COVID-19 and implementing public health actions based on a person’s risk level and clinical presentation.
- CDC is working with state and local health departments on investigations to trace contacts of the U.S. COVID-19 patients to detect person-to-person spread.
- As of February 19, CDC and Customs and Border (CBP) personnel had screened about 43,000 people with recent travel history to China at U.S. airports.

WHAT YOU CAN DO

- While the immediate risk of this new virus to the American public is believed to be low at this time, everyone can do their part to help us respond to this emerging public health threat:
 - It’s currently flu and respiratory disease season and CDC recommends getting a flu vaccine, taking everyday preventive actions to help stop the spread of germs, and taking flu antivirals if prescribed.
 - If you are a healthcare provider, be on the look-out for people with who recently traveled from China and fever and respiratory symptoms.
 - If you are a healthcare provider caring for a COVID-19 patient or a public health responder, please take care of yourself and follow recommended infection control procedures.
 - If you have been in China or have been exposed to someone sick with COVID-19 in the last 14 days, you will face some limitations on your movement and activity. Please follow instructions during this time. Your cooperation is integral to the ongoing public health response to try to slow spread of this virus. If you develop COVID-19 symptoms, contact your healthcare provider, and tell them about your symptoms and your travel or exposure to a COVID-19 patient.
 - For people who have had close contact with someone with COVID-19 who develop symptoms, contact your healthcare provider, and tell them about your symptoms and your exposure to a COVID-19 patient.
 - For people who are ill with COVID-19, please follow CDC guidance on how to reduce the risk of spreading your illness to others. This guidance is on the CDC website.

TESTING

- All testing for COVID-19 continues to be performed at CDC. At this time, all positive results from testing conducted in non-CDC, U.S. laboratories must be confirmed at CDC.
- CDC is remanufacturing test kits, which will be distributed following rigorous quality control processes.

REPATRIATED FLIGHTS & QUARANTINE ORDERS

- CDC has supported the Department of State in the safe and expedient ordered departure of U.S. citizens and residents affected by outbreaks of COVID-19.
 - Five chartered flights returned passengers from Wuhan City, China.

- Most recently, passengers from a cruise ship docked in Japan were repatriated. (See section: *Diamond Princess*)
- The Department of Health and Human Services (DHHS) Secretary, under statutory authority, issued federal quarantine orders to all such passengers entering the United States.
 - The quarantine period is for 14 days.
 - The quarantine is a precautionary and preventive step to maximize the containment of the virus in the interest of the health of the American public.
 - This quarantine order also serves to protect the health of the repatriated persons, their families, and their communities.
 - Medical staff monitor the health of each traveler, including temperature checks and observation for respiratory symptoms.
 - CDC works with the state and local public health departments to transport any passenger exhibiting symptoms to a hospital for further evaluation.
 - At the end of the 14-day period, people who have not developed symptoms will be free to leave.
- On February 12, 195 people from the first chartered flight were discharged from quarantine.
- On February 18, 347 people who were under federal quarantine were released.
- [On February 20, 263 people who were under federal quarantine were released.](#)

DIAMOND PRINCESS

- CDC is supporting the Department of State-led mission to repatriate U.S. citizens returning to the United States from Japan who were aboard the *Diamond Princess* cruise ship.
 - Due to the dynamic nature of the ongoing outbreak, the U.S. government recommended that U.S. citizens disembark and return to the United States.
- On February 16, 329 American citizens returned by flights chartered by the State Department.
 - The planes were met by a team of U.S. government personnel deployed at the bases to assess the health of the passengers.
 - The passengers were screened before leaving the ship and have been monitored and evaluated by medical and public health personnel during the trip and after arrival.
 - Those passengers who returned from Japan are being housed separately from the people already in quarantine who returned on previous U.S. Government repatriation flights from Wuhan.
- There are more than 100 American citizens still onboard the *Diamond Princess* cruise ship or in hospitals in Japan. These citizens have been placed under travel restrictions, as have the ship's other passengers and crew.
 - After disembarkation from the *Diamond Princess*, these passengers and crew will be required to wait at least 14 days without having symptoms or a positive coronavirus test result before they are permitted to board flights to the United States.
- The U.S. Government is taking measures to protect the health of the people under quarantine, their loved ones, and their communities, as well as the communities where they are being temporarily housed.
- Based on what is known about this virus and other coronaviruses, CDC believes the risk to the communities temporarily housing these people is low.

For more information please visit the Coronavirus Disease 2019 Outbreak Page at:
www.cdc.gov/COVID19.

From: Langley, Gayle E. (CDC/DDID/NCIRD/DVD)
Sent: Friday, February 21, 2020 8:04 AM PST
To: Arwady, Allison AA (CDC cityofchicago.org); Balter, Sharon (CDC ph.lacounty.gov); Bresee, Joseph (CDC/DDID/NCIRD/ID); Christine Mahle; Christopher Shields; Conover, Craig (CDC illinois.gov); Duchin, Jeff; Gail Cooksey; Ghinai, Isaac; Green, Nicole (CDC ph.lacounty.gov); Hector Rivas; Jain, Seema (CDC cdph.ca.gov); Jessica Sell; Justin DeWitt; Kauerauf, Judy (CDC illinois.gov); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Layden, Jennifer (CDC illinois.gov); Layton, Marci (CDC health.nyc.gov); Lindquist, Scott SL (CDC doh.wa.gov); Marelle Fricchione; Meredith Haddix; Molly Lamb; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov); Rose, Laura E. (CDC/DDPHSS/OLSS/OLS); Sarah Park; Black, Stephanie SB (CDC cityofchicago.org); Thomas-Smith, Evonda; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO); Weiss, Don (CDC health.nyc.gov); Zahn, Matthew
Subject: slightly updated sentinel surveillance guidance
Attachments: COVID_19 sentinel surveillance Feb 21 2020 FINAL.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hello. Enclosed please find a slightly updated version of the guidance document. The biggest change is updated wording of the info sheet. Talk to you soon, GAyle

Gayle Langley, MD, MPH, FAAP
Centers for Disease Control and Prevention
Respiratory Viruses Branch
Lead, RSV Epi Team
1600 Clifton Road NE MS H24-5
Atlanta, GA 30333
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**Guidance for Conducting Sentinel Surveillance to Detect
Signals of Potential Community Trans
mission of SARS-CoV-2**
February 19, 2020

Background

The Centers for Disease Control and Prevention (CDC) and state and local health departments are responding to an outbreak of respiratory disease termed coronavirus disease 2019 (COVID-19) that was first detected in Wuhan City, China in December of 2019. The virus, termed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has since spread to many other countries, including the United States. Current strategies for preventing the spread of infection include rapid detection and isolation of cases and tracing and monitoring their close contacts for signs of illness.

If community transmission of SARS-CoV-2 were occurring in the US, the only way to detect it would be to test patients without a known exposure. Because mild disease appears to be common with COVID-19, initial cases reflecting local community transmission are likely to be mild. However, current recommendations for who to test for SARS-CoV-2 in the US rely on a case definition that includes specific clinical (fever and signs of lower respiratory tract infection) and exposure criteria (recent travel to China or close contact with a known infected person). Adherence to this definition precludes identification of persons with mild illness who do not have a travel history or exposure to a known case. Detecting community transmission by testing individuals who do not meet current testing criteria is critical for shaping future response activities including testing criteria, quarantine guidance, investigation protocols, and additional public health preparedness measures. Most critically, results of sentinel surveillance will guide decisions on whether the national public health approach should shift from an aggressive containment strategy (e.g., use of quarantine for all contacts) to one focusing on pandemic preparation and mitigation (e.g., protecting health care workers by employing universal infection control precautions in health care facilities for all cases of fever and respiratory illness, recommending that mildly ill individuals stay home to prevent wider transmission, focusing on prioritizing healthcare resources on those most critically ill and consideration of community mitigation measures such as social distancing).

Objective

Conduct sentinel surveillance at select sites to determine if unrecognized community transmission of SARS-CoV-2 is occurring.

Methods

Surveillance populations

To identify evidence of community transmission, we propose setting up sentinel systems in some local United States jurisdictions with early COVID-19 cases or communities with large numbers of travelers from places where transmission is occurring to obtain respiratory specimens for SARS-CoV-2 testing in patients who deny recent travel history to China or direct contact with a COVID-19 case. To start, we propose establishing this “sentinel” surveillance at six sites: Los Angeles and San Francisco, California; Seattle, Washington; Chicago, Illinois; New York City, New York; and Honolulu, Hawaii. Additional sites may be added as testing capacity increases.

Under sentinel surveillance, each jurisdiction will prospectively obtain respiratory specimens collected from participants with fever and upper or lower respiratory symptoms who are presenting for clinical

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care. Some sites may choose to do this using an existing surveillance system for influenza or other respiratory viral diseases, while other sites may set up a system specifically for COVID-19 community transmission.

Each jurisdiction will determine the best source of specimens based on the predicted likelihood of detecting SARS-CoV-2. Some considerations for selection include:

1. Population served: To increase the likelihood of detecting SARS-CoV-2 if it is circulating in the US, facilities or laboratories serving populations with frequent travel from areas where transmission of SARS-CoV-2 is occurring should ideally be targeted.
2. Healthcare setting: Current clinical criteria for testing includes the presence of lower respiratory tract illness. Outpatient settings offer the opportunity to widen the scope of testing by including persons with milder respiratory infections. Other settings, including emergency department and hospital settings, are also acceptable alternatives since persons meeting the clinical criteria in those settings may not be tested because they do not meet exposure criteria (i.e. travel to China or close contact with a known case).
3. Specimens negative for other respiratory pathogens: Specimens with the highest yield may be those that are negative for influenza and other respiratory pathogens. Identification of an alternative (non-COVID-19) explanation for a person's respiratory illness may make COVID-19 detection in the specimen less likely, with the recognition that co-infections may occur.
4. Age group: While most reported COVID-19 cases have occurred in adults and there have been no cases detected in US children, it is possible that younger populations manifest more mild symptoms that would not be detected under current testing criteria. It is therefore recommended that sentinel surveillance include both children and adults.
5. Identification of persons tested: Since current recommendations include isolation of patients who have COVID-19 as well as contact tracing of close contacts, specimens will be obtained from persons who can be contacted for follow-up of a positive test (see **Follow-up of persons with SARS-CoV-2 detections** below).

Examples of how surveillance will be conducted at select sites are outlined below. Additional sites will follow similar surveillance procedures.

- Los Angeles, California: LA County DPH will conduct sentinel surveillance in the San Gabriel Valley region of LA County, which has a population of 1.35 million people and comprises 8 of the 10 cities with the highest proportion of Chinese immigrants in the U.S. We approached 10 hospitals in this region and identified 3 hospitals that conducted rapid influenza testing by using a viral transport media that is compatible with SARS-CoV-2 testing. These hospitals agreed to send to LA County DPH swab specimen that test negative for influenza. One of the hospitals (178-bed capacity) indicated that they are currently conducting an average of 40 rapid influenza tests daily, of which approximately 30% are positive for influenza. Therefore, we expect to receive approximately 25 swabs/day for testing at LA County DPH public health lab. Further, the hospital indicated that 95% of the rapid influenza tests are conducted in the Emergency Department.

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- New York City, New York: In Phase I (CDC lab performs all testing), NYC will seek to work with up to 3 outpatient facilities operated by Charles B Wang Community Health Centers (CBWCHC). These centers are located in two communities with a high proportion of Chinese language speakers: 1 adult center and 1 pediatric center in lower Manhattan (Chinatown) and 1 combination adult and pediatric center in Flushing, Queens. Since the specimen number is capped at 50 per city per week we will aim to collect 25 specimens per borough per week. The New York City Department of Health and Mental Hygiene (DOHMH) plans to station staff at each location to facilitate data collection, specimen collection, tracking, accessioning, and transport. Any patient who denies international travel in the 2 weeks before illness onset AND tests negative for influenza, and is well enough to be sent home, will be offered coronavirus testing. Because these centers use rapid influenza test kits, new swabs will need to be collected. DOHMH will supply the center with appropriate swabs and viral transport media. Providers will be asked to inform the patients of the plans to test them for COVID-19 as part of the general consent process for their medical evaluation, as well as inform them that if positive, they will be asked to self-isolate at home until 10 days after symptoms resolve. Patients will be able to opt out. At the time of specimen collection, DOHMH will collect additional information from patients on clinical symptoms and illness onset, recent travel (in the preceding 2 weeks) and occupation. To facilitate transport to CDC, specimens will be collected Mondays, Tuesdays, and Wednesdays including evening hours as per the center's schedules and will be transported to PHL and shipped to CDC either once or twice per week. DOHMH staff will be on site at the health centers to facilitate specimen and data collection. In the likely case that we pursue identified testing, positive and negative results will be returned to the provider. Positive results will prompt a rapid case investigation by DOHMH to reconfirm absence of travel history or known epidemiological links. In this scenario, we propose to isolate patients at home who have tested positive until 10 days after their illness resolves. Close contacts (household, intimate partners) will be identified BUT not placed in quarantine or home monitoring. Close contacts of cases who are confirmed with COVID-19 will be monitored daily and medically evaluated should they develop symptoms. The project will be presented to the DOHMH Institutional Review Board for review and request for exemption as public health surveillance. Once the CDC EUA is available to the NYC Public Health Laboratory, if there is still a need to document community transmission (i.e., if this has not yet been established), we would expand to additional sites including acute care settings, such as emergency departments serving these same areas of the city.

Collection, shipping and testing of specimens

Acceptable specimens include nasopharyngeal (NP) (preferred) or oropharyngeal (OP) that are collected with synthetic fiber swabs with plastic shafts. To maximize the number of persons tested, only one specimen should be collected per patient. Calcium alginate swabs or swabs with wooden shafts should not be used since they contain substances that inactivate some viruses. Place swabs immediately into sterile tubes containing 2-3 ml of viral transport media. Respiratory specimens should be transported in accordance with CDC guidance: <https://www.cdc.gov/coronavirus/2019-nCoV/lab/guidelines-clinical-specimens.html>.

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Specimens will need to be labelled so they are distinguished from specimens obtained from persons under investigations (PUIs). The labeling convention for sentinel surveillance will be “SURV-state abbreviation—unique number” (e.g. SURV-WA-001).

Specimens being tested at CDC should be shipped to:

ATTN: STAT LAB
c/o Steve Lindstrom, Shifaq Kamili (Unit 84)
Respiratory Viruses Diagnostic Laboratory / DVD
Centers for Disease Control and Prevention
1600 Clifton Road, NE
Atlanta, Georgia, 30333
Telephone: 404-639-1587

Please email completed shipping logs to dsrstat@cdc.gov when the shipment is in route.

The respiratory specimens will be tested for SARS-CoV-2 using CDC’s 2019-Novel Coronavirus Real-Time Reverse Transcriptase-PCR Diagnostic Panel that was authorized for use by the Food and Drug Administration under an Emergency Use Authorization (EUA) on February 4, 2020. It is intended for use with upper and lower respiratory specimens collected from persons who meet specified clinical and epidemiological criteria for testing. CDC will submit a new EUA request to conduct the surveillance activity outlined in this guidance. The specimens will be tested at CDC or at a public health laboratory designated by CDC as qualified and certified under the Clinical laboratory Improvement Amendments (CLIA) to perform high-complexity testing. Under current guidance, persons who test positive for SARS-CoV-2 would be identified, the positive result confirmed by CDC, and appropriate public health action would be pursued (see **Follow-up of persons with SARS-CoV-2 detections** below).

The table below shows the number of specimens that would need to be tested in order to detect one SARS-CoV-2 infection given the specified community prevalence and level of confidence. The number of specimens tested will depend in part on the availability of test kits. While CDC is doing all testing, we anticipate testing ~50 specimens a week per site (300 total specimens). Once kits are available at public health laboratories, we anticipate that each site would have enough assay reagents to test ~200 specimens a week.

Prevalence of nCoV to detect	Confidence level	# of specimens needed to test to identify 1 nCoV positive	Approx. # of nCoV kits needed**
0.50%	95%	598	1 kit
1.00%	95%	299	.5 kit

** Assumes each kit can test 700-800 specimens using a full plate.

Follow-up of persons with SARS-CoV-2 detections

Current CDC guidance recommends that persons with confirmed SARS-CoV-2 infection should be isolated either in a healthcare facility or at home depending on their clinical management requirements. Isolation is also recommended if the initial test is indeterminate at CDC or if the test is positive or

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indeterminate at a public health laboratory pending results of the confirmatory test at CDC. There are infection prevention and control recommendations for healthcare settings (<https://www.cdc.gov/coronavirus/2019-nCoV/hcp/infection-control.html>) and home settings (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-home-care.html>). Additionally, contact tracing and risk assessments of contacts should be initiated as soon as possible after identification of the positive result. Guidance for risk assessment and public health management of persons with potential exposure to SARS-CoV-2 can be found at: <https://www.cdc.gov/coronavirus/2019-ncov/php/risk-assessment.html>. Isolation and risk assessment guidance may change based on changes to patterns of SARS-CoV-2 circulation identified by sentinel surveillance or other means.

Considerations for when current containment strategies may change based on results of sentinel surveillance

The purpose of this surveillance activity is to determine if SARS-CoV-2 viruses are circulating in the community among persons with no exposures known to be associated with infection. If cases are detected in this surveillance that can't be linked to a known exposure, this information will help inform local and national decisions on measures to limit spread of the virus, including shifting the public health response focus to be more aligned with mitigation of a potential pandemic. A framework for this decision process is being developed by CDC in parallel with this surveillance system, and will be discussed with collaborators before the start of surveillance.

Data collection and analysis

Data collected will include basic demographics of the person tested (age and sex), county and state where testing occurred, setting where test was done (outpatient clinic, emergency department, hospital), date of specimen collection and result of SARS-CoV-2 testing. Only these data will be shared with CDC through a secured data transmission pathway. Health departments will also collect the hospital/facility name and person's name and contact information so appropriate follow-up of a positive test result can occur. These data will not be shared with CDC. Data will be presented in aggregate as the proportion of patients who test positive out of those tested, stratified by location, age and sex. CDC will only receive de-identified data individual or aggregated data.

Human subjects considerations

The activities under this protocol are part of public health surveillance and not considered research by CDC. Individual sites may have different determinations. The specimens obtained will be collected as part of routine clinical care or as a result of enrollment in another study. However, specimens will be identifiable to site staff since finding a positive SARS-CoV-2 result does have implications for clinical management of the patient. Therefore, it is recommended that the protocols for each participating site include patient consent or notification (and documentation in the medical record) that SARS-CoV-2 testing is being done prior to specimen collection. An example of the notification sheet is included in Appendix A.

Communication plan

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In preparation for the possibility that community cases not linked to travel will be identified through this sentinel surveillance, CDC and sites are developing a communication plan. It will outline for the public how surveillance is being conducted, how numbers of positives may translate into unrecognized cases in the communities where surveillance is being conducted and how containment or mitigation strategies may change as a result of the findings.

Appendix A

The *[State/local Department of Health]* and the Centers for Disease Control and Prevention (CDC) are closely monitoring an outbreak of respiratory disease caused by a novel (new) coronavirus.

Because of your (your child's) symptoms today, we would like to test to see if you (your child) have an infection caused by this new coronavirus. Results from this test could help us determine if the virus is present in the community.

A healthcare worker will use a sterile cotton-tipped swab to reach gently through your (your child's) nostril to swab the inside of the back of your nose. The swab will be sent to a public health laboratory. You (your child) may experience some temporary discomfort from the swab. If the test is positive, you (your child) may be asked to stay isolated from other people until the infection has cleared. Your (your child's) personal information and the results of your (your child's) testing will only be shared with the persons conducting this test and the *[State/local Department of Health]*. Beyond this, your (your child's) personal information will be kept private and will not be shared.

There are currently no plans for future use of your (your child's) laboratory specimens but it is possible the information will be used in future public health investigations. These investigations will NOT include genetic studies.

If you have questions or for more information, please contact *[DPH contact info?]*

Please sign here to indicate that you have read and understand this information:

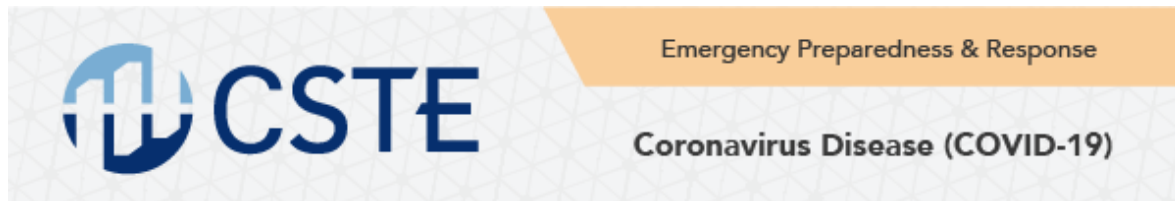
Print Name

Signature/Parent's/guardian's signature

Date

From: CSTE Emergency Response
Sent: Wednesday, March 4, 2020 8:46 AM PST
To: CSTE Emergency Response
CC: CSTE Novel Coronavirus 2019
Subject: CSTE COVID-19 Response | Daily AM Message for Mar. 4 (incl. CDC Key Points, CDC Media Statement, Updated Guidance and CARE Booklets, CSTE Website)
Attachments: CDC_COVID-19_Daily Key Points__3_3_2020_final.pdf, CDC Media Statement Additional COVID-19 Infections.msg.eml, COVID-19_GuidanceList_03MAR20[4].pdf

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Sent to State Epidemiologists, Deputy State Epidemiologists, CLUE, Infectious Disease Points of Contact, and the CSTE Executive Board

Good morning,

Please see below for today's AM collection of Coronavirus Disease 2019 (COVID-19) information, gathered for your awareness:

- [CDC Daily Key Points](#) [Attachment]
 - for Tuesday, March 3, 2020
- [CDC Media Statement](#) [Attachment]
 - dated Tuesday, March 3, 5:52 PM ET
- [CDC Guidance List](#) [Attachment]
 - Updated March 3, 2020
- [Updated CDC Guidance](#) [Links]
 - [Interim Guidance for Administrators of US Institutions of Higher Education \(IHE\) to Plan, Prepare, and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)
 - [Guidance for Student Foreign Travel for Institutions of Higher Education](#)
 - [Interim Guidance: Public Health Communicators Get Your Community Ready for Coronavirus Disease 2019 \(COVID-19\)](#)
 - [Preventing COVID-19 Spread in Communities](#)
 - [What Law Enforcement Personnel Need to Know about Coronavirus Disease 2019 \(COVID-19\)](#)
- [Updated CARE Booklet for China Travelers](#) [Link]
- [Reminder: New CSTE Emergency Preparedness & Response Website](#) [Link]
 - As CSTE continues to respond to the international outbreak of COVID-19, the National Office has created a new **Emergency Preparedness & Response website** to provide CSTE members and public health professionals with useful information on CSTE's current and past response

activities. It also includes helpful resources, such as After Hours/Epi-On-Call contact list, and other important contact information. To learn more, visit preparedness.cste.org.



Council of State and Territorial Epidemiologists
Emergency Preparedness & Response Mailbox

Business Hours Line: 770.458.3811

After-Hours Line: 678.256.3945

preparedness.cste.org

From: Media@cdc.gov (CDC)
Sent: Tuesday, March 3, 2020 2:52 PM PST
To: MMWR-MEDIA@LISTSERV.CDC.GOV
Subject: CDC Media Statement: Additional COVID-19 Infections

Media Statement

For Immediate Release
Tuesday, March 3, 2020

Contact: [CDC Media Relations](#)
(404) 639-3286

CDC Announces Additional COVID-19 Infections

At noon on Tuesday, March 3 the Centers for Disease Control and Prevention (CDC) reported 60 cases of COVID-19 from 12 states. Twenty-two of these cases are travel-related; 11 are believed to be person-to-person spread; and for the remaining 27 the source of exposure is still under investigation. Noteworthy developments in recent days include:

- [Florida](#) announced its first and second presumptive positive cases of COVID-19, one in a person with recent travel history ([to Italy](#)), the other with no currently known travel or contact history.
- [Georgia](#) announced its first and second confirmed cases of COVID-19, one is a person with recent travel history ([to Italy](#)), the other in a close contact of the first patient.
- [New Hampshire](#) also reported its first presumptive positive case of COVID-19 in a person with recent travel history ([to Italy](#)).
- [New York state](#) announced its first case of COVID-19 in a person with recent travel history ([to Iran](#)).
- [Rhode Island](#) announced its first presumptive positive case of COVID-19 in a person with recent travel history ([to Italy](#)).
- [Washington state](#) announced more cases of COVID-19 associated with an outbreak in a long-term care facility. Washington has announced it now has 14 cases of COVID-19, including 6 COVID-19 deaths.

The 12 states that have reported cases include: Arizona, California, Florida, Georgia, Illinois, Massachusetts, New Hampshire, New York, Oregon, Rhode Island, Washington, and Wisconsin.

As the outbreak of COVID-19 continues to expand and as testing capacity in the U.S. increases, CDC expects more cases to be detected across the country, including more instances of person-to-person spread in more states. While information so far suggests that most COVID-19 illness is mild, [a report](#) out of China suggests serious illness occurs in 16% of cases. Older people and people with certain underlying health conditions like heart disease, lung disease and diabetes, for example, seem to be at greater risk of serious illness.

The federal government has been working closely with state, local, tribal, and territorial partners, as well as public health partners, to prepare for and respond to this public health emergency. CDC expects additional instances of person-to-person spread in the coming days and weeks.

Cases reported to CDC include those confirmed by CDC as well as presumptive positive cases reported by states. A presumptive positive result is when a patient has tested positive by a public health laboratory, but results are pending confirmation at CDC. For public health purposes, a presumptive positive result using the CDC test is treated as a positive.

[CDC will report total presumptive and confirmed cases weekdays at noon.](#) This number is based on all state reports received by 4 p.m. the previous day. CDC is no longer reporting number of persons-under-investigation (PUIs) nor those PUIs that test negative because now that states are testing and reporting their own results, these numbers would not be representative of the testing being done nationally. States are reporting results quickly and in the event of a discrepancy between CDC and state case counts, the state case counts should always be considered more up-to-date.

For more information about COVID-19 visit www.cdc.gov/covid19.

###

[U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES](#)

[CDC works 24/7](#) protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

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CDC Daily Key Points
Coronavirus Disease 2019 (“COVID-19”) Outbreak
March 03, 2020

Updated text is shown in colored text.

SNAPSHOT

CDC has reported:

- 60 confirmed and presumptive positive cases of COVID-19
- 6 COVID-19 related deaths
- 12 states reporting cases of COVID-19

MAIN KEY POINTS

- There is an expanding global outbreak of respiratory illness called COVID-19 caused by a novel (new) coronavirus.
- Community spread is being detected in a growing number of countries, including in parts of the United States.
- There are 60 reported U.S. cases of COVID-19 from 12 states.
- The potential public health threat posed by COVID-19 is high, both globally and to the United States. Individual risk is dependent on exposure.
- Under current circumstances, certain people will have an increased risk of infection. For example:
 - People in communities where ongoing community spread with the virus that causes COVID-19 has been reported are at elevated though still relatively low risk of exposure.
 - Healthcare workers caring for patients with COVID-19 are at elevated risk of exposure.
 - Close contacts of persons with COVID-19 also are at elevated risk of exposure.
 - Travelers returning from affected international locations where community spread is occurring also are at elevated risk of exposure.
- Public health efforts at this time are focused concurrently on containing spread of this virus and mitigating the impact of this virus.
- At this time, there is no vaccine to protect against COVID-19 and no medications approved to treat it.
- Nonpharmaceutical interventions are actions, apart from getting vaccinated and taking medicine, that people and communities can take to help slow the spread of respiratory illnesses like COVID-19.
- Currently they are the most important response strategy against COVID-19.
- All communities can take measures to reduce the spread of COVID-19. Everyone has a role to play in getting ready and staying healthy.

SITUATION UPDATE

- On March 3, a Morbidity and Mortality Weekly Report (MMWR) Update was published titled “Active Monitoring of Persons Exposed to Patients with Confirmed COVID-19 — United States, January–February 2020.” (See Section “MMWR Update.”)

- As of March 3, 2020, [68](#) international locations (including the U.S.) have reported confirmed cases of COVID-19.
- [60 reported](#) cases of COVID-19 have been detected in Arizona, California, [Florida](#), [Georgia](#), Illinois, Massachusetts, New York, [New Hampshire](#), Oregon, [Rhode Island](#), Washington and Wisconsin.
 - [11](#) of these cases occurred through person-to-person spread.
 - [22](#) cases all were in persons who had travel to China.
 - [27 cases where the source of exposure is still under investigation.](#)
- As of March 3, [CDC issued Travel Health Notices](#) for the following locations:
 - [Level 3 Travel Health Notice \(avoid non-essential travel\): China, Iran, South Korea, and Italy](#)
 - [Level 2 Travel Health Notices \(Practice Enhanced Precautions\): Japan](#)
 - [Level 1 \(practice usual precautions\): Hong Kong](#)
- CDC also recommends that all travelers reconsider cruise ship voyages into or within Asia at this time.
 - This is consistent with [guidance by the U.S. State Department](#).
- The situation is rapidly evolving. CDC is constantly reviewing and updating its guidance as needed.

REPORTING

- [More public health laboratories are able to test for the virus that causes COVID-19, and they are reporting their results publicly.](#)
- [Because states are reporting publicly directly, sometimes in near real-time, CDC case counts may be different from what states, local authorities, or media are reporting.](#)
- [If there are discrepancies between case counts reported by state or local officials versus CDC reported numbers, the numbers provided by states will be the most up-to-date.](#)
- [State health laboratories are reporting their results to CDC.](#)
- [CDC is consolidating state reports and combining them with CDC confirmed test results and presenting a national aggregated case count daily from Monday through Friday.](#)
- [Case counts submitted to CDC by 4pm the prior day will be posted at noon.](#)
- [CDC is reporting cumulative confirmed and presumptive positive cases of COVID-19 in the United States since January 21, 2020.](#)
- [CDC is presenting data related to people who were repatriated via U.S. State Department flights from Wuhan, China and from the Diamond Princess cruise ship \(Japan\) in a separate chart available on the CDC website.](#)
- [CDC has discontinued reporting of the numbers of persons under investigation \(PUIs\) tested and those that tested negative.](#)
- [Now that states are testing and reporting their own results, CDC's numbers will not be representative of all the testing being done nationwide.](#)

MMWR UPDATE:

- On March 3, a *Morbidity and Mortality Weekly Report (MMWR)* Update was published titled [“Active Monitoring of Persons Exposed to Patients with Confirmed COVID-19 — United States, January–February 2020.”](#)
- This MMWR report summarizes the thorough steps that were taken during the early days of the COVID-19 response to track the country’s first the first 10 travel-related and the first 2 person-to-person (secondary from those travel-related cases) and their close contacts.
- CDC supported state/local public health officials as they tracked 445 close contacts of the first U.S. cases.

WHAT YOU CAN DO

- Everyone can do their part to help us respond to this emerging public health threat:
 - It’s currently flu and respiratory disease season and CDC recommends getting a flu vaccine, taking everyday preventive actions to help stop the spread of germs, and taking flu antivirals if prescribed.
 - [Individuals and communities should familiarize themselves with recommendations to protect themselves and their community from getting and spreading respiratory illnesses like coronavirus disease 2019.](#)
 - If you are a healthcare provider, be on the look-out for people who have been in close contact with a person known to have COVID-19, and [people who live in or have recently been in an area with ongoing spread, and have fever and respiratory symptoms.](#)
 - If you are a healthcare provider caring for a COVID-19 patient or a public health responder, please take care of yourself and follow [recommended infection control procedures.](#)
 - If you have recently been to an area with ongoing spread of COVID-19 or have been exposed to someone sick with COVID-19 in the last 14 days, you may face some limitations on your movement and activity. Please follow instructions during this time. Your cooperation is integral to the ongoing public health response to try to slow spread of this virus. If you develop COVID-19 symptoms, contact your healthcare provider, and tell them about your symptoms and your travel or exposure to a COVID-19 patient.
 - For people who have had close contact with someone with COVID-19 who develop symptoms, contact your healthcare provider, and tell them about your symptoms and your exposure to a COVID-19 patient.
 - For people who are ill with COVID-19, please follow [CDC guidance on how to reduce the risk of spreading your illness to others.](#)

CDC ACTIONS

- The federal government is working closely with state, local, tribal, and territorial partners, as well as public health partners, to respond to this public health threat.
- The public health response is multi-layered, with the goal of detecting and minimizing introductions of this virus in the United States to reduce the spread and the impact of this virus.

- CDC is operationalizing all of its pandemic preparedness and response plans, working on multiple fronts to meet these goals, including specific measures to prepare communities to respond local transmission of the virus that causes COVID-19.
- Pandemic guidance developed in anticipation of an influenza pandemic is being repurposed and adapted for a COVID-19 pandemic.
- Public health partners are encouraged to review their pandemic preparedness plans at this time.
- CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the United States.
- **CDC's Action for Preparing Communities for Potential Spread of COVID-19 include:**
 - Preparing first responders, healthcare providers, and health systems
 - Reinforcing state, territorial, and local public health readiness
 - Supporting communities, businesses, and schools

COMMUNITY BASED INTERVENTIONS (AKA COMMUNITY MITIGATION)

- Americans should be prepared for the possibility of a COVID-19 outbreak in their community. Everyone has a role to play.
- Currently a vaccine is not available for COVID-19. Until a vaccine is developed, community-based interventions, such as school dismissals, event cancellations, social distancing, plans to work remotely can help slow the spread of coronavirus.
- Your local public health department and community partners have been preparing for an event, like COVID-19 and have plans in place. Now is a good time for businesses, community and faith-based organizations, schools, and health-care systems to reexamine their preparedness plans to make sure they are ready.
- Strong community partnerships between local health departments, the health care sector, faith-based organizations, and other community partners are vital for this response, and will be necessary to prepare for and coordinate if an outbreak occurs.
 - Community-based interventions can be grouped in three categories:
 - Personal protective measures (e.g., voluntary home isolation of ill persons, voluntary home quarantine of exposed household members, covering nose/mouth when coughing or sneezing, hand hygiene, using face masks in community settings when ill)
 - Community measures aimed at increasing social distancing (e.g., school dismissals, social distancing in workplaces, postponing or cancelling mass gatherings)
 - Environmental measures (e.g., routine cleaning of frequently touched surfaces)
- CDC has recommendations to protect yourself and your community from getting and spreading respiratory illnesses like coronavirus disease 2019.

For more information please visit the Coronavirus Disease 2019 Outbreak Page at: www.cdc.gov/COVID19.

Last updated: March 3, 2020

CDC Coronavirus Disease 2019 (COVID-19) Guidance for State, Local, and Territorial Partners and Local Health Departments

Interim guidance documents relevant to State, Local, and Territorial partners regarding COVID-19

[CDC COVID-19 Website](#)

Highlighted Text= New since March 1, 2020

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Aircraft

[Interim Guidance for Airlines and Airline Crew: Coronavirus Disease 2019 \(COVID-19\)](#)

- Interim guidance for the commercial airline industry about COVID-19

[Preventing Spread of Disease on Commercial Aircraft: Guidance for Cabin Crew](#)

- This guidance provides cabin crew with practical methods to protect themselves, passengers, and other crew members when someone onboard is sick with a possible contagious disease.

[Safety Alert for Operators 20001: 2019 Novel Coronavirus: Interim Health Guidance for Air Carrier and Crews](#)

- Interim guidance from the CDC and Federal Aviation Administration for Air Carriers and Crewmembers

Businesses, Employers, and Schools

[Interim Guidance for Administrators of US Childcare Programs and K-12 Schools to Plan, Prepare, and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

- This interim guidance is intended to help administrators of public and private childcare programs and K-12 schools prevent the spread of COVID-19 among students and staff.

[Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\), February 2020](#)

- Interim guidance that may help prevent workplace exposures to acute respiratory illness, including COVID-19, in non-healthcare settings.

[Interim Guidance for Administrators of US Institutions of Higher Education \(IHE\) to Plan, Prepare, and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for administrators of public and private institutions of higher education (IHE) prevent the spread of COVID-19 among students, staff, and faculty.

[Guidance for Student Foreign Travel for Institutions of Higher Education](#)

- This guidance is for Institutes of Higher Education with students participating in foreign exchange or study abroad programs.

Communications

[Interim Guidance: Public Health Communicators Get Your Community Ready for Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for state and local public health information officers, health communication specialists, health educators, and other public health professionals responsible for planning communication strategies before, during, and after an outbreak of coronavirus disease (COVID-19).

-

Community Infection Control

[Interim Guidance for Preventing the Spread of Coronavirus Disease 2019 \(COVID-19\) in Homes and Residential Communities](#)

- Interim guidance to help prevent COVID-19 from spreading among people in their homes and in other residential communities.

[Interim Guidance for Discontinuation of In-Home Isolation for Patients with COVID-19](#)

- Interim guidance to help healthcare providers and public health officials managing patients with coronavirus disease (COVID-19) under in-home isolation to help prevent the spread of COVID-19 in the community.

Community Mitigation

[Preventing COVID-19 Spread in Communities](#): Landing page for community mitigation guidance.

How to prepare and take action for COVID-19

- [At home](#)
- [At childcare and K-12 schools](#)
- [At colleges and universities](#)
- [At work](#)
- [Healthcare settings](#)
- [Large community events/mass gatherings](#)
- [First responders](#)

[CDC in Action: Preparing Communities for Potential Spread of COVID-19](#)

- Information on how CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the United States.

Healthcare Facilities

[Interim Guidance for Healthcare Facilities: Preparing for Community Transmission of COVID-19 in the United States](#)

- Outlines goals and strategies for all U.S. healthcare facilities to prepare for and respond to community spread of coronavirus disease-2019 (COVID-19).

[Strategies to Prevent the Spread of COVID-19 in Long-Term Care Facilities \(LTCF\)](#)

- General strategies CDC recommends to prevent the spread of COVID-19 in LTCF

[Steps Healthcare Facilities Can Take Now to Prepare for Coronavirus Disease 2019 \(COVID-19\)](#)

Healthcare Professionals and Infection Control

[Evaluating and Reporting Persons Under Investigation \(PUI\)](#)

- The Centers for Disease Control and Prevention (CDC) clinical criteria for a COVID-19 person under investigation (PUI). Subject to change as additional information becomes available.

[Coronavirus Disease 2019 \(COVID-19\) Risk Assessment and Public Health Management Decision Making](#)

- Flowchart for the evaluation of patients who may be ill with or who may have been exposed to COVID-19.

[Interim Infection Prevention and Control Recommendations for Patients with Confirmed Severe acute respiratory syndrome coronavirus 2 \(SARS-CoV-2\) or Persons Under Investigation for SARS-CoV-2 in Healthcare Settings](#)

- Interim infection control procedures including administrative rules and engineering controls, environmental hygiene, correct work practices, and appropriate use of personal protective equipment (PPE) are all necessary to prevent infections from spreading during healthcare delivery. **This guidance is not intended for non-healthcare settings (e.g., schools) OR to persons outside of healthcare settings.**

[Interim Guidance of Emergency Medical Services \(EMS\) Systems and 911 Public Safety Answering Points \(PASPs\) for COVID-19 in the United States](#)

- Interim guidance for all first responders, including law enforcement, fire services, emergency medical services, and emergency management officials, who anticipate close contact with persons with confirmed or possible COVID-19 in the course of their work

[Interim Guidance for Collection and Submission of Postmortem Specimens from Deceased Persons Under Investigation \(PUI\) for COVID-19, February 2020](#)

- Interim guidance for the collection and submission of postmortem specimens from deceased persons under investigation (PUI) for COVID-19. This document also provides recommendations for biosafety and infection control practices during specimen collection and handling, including during autopsy procedures. The guidance can be utilized by medical examiners, coroners, pathologists, other workers involved in the postmortem care of deceased PUI, and local and state health departments.

[Interim Guidance for Discontinuation of Transmission-Based Precautions and Disposition of Hospitalized Patients with COVID-19](#)

- Interim guidance for healthcare providers and public health officials managing patients with coronavirus disease (COVID-19) to help prevent the spread of COVID-19 in healthcare facilities.

[Interim Clinical Guidance for Management of Patients with Confirmed COVID-19](#)

- Interim guidance for clinicians caring for patients with confirmed COVID-19

-

[Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance for staff at local and state health departments, infection prevention and control professionals, and healthcare personnel who are coordinating the home care and isolation¹ of people with confirmed or suspected 2019-nCoV infection, including persons under investigation (see [Criteria to Guide Evaluation of Persons Under Investigation \(PUI\) for 2019- nCoV](#)).

[Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance intended to assist with assessment of risk, monitoring, and work restriction decisions for HCP with potential exposure to 2019-nCoV. For guidance on assessment and management of exposure risk in non-healthcare settings, refer to [the Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus \(2019-nCoV\) Exposure in Travel-associated or Community Settings](#).

Maritime

[Interim Guidance for Ships on Managing Suspected Coronavirus Disease 2019](#)

- Interim guidance for ships originating from, or stopping in, the United States to help prevent, detect, and medically manage suspected 2019-nCoV infections.

[Laboratories](#)

[Research Use Only Real-Time RT-PCR Protocol for Identification of 2019-nCoV](#)

- This document describes the use of real-time RT PCR (rRT-PCR) assays for the in vitro qualitative detection of SARS-CoV-2 in respiratory specimens and sera.

[Research Use Only 2019-Novel Coronavirus \(2019-nCoV\) Real-time RT-PCR Primer and Probe Information](#)

Law Enforcement Personnel

[What Law Enforcement Personnel Need to Know about Coronavirus Disease 2019 \(COVID-19\)](#)

- Interim guidance for Law Enforcement Personnel

Personal Protective Equipment (PPE)

[Checklist for Healthcare Facilities: Strategies for Optimizing the Supply of N95 Respirators during the COVID-19 Response](#)

[Healthcare Supply of Personal Protective Equipment](#)

- CDC specific PPE recommendations based on the current COVID-19 situation and availability of PPE.

Optimizing N95 Strategies

- [Strategies for Optimizing the Supply of N95 Respirators](#)
- [Strategies for Optimizing the Supply of N95 Respirators: Contingency Capacity Strategies](#)
 - In the continuum of care, the following measures can be categorized as contingency capacity, which may change daily practices but may not have any significant impact on the care delivered to the patient or the safety of the HCP.
- [Strategies for Optimizing the Supply of N95 Respirators: Crisis/Alternate Strategies](#)
 - These crisis capacity or alternate strategies accompany and build on the conventional and contingency capacity strategies. The following measures are not commensurate with current U.S. standards of care.

[Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response](#)

- U.S. Government decision makers are considering whether these products should be released for use during the COVID-19 response. Information is provided below that may be used to inform these product release decisions.

Public Health Officials

[Information for Health Departments on Reporting a Person Under Investigation \(PUI\) for 2019-nCoV](#)

- Information for health departments on reporting and specimen referral for Persons Under Investigation (PUIs).
 - [Case Report Form for 2019 Novel Coronavirus](#)

[Interim Guidance: Public Health Communicators Get Your Community Ready for Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for state and local public health information officers, health communication specialists, health educators, and other public health professionals responsible for planning communication strategies before, during, and after an outbreak of coronavirus disease (COVID-19).

[Interim Guidance for Public Health Personnel Evaluating Persons Under Investigation \(PUIs\) and Asymptomatic Close Contacts of Confirmed Cases at Their Home or Non-Home Residential Settings](#)

- Guidance is intended to address recommended infection prevention and control practices when public health interviews or assessments are performed at a home or non-home residential settings.

[Pandemic Preparedness Resources](#)

- While the content at the links provided below was developed to prepare for, or respond to, an influenza (“flu”) pandemic, the newly emerged coronavirus disease 2019 (COVID-19) is a respiratory disease that seems to be spreading much like flu. Guidance developed for influenza pandemic preparedness would be appropriate in the event the current COVID-19 outbreak triggers a pandemic.

Pregnant Women and Children

[Interim Guidance on Breastfeeding for a Mother Confirmed or Under Investigation for COVID-19](#)

- Interim guidance for women who are confirmed to have COVID-19 or are [persons-under- investigation \(PUI\)](#) for COVID-19 and are currently breastfeeding.

[Interim Considerations for Infection Prevention and Control of Coronavirus Disease 2019 \(COVID-19\) in Inpatient Obstetric Healthcare Settings](#)

- Interim for healthcare facilities providing obstetric care for pregnant patients with confirmed coronavirus disease (COVID-19) or pregnant [persons under investigation \(PUI\)](#) in inpatient obstetric healthcare settings including obstetrical triage, labor and delivery, recovery and inpatient postpartum settings.

Travelers

[Information for Travelers](#)

- This page includes information about 2019 novel coronavirus (COVID-19) for travelers going to and returning from China, and information for aircrew and resources ship industry.

[Travelers to China](#)

- Travel recommendations for travel to China

[Travelers from China arriving in the U.S.](#)

- Information for travelers from China arriving to the U.S.

Risk Assessment

[Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus \(COVID-19\) Exposure in Travel-associated or Community Settings](#)

- Interim guidance to provide U.S. public health authorities and other partners with a framework for assessing and managing risk of potential exposures to COVID-19 and implementing public health actions based on a person's risk level and clinical presentation.

[Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance is intended to assist with assessment of risk, monitoring, and work restriction decisions for healthcare providers with potential exposure to COVID-19.

Stigma

[Stigma Related to COVID-19](#)

- Information to combat stigma and discrimination associated with COVID-19.

Frequently Asked Questions (FAQs)

[Frequently Asked Questions and Answers about COVID-19](#)

- General FAQs

[Healthcare Infection Prevention and Control FAQs for COVID-19](#)

- **Who is this for:** Healthcare personnel who may care for patients who are confirmed with or under investigation for COVID-19.
- **What is it for:** This creates FAQs to support the existing [Healthcare Infection Prevention and Control Guidance for COVID-19](#).
- **How is it used:** To assist healthcare facilities in preventing transmission of COVID-19 in healthcare settings.

[Frequently Asked Questions and Answers: Coronavirus Disease-2019 \(COVID-19\) and Children](#)

- This is a list of frequently asked questions and answers for questions about COVID-19 relating to children.

[Frequently Asked Questions and Answers: Coronavirus Disease 2019 \(COVID-19\) and Pregnancy](#)

- This is a list of frequently asked questions and answers for pregnant women, infants, and women who are breastfeeding.

[Frequently Asked Questions about Respirators and their Use](#)

[Healthcare Professionals: Frequently Asked Questions and Answers](#)

- FAQs for healthcare professionals

[Information for Laboratories COVID-19 Requests for Diagnostic Panels and Virus](#)

- FAQs for lab professionals

[Travel: Frequently Asked Questions and Answers](#)

- General travel-related FAQs

Additional Resources

[2020 Health Alert \(HAN\) Messages](#): CDC's Health Alert Network (HAN) is CDC's primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, territorial, tribal, and local public health practitioner; clinicians; and public health laboratories.

[CDC Newsroom: CDC Media Telebriefing: Update on COVID-19](#): CDC provides an update periodically to media on the COVID-19 response. Sign up for media announcements.

[Clinician Outreach and Communication Activity \(COCA\) Calls/Webinars](#): During COCA Calls/Webinars, subject matter experts present key emergency preparedness and response topics, followed by meaningful Q&A with participants. The call or webinar will offer the most up to date information on guidance for clinicians.

[Travel Health Notices](#): Travel Health Notices inform travelers and clinicians about current health issues that impact travelers' health, like disease outbreaks, special events or gatherings, and natural disasters, in specific international destinations.

[Coronavirus Disease 2019 \(COVID-19\) Risk Assessment and Public Health Management Decision Making](#)

From: State and Local Readiness (CDC)
Sent: Friday, February 28, 2020 8:24 AM PST
To: State and Local Readiness (CDC)
Subject: 2-28-2020 CDC Media Telebriefing: Update on COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Media Advisory

For Immediate Release
Friday Feb. 28, 2020

Contact: [CDC Media Relations](#)
(404) 639-3286

CDC Media Telebriefing: Update on COVID-19

What The Centers for Disease Control and Prevention (CDC) will provide an update to media on the COVID-19 response.

Who Nancy Messonnier, M.D., Director,
National Center for Immunization and Respiratory Diseases

When 12:15 p.m. ET Friday, Feb. 28, 2020

Dial-In

Non-Media: 888-795-0855
International: 1-630-395-0498
PASSCODE: 6656039

Important Instructions

Due to anticipated high volume, please plan to dial in to the telebriefing 15 minutes before the start time.

Media: If you would like to ask a question during the call, press *1 on your touchtone phone. Press *2 to withdraw your question. You may queue up at any time. You will hear a tone to indicate your question is pending.

TRANSCRIPT

A transcript will be available following the briefing at CDC's web site: www.cdc.gov/media.

###

U.S. Department of Health and Human Services

CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

From: State and Local Readiness (CDC)
Sent: Thursday, February 27, 2020 5:22 AM PST
To: State and Local Readiness (CDC)
Subject: 2-26-20 CDC COVID-19 Key Points and CDC's New COVID-19 "What's New Weekly Update"
Attachments: CDC_COVID-19_Daily Key Points__2_26_2020.pdf

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Dear Colleagues:

Attached please find the CDC COVID-19 key points for Wednesday, February 26, 2020. Feel free to share among partners and appropriate parties.

Thank you,
State Coordination Task Force



**Sign-up to Receive CDC's New
COVID-19 "What's New" Weekly Update**

Dear CDC EPIC Partners and Subscribers,

We would like to share with you CDC's new COVID-19 "What's New" weekly E-Newsletter that is being launched this week.

We invite you to [sign up](#) to receive these weekly updates, delivered right to your inbox every Monday, so you can stay current with this rapidly evolving situation.

Sincerely,

CDC's EPIC Team

Sent by BCC to PHEP Directors, SHOS, State Epis, Non-governmental Partners, STLTs, and BCHC

CDC Daily Key Points
Coronavirus Disease 2019 (“COVID-19”) Outbreak
February 26, 2020

All content updated since February 25 is shown in [colored text](#).

MAIN KEY POINTS

- There is an expanding global outbreak of respiratory illness caused by a novel (new) coronavirus.
- This virus has been named “SARS-CoV-2;” the disease it causes has been named COVID-19.
 - Due to potential for confusion with SARS-CoV, where possible, public communications will use “the virus that causes COVID-19.”
- While most COVID-19 cases outside of China have been associated with travel to or from China, community spread is being detected in a growing number of countries.
- [Destinations with widespread or sustained community spread of COVID-19 include China, Iran, Italy, Japan, and South Korea.](#)
- [Other destinations with instances of apparent community spread include Hong Kong, Singapore, Taiwan, Thailand, and Vietnam.](#)
- The fact that COVID-19 has caused illness, including illness resulting in death, and sustained person-to-person spread is concerning. These factors meet two of the criteria of a pandemic.
- As community spread is detected in more and more countries, the world moves closer toward meeting the third criteria, worldwide spread of the new virus.
- The potential public health threat posed by COVID-19 is high, both globally and to the United States.
- But individual risk is dependent on exposure.
- For the general American public, who are unlikely to be exposed to this virus at this time, the immediate health risk from COVID-19 is low.
- Under current circumstances, certain people will have an increased risk of infection.
 - For example, healthcare workers caring for patients with COVID-19 and other close contacts of persons with COVID-19.
- CDC has developed guidance to help in the risk assessment and management of people with potential exposures to COVID-19.
- CDC expects that more cases will be reported in the United States, including person-to-person spread.
- Global efforts at this time are focused concurrently on containing spread of and mitigating the impact of this virus.
- The federal government is working closely with state, local, tribal, and territorial partners, as well as public health partners, to respond to this public health threat.
- The public health response is aggressive and multi-layered, with the goal of detecting introductions of this virus in the United States and reducing the spread and the impact of this virus.
- CDC is operationalizing all of its pandemic preparedness and response plans, working on multiple fronts to meet these goals, including specific measures to [prepare communities](#) to respond local transmission of the virus that causes COVID-19.

- [Pandemic guidance](#) developed in anticipation of an influenza pandemic is being repurposed and adapted for a COVID-19 pandemic.
- Public health partners are encouraged to review their pandemic preparedness plans at this time.
- At this time, there is no vaccine to protect against COVID-19 and no medications approved to treat it.
- [Nonpharmaceutical interventions](#) (NPIs) would be the most important response strategy. [NPIs simultaneously help contain the spread of disease and reduce the impact of disease.](#)

SITUATION UPDATE

- To date, [42](#) international locations (including the U.S.) have reported confirmed cases of COVID-19, [most recently Algeria, Austria, Brazil, Croatia, Switzerland.](#)
- [CDC is reviewing and updating their travel guidance daily.](#)
- To date, CDC has issued:
 - [Level 3 Travel Health Notices \(Avoid Nonessential Travel\) for China and South Korea.](#)
 - [Level 2 Travel Health Notices \(Practice Enhanced Precautions\) for Iran, Italy, and Japan.](#)
 - [Level 1 Travel Health Notices \(Practice Usual Precautions\) for Hong Kong.](#)
- CDC also recommends that all travelers reconsider cruise ship voyages into or within Asia at this time.
 - This is consistent with [guidance by the U.S. State Department.](#)
- This is a rapidly evolving situation. CDC is constantly reviewing and updating its guidance as needed.
- CDC is reporting confirmed cases of COVID-19 in the United States in two categories:
 1. Cases detected through our domestic public health systems, and
 2. Cases among people who were repatriated via U.S. State Department flights from Wuhan, China and from the *Diamond Princess* cruise ship (Japan).
- [15](#) cases of COVID-19 have been detected through U.S. public health surveillance.
 - Two of these cases occurred through person-to-person spread.
 - [On February 26, CDC confirmed an infection with the virus that causes COVID-19 in a person who reportedly did not have relevant travel history or exposure to another COVID-19 patient.](#)
 - [It's possible this could be an instance of community spread of COVID-19, which would be the first time that has happened in the United States.](#)
 - [Community spread means spread of an illness for which the source of infection is unknown.](#)
 - [It's also possible, however, that the patient may have been exposed to a returned traveler who was infected.](#)
 - All the remaining cases detected through the U.S. public health system were in persons who had travel to China.
- [45](#) cases of COVID-19 have been detected among the 1,100+ people repatriated from Hubei Province, China and the *Diamond Princess*.
 - 3 people were repatriated from Wuhan.
 - [42](#) people were repatriated from the Diamond Princess, an increase of [2](#) since yesterday.

- Almost all of the people from the Wuhan flights who were quarantined have finished their 14-day quarantine period.
- Because the passengers on the Diamond Princess were in a close setting where there was significant spread of COVID-19, they are considered at high-risk for infection. CDC expects to see additional confirmed cases of among those passengers.

WHAT YOU CAN DO

- While the immediate risk of this new virus to the American public is believed to be low at this time, everyone can do their part to help us respond to this emerging public health threat:
 - It's currently flu and respiratory disease season and CDC recommends getting a flu vaccine, taking everyday preventive actions to help stop the spread of germs, and taking flu antivirals if prescribed.
 - If you are a healthcare provider, be on the look-out for people with who recently traveled from China and fever and respiratory symptoms.
 - If you are a healthcare provider caring for a COVID-19 patient or a public health responder, please take care of yourself and follow recommended infection control procedures.
 - If you have been in China or have been exposed to someone sick with COVID-19 in the last 14 days, you will face some limitations on your movement and activity. Please follow instructions during this time. Your cooperation is integral to the ongoing public health response to try to slow spread of this virus. If you develop COVID-19 symptoms, contact your healthcare provider, and tell them about your symptoms and your travel or exposure to a COVID-19 patient.
 - For people who have had close contact with someone with COVID-19 who develop symptoms, contact your healthcare provider, and tell them about your symptoms and your exposure to a COVID-19 patient.
 - For people who are ill with COVID-19, please follow CDC guidance on how to reduce the risk of spreading your illness to others. This guidance is on the CDC website.

TESTING

- CDC and FDA have developed a protocol that uses two of the three components of the original CDC test kit to detect the virus that causes COVID-19.
- By the end of this week, at least 40 public health laboratories should be able to begin testing using existing kits in their laboratories.
- Further, FDA and CDC have identified additional kits that will be evaluated and could be shipped to public health laboratories.
- In addition, CDC has two laboratories conducting testing for the virus that causes COVID-19. CDC can test approximately 400 specimens per day.
- Commercial labs are working to develop their own tests and hopefully will be available soon. This will allow a greater number of tests to happen close to where potential cases are.

CDC ACTIONS

- CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the United States.

- **Preparing first responders, healthcare providers, and health systems:**
 - Establishing **visibility across healthcare systems** to understand healthcare use, particularly surges in demand for medical care and associated resources.
 - Conducting **extensive outreach to clinical and hospital professional organizations** to ensure health system [preparedness](#).
 - Producing more than [23 guidance documents](#) on infection control, hospital preparedness assessments, personal protective equipment (PPE) supply planning, and clinical evaluation and management (as of February 22, 2020).
 - Working closely with healthcare facilities and providers to **reinforce [infection control principles](#)** that recognize PPE is one component of a larger set of practices that help to limit the spread of disease.
 - **Developing a range of [respirator conservation strategies](#)**, including strategies to make supplies last longer (such as using alternative products like reusable respirators) and extending the use of disposable respirators.
 - Leveraging existing **telehealth tools** to direct people to the right level of healthcare for their medical needs.
 - **Working with supply chain partners** to understand supply usage, what products are available, and when more aggressive measures may need to be taken to ensure that healthcare workers at highest risk have access to PPE.
 - **Sharing information with stakeholders** to help them recognize when to shift the strategies they are using.
- **Reinforcing state, territorial, and local public health readiness:**
 - **Assessing state and local readiness** to implement community mitigation measures like home containment, including housing and transportation needs.
 - Coordinating with states to **identify and mitigate gaps in readiness** that will help reduce the spread of disease in the community while protecting workers, infrastructure, and institutions.
 - Linking public health agencies and healthcare systems to **identify and mitigate stressors to the health system**
 - **Tracking stockpiles of PPE** across jurisdictions.
 - Working with state and local public health to **use existing [Public Health Emergency Preparedness \(PHEP\)](#) funding** to support COVID-19 preparedness and response activities.
 - Leveraging funding mechanisms to help states **accelerate preparedness activities**.
 - Providing **technical assistance and guidance** to states to improve their ability to respond to the outbreak.
- **Supporting communities, businesses, and schools:**
 - [Creating business guidance](#) to help the public and private sectors ensure they are able to operate with adaptations like telework and flexible sick leave policies, as well as how to respond if an employee gets sick.
 - **Developing guidance for childcare programs, K-12 schools, and colleges/universities** to help them plan and prepare for COVID-19 and respond if there is a local outbreak in their community.

- Providing **planning guides for COVID-19** that households, community- and faith-based organizations, event planners of mass gatherings, and public health communicators can use.
- Educating communities about **nonpharmaceutical interventions (NPIs)** that help slow the spread of illness, like COVID-19.

NONPHARMACEUTICAL INTERVENTIONS

- Nonpharmaceutical Interventions (NPIs) are actions, apart from getting vaccinated and taking medicine, that people and communities can take to help slow the spread of illnesses like pandemic flu or COVID-19.
- NPIs are also known as community mitigation strategies.
- When a new virus spreads among people, causing illness worldwide, it is called a pandemic.
- Because the virus is new, the human population has little or no immunity against it. This allows the virus to spread quickly from person to person worldwide.
- NPIs are among the best ways of controlling a pandemic caused by a respiratory virus when vaccines are not yet available.
- NPIs are grouped in three categories:
 1. personal NPIs (personal protective measures for everyday use and personal protective measures reserved for influenza pandemics);
 2. community NPIs (social distancing measures and school closures and dismissals); and
 3. environmental NPIs (surface cleaning measures)
- View [information about NPIs](#) and [factors to consider before implementing nonpharmaceutical interventions](#).

For more information please visit the Coronavirus Disease 2019 Outbreak Page at:
www.cdc.gov/COVID19.

From: Chrissie Juliano
Sent: Thursday, February 27, 2020 11:10 AM PST
To: Allison Arwady; Barbara Ferrer; Bob McDonald; Colfax, Grant (DPH); Dawn Emerick (SAMHD); Denise Fair (faiird@detroitmi.gov); Dzirasa, Letitia; Fermin Leguen; Gibbie Harris; Gretchen Musicant (Gretchen.Musicant@minneapolismn.gov); Duchin, Jeff; Kelly Colopy (kelly.colopy@longbeach.gov); Kimi Watkins-Tartt; LaQuandra Nesbitt; Marcy Flanagan (Marcy.Flanagan@maricopa.gov); Merle R. Gordon; Muntu Davis; Mysheika Roberts; Oxiris Barbot; Hayes, Patty; Phil Huang; Rachael Banks (rachael.m.banks@multco.us); Rex Archer; Rita Nieves; Sara Cody - Santa Clara County Public Health Department (sara.cody@phd.sccgov.org); Stephanie Hayden (Stephanie.Hayden@austintexas.gov); Stephen Williams; Thomas Farley; Tomás Aragón; Villalta, Yesenia D; Vinny Taneja - Tarrant County Health Department (vtaneja@tarrantcounty.com); Wilma Wooten
CC: Gabrielle Nichols
Subject: FW: Syndromic Surveillance Data Sharing for COVID-19
Attachments: COVID19Sharing.png, FW Request to Share Data for Novel Coronavirus Response.msg.eml

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Jose mentioned this at our meeting on Tuesday. I will add it to the meeting notes but in the interest of getting it out, sending to y'all directly.

Chrissie Juliano, MPP

Executive Director

[Big Cities Health Coalition](#) | [@BigCitiesHealth](#)

Desk Phone: 301-664-2989

7501 Wisconsin Ave., Ste. 1310E
Bethesda, MD 20814

From: Lansang Tran, Rhea Lanee (CDC/DDPHSIS/CSTLTS/OD) <ngl1@cdc.gov>
Sent: Thursday, February 27, 2020 1:59 PM
To: Chrissie Juliano <juliano@bigcitieshealth.org>
Subject: Syndromic Surveillance Data Sharing for COVID-19

Hi Chrissie,

Please see the two attachments regarding syndromic data sharing for COVID-19. Please share with the Big Cities members as you see fit. It was encouraging to see so much interest and support; we hope they sign up at their earliest convenience.

Thank you!

Respectfully,

Rhea-Lanee Lansang Tran, MPH, CHES
Special Assistant to the CSTLTS Director

Office of the Director
Center for State, Tribal, Local, and Territorial Support
Centers for Disease Control and Prevention
Desk phone: (404) 498-1045
Work cell: (404) 310-4015

From: Yoon, Paula (CDC/DDPHSS/CSELS/DHIS) <pay3@cdc.gov>
Sent: Wednesday, February 26, 2020 12:38:31 PM

Jose,

Attached is the latest map and the email that went out to SyS colleagues in states about the data sharing collaboration. Feel free to share these materials as needed.

Thank you again for all of your help with this!

Paula

From: Yoon, Paula (CDC/DDPHSS/CSELS/DHIS)
Sent: Wednesday, February 26, 2020 9:35 AM PST
To: Yoon, Paula (CDC/DDPHSS/CSELS/DHIS)
Subject: FW: Request to Share Data for Novel Coronavirus Response

From: nssp (CDC) <nssp@cdc.gov>
Sent: Thursday, February 13, 2020 8:58 AM
To: nssp (CDC) <nssp@cdc.gov>
Cc: Coletta, Michael A. (CDC/DDPHSS/CSELS/DHIS) <mac0@cdc.gov>; Davis, Alan (CDC/DDPHSS/CSELS/DHIS) <ald7@cdc.gov>; Rodgers, Loren E. (CDC/DDPHSS/CSELS/DHIS) <izi8@cdc.gov>; Worlund, Max (CDC/DDPHSS/CSELS/DHIS) (CTR) <zgy3@cdc.gov>; Kommareddy, Laxma (CDC/DDPHSS/CSELS/DHIS) (CTR) <vyz1@cdc.gov>
Subject: Request to Share Data for Novel Coronavirus Response

Dear Colleagues,

As you know, NSSP staff have been working closely with our community in order to develop queries and methods for using syndromic data to bolster surveillance for novel Coronavirus (COVID-19). We would like to request your assistance and cooperation by sharing data with selected CDC partners.

We established a new data sharing group in the Access & Management Center (AMC) called "Novel_Coronavirus", and we ask that you consider partnering with us by sharing data details for the "patient location" and "facility location" datasets. This will enable CDC staff to work with you and refine the queries that are in development, test dashboards to be used by state and local partners, and develop analytic approaches that will be useful if nCoV transmission becomes widespread in the US.

As always, we will seek your input and share results with you and won't publish or discuss anything externally about your data without your approval. If you decide that sharing your line level data is not an option, please contact us so we can discuss other ways to work together on this.

In addition, the NSSP team has created a dedicated Slack channel within the Health Surveillance workspace, and >100 members have already joined. This channel has enabled open communication and collaboration related to syndromic querying, investigations, and general surveillance for the novel coronavirus outbreak. If you are interested in becoming a part of the conversation, please email nssp@cdc.gov to be added. There has already been some helpful coordination and sharing of tools, so please take a look if you haven't already!

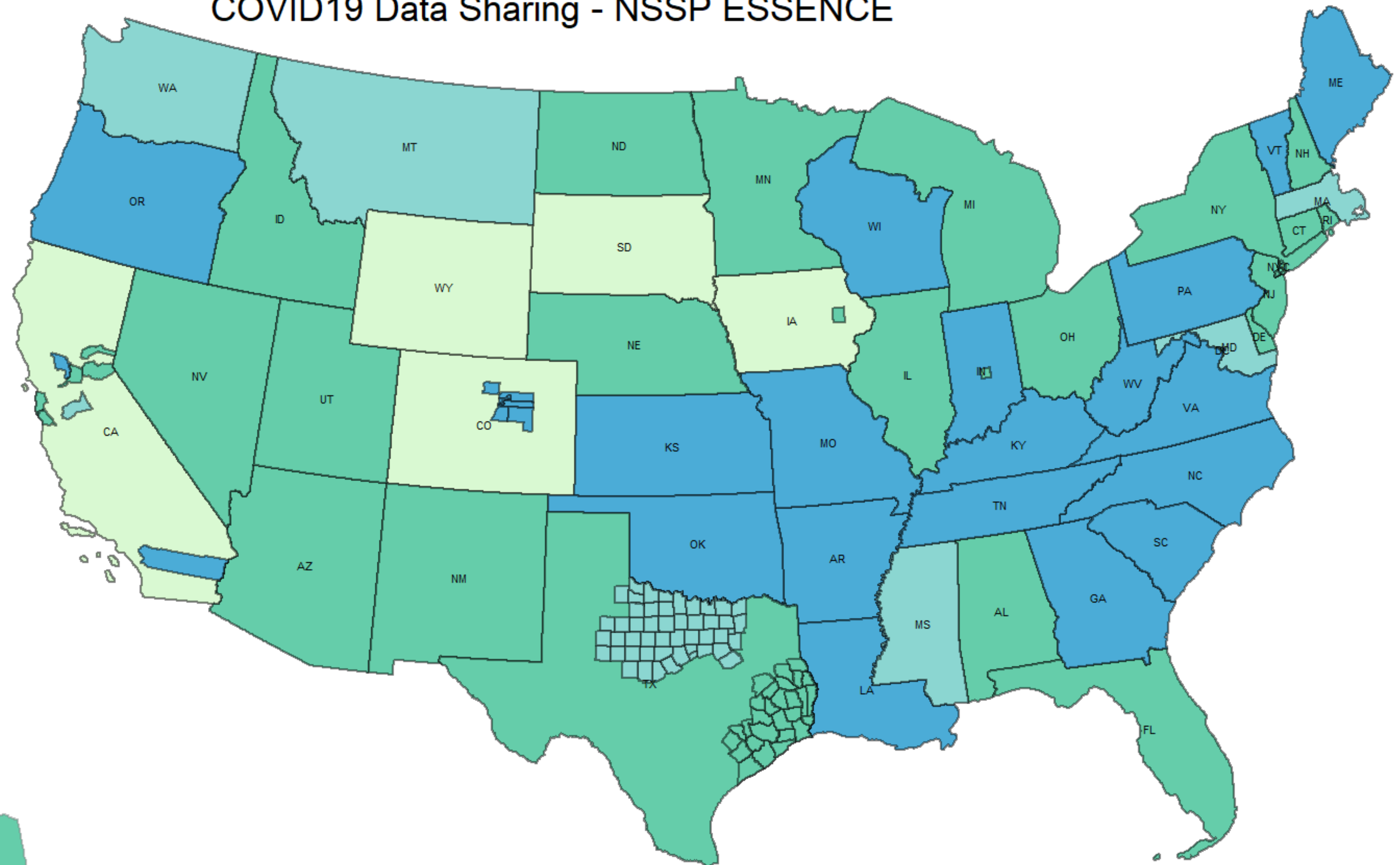
Thanks so much for your leadership in our Community of Practice and for your willingness to consider our request. Please let us know of your decision at your earliest convenience. Questions or responses can be directed to nssp@cdc.gov

Sincerely,

NSSP Surveillance Team
nssp@cdc.gov
<http://support.syndromicsurveillance.org>



COVID19 Data Sharing - NSSP ESSENCE



Alaska

Hawaii

- Sharing
- Interested
- Not Sharing
- Not Submitting to NSSP-Biosense

From: Baker, Michael (OS/IEA)
Sent: Wednesday, March 4, 2020 11:23 AM PST
To: Baker, Michael (OS/IEA)
Subject: HHS Announces Initial Funding to Jurisdictions Supporting COVID-19 Response

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Dear Partner –

Today, the U.S. Department of Health and Human Services (HHS), through the Centers for Disease Control and Prevention (CDC) is [announcing upcoming action](#) to provide initial resources to a limited number of state and local jurisdictions in support of our nation's response to the coronavirus disease 2019 (COVID-19).

“State and local governments are the backbone of our public health system. They have been essential partners in the ongoing work to contain and mitigate the spread of COVID-19 in the United States,” said HHS Secretary Alex Azar. “The Trump Administration is acting swiftly through every avenue we have to ensure state and local governments have the support they need to combat this outbreak.”

“CDC is committed to working with state, local, tribal and territorial public health departments to mitigate community spread of novel coronavirus in this nation,” said CDC Director Robert R. Redfield, M.D. “Our partners are on the front lines of this response and we support their efforts to increase needed public health capacity to confront the challenges this virus presents.”

Using funds provided to CDC through the HHS Secretary's Transfer, CDC will:

- Award an initial \$25 million cooperative agreement to the states and local jurisdictions who have borne the largest burden of response and preparedness activities to date. This is an initial award for those jurisdictions who require immediate assistance for activities such as monitoring of travelers, data management, lab equipment, supplies, staffing, shipping, infection control, and surge staffing. Once supplemental funding is provided, support will be provided to all states and local jurisdictions for a variety of critical public health activities.
- Award an initial \$10 million cooperative agreement to state and local jurisdictions to begin implementation of coronavirus surveillance across the U.S., building on existing influenza activities and other surveillance systems. This initial award is for a limited number of jurisdictions. Once supplemental funding is provided, additional support will be provided to all states and local jurisdictions to enhancing testing and surveillance.

CDC will use existing networks to reach out to state and local jurisdictions to access this initial funding.

For more information about COVID-19, please visit CDC's website: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Sincerely,
Darcie

Darcie L. Johnston
Director, Intergovernmental Affairs
U.S. Department of Health and Human Services
Darcie.Johnston@hhs.gov

From: State and Local Readiness (CDC)
Sent: Monday, March 2, 2020 8:13 AM PST
To: State and Local Readiness (CDC)
Subject: 3-2-2020 CDC Media Telebriefing: Update on COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Media Advisory

For Immediate Release
Monday March 2, 2020

Contact: [CDC Media Relations](#)
(404) 639-3286

CDC Media Telebriefing: Update on COVID-19

What The Centers for Disease Control and Prevention (CDC) will provide an update to media on the COVID-19 response.

Who Nancy Messonnier, M.D., Director,
National Center for Immunization and Respiratory Diseases

Stephen M. Hahn, M.D., Food and Drug Administration
Commissioner

When 12 p.m. ET Monday, March 2, 2020

Dial-In

Non-Media: 888-795-0855
International: 1-630-395-0498
PASSCODE: 3896719

Important Instructions

Due to anticipated high volume, please plan to dial in to the telebriefing 15 minutes before the start time.

Media: If you would like to ask a question during the call, press *1 on your touchtone phone. Press *2 to withdraw your question. You may queue up at any time. You will hear a tone to indicate your question is pending.

TRANSCRIPT

A transcript will be available following the briefing at CDC's web site: www.cdc.gov/media.

###

U.S. Department of Health and Human Services

CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

(Sent by BCC to PHEP directors, state epidemiologists, state health officials, public health laboratory directors, and national and federal partners)

From: State and Local Readiness (CDC)
Sent: Tuesday, March 3, 2020 7:32 AM PST
To: State and Local Readiness (CDC)
Subject: 03-03-2020 CDC Media Telebriefing: Update on COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Media Advisory

For Immediate Release
Tuesday, March 3, 2020

Contact: [CDC Media Relations](#)
(404) 639-3286

CDC Media Telebriefing: Update on COVID-19

What The Centers for Disease Control and Prevention (CDC) will provide an update to media on the COVID-19 response.

Who Nancy Messonnier, M.D., Director,
National Center for Immunization and Respiratory Diseases

When 1:00 p.m. ET Tuesday, March 3, 2020

Dial-In

Non-Media: 888-795-0855
International: 1-517-308-9127
PASSCODE: 4603973

Important Instructions

Due to anticipated high volume, please plan to dial in to the telebriefing 15 minutes before the start time.

Media: If you would like to ask a question during the call, press *1 on your touchtone phone. Press *2 to withdraw your question. You may queue up at any time. You will hear a tone to indicate your question is pending.

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U.S. Department of Health and Human Services

CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America's most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

(Sent by BCC to PHEP directors, state epidemiologists, state health officials, public health laboratory directors, and national and federal partners)

From: State and Local Readiness (CDC)
Sent: Tuesday, March 3, 2020 4:27 PM PST
To: State and Local Readiness (CDC)
Subject: CDC COVID-19 Updated Guidance and CARE Booklets
Attachments: COVID-19_GuidanceList_03MAR20.pdf

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Dear Colleagues:

Attached is the CDC COVID-19 Updated guidance list for 03-03-2020.

As was shared previously, the updated **CARE booklet for China travelers** is available here:

<https://www.cdc.gov/coronavirus/2019-ncov/travelers/care-booklet.html>.

Updated Guidance Includes:

[Interim Guidance for Administrators of US Institutions of Higher Education \(IHE\) to Plan, Prepare, and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for administrators of public and private institutions of higher education (IHE) prevent the spread of COVID-19 among students, staff, and faculty.

[Guidance for Student Foreign Travel for Institutions of Higher Education](#)

- This guidance is for Institutes of Higher Education with students participating in foreign exchange or study abroad programs.

[Interim Guidance: Public Health Communicators Get Your Community Ready for Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for state and local public health information officers, health communication specialists, health educators, and other public health professionals responsible for planning communication strategies before, during, and after an outbreak of coronavirus disease (COVID-19).

[Preventing COVID-19 Spread in Communities](#): Landing page for community mitigation guidance.

How to prepare and take action for COVID-19

[What Law Enforcement Personnel Need to Know about Coronavirus Disease 2019 \(COVID-19\)](#)

- Interim guidance for Law Enforcement Personnel

Kind Regards,

State Coordination Task Force

(Sent by BCC to PHEP directors, state epidemiologists, state health officials, public health laboratory directors, and national and federal partners)

Last updated: March 3, 2020

CDC Coronavirus Disease 2019 (COVID-19) Guidance for State, Local, and Territorial Partners and Local Health Departments

Interim guidance documents relevant to State, Local, and Territorial partners regarding COVID-19

[CDC COVID-19 Website](#)

Highlighted Text= New since March 1, 2020

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Aircraft

[Interim Guidance for Airlines and Airline Crew: Coronavirus Disease 2019 \(COVID-19\)](#)

- Interim guidance for the commercial airline industry about COVID-19

[Preventing Spread of Disease on Commercial Aircraft: Guidance for Cabin Crew](#)

- This guidance provides cabin crew with practical methods to protect themselves, passengers, and other crew members when someone onboard is sick with a possible contagious disease.

[Safety Alert for Operators 20001: 2019 Novel Coronavirus: Interim Health Guidance for Air Carrier and Crews](#)

- Interim guidance from the CDC and Federal Aviation Administration for Air Carriers and Crewmembers

Businesses, Employers, and Schools

[Interim Guidance for Administrators of US Childcare Programs and K-12 Schools to Plan, Prepare, and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

- This interim guidance is intended to help administrators of public and private childcare programs and K-12 schools prevent the spread of COVID-19 among students and staff.

[Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\), February 2020](#)

- Interim guidance that may help prevent workplace exposures to acute respiratory illness, including COVID-19, in non-healthcare settings.

[Interim Guidance for Administrators of US Institutions of Higher Education \(IHE\) to Plan, Prepare, and Respond to Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for administrators of public and private institutions of higher education (IHE) prevent the spread of COVID-19 among students, staff, and faculty.

[Guidance for Student Foreign Travel for Institutions of Higher Education](#)

- This guidance is for Institutes of Higher Education with students participating in foreign exchange or study abroad programs.

Communications

[Interim Guidance: Public Health Communicators Get Your Community Ready for Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for state and local public health information officers, health communication specialists, health educators, and other public health professionals responsible for planning communication strategies before, during, and after an outbreak of coronavirus disease (COVID-19).

-

Community Infection Control

[Interim Guidance for Preventing the Spread of Coronavirus Disease 2019 \(COVID-19\) in Homes and Residential Communities](#)

- Interim guidance to help prevent COVID-19 from spreading among people in their homes and in other residential communities.

[Interim Guidance for Discontinuation of In-Home Isolation for Patients with COVID-19](#)

- Interim guidance to help healthcare providers and public health officials managing patients with coronavirus disease (COVID-19) under in-home isolation to help prevent the spread of COVID-19 in the community.

Community Mitigation

[Preventing COVID-19 Spread in Communities](#): Landing page for community mitigation guidance.

How to prepare and take action for COVID-19

- [At home](#)
- [At childcare and K-12 schools](#)
- [At colleges and universities](#)
- [At work](#)
- [Healthcare settings](#)
- [Large community events/mass gatherings](#)
- [First responders](#)

[CDC in Action: Preparing Communities for Potential Spread of COVID-19](#)

- Information on how CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the United States.

Healthcare Facilities

[Interim Guidance for Healthcare Facilities: Preparing for Community Transmission of COVID-19 in the United States](#)

- Outlines goals and strategies for all U.S. healthcare facilities to prepare for and respond to community spread of coronavirus disease-2019 (COVID-19).

[Strategies to Prevent the Spread of COVID-19 in Long-Term Care Facilities \(LTCF\)](#)

- General strategies CDC recommends to prevent the spread of COVID-19 in LTCF

[Steps Healthcare Facilities Can Take Now to Prepare for Coronavirus Disease 2019 \(COVID-19\)](#)

Healthcare Professionals and Infection Control

[Evaluating and Reporting Persons Under Investigation \(PUI\)](#)

- The Centers for Disease Control and Prevention (CDC) clinical criteria for a COVID-19 person under investigation (PUI). Subject to change as additional information becomes available.

[Coronavirus Disease 2019 \(COVID-19\) Risk Assessment and Public Health Management Decision Making](#)

- Flowchart for the evaluation of patients who may be ill with or who may have been exposed to COVID-19.

[Interim Infection Prevention and Control Recommendations for Patients with Confirmed Severe acute respiratory syndrome coronavirus 2 \(SARS-CoV-2\) or Persons Under Investigation for SARS-CoV-2 in Healthcare Settings](#)

- Interim infection control procedures including administrative rules and engineering controls, environmental hygiene, correct work practices, and appropriate use of personal protective equipment (PPE) are all necessary to prevent infections from spreading during healthcare delivery. **This guidance is not intended for non-healthcare settings (e.g., schools) OR to persons outside of healthcare settings.**

[Interim Guidance of Emergency Medical Services \(EMS\) Systems and 911 Public Safety Answering Points \(PASPs\) for COVID-19 in the United States](#)

- Interim guidance for all first responders, including law enforcement, fire services, emergency medical services, and emergency management officials, who anticipate close contact with persons with confirmed or possible COVID-19 in the course of their work

[Interim Guidance for Collection and Submission of Postmortem Specimens from Deceased Persons Under Investigation \(PUI\) for COVID-19, February 2020](#)

- Interim guidance for the collection and submission of postmortem specimens from deceased persons under investigation (PUI) for COVID-19. This document also provides recommendations for biosafety and infection control practices during specimen collection and handling, including during autopsy procedures. The guidance can be utilized by medical examiners, coroners, pathologists, other workers involved in the postmortem care of deceased PUI, and local and state health departments.

[Interim Guidance for Discontinuation of Transmission-Based Precautions and Disposition of Hospitalized Patients with COVID-19](#)

- Interim guidance for healthcare providers and public health officials managing patients with coronavirus disease (COVID-19) to help prevent the spread of COVID-19 in healthcare facilities.

[Interim Clinical Guidance for Management of Patients with Confirmed COVID-19](#)

- Interim guidance for clinicians caring for patients with confirmed COVID-19

-

[Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance for staff at local and state health departments, infection prevention and control professionals, and healthcare personnel who are coordinating the home care and isolation¹ of people with confirmed or suspected 2019-nCoV infection, including persons under investigation (see [Criteria to Guide Evaluation of Persons Under Investigation \(PUI\) for 2019- nCoV](#)).

[Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance intended to assist with assessment of risk, monitoring, and work restriction decisions for HCP with potential exposure to 2019-nCoV. For guidance on assessment and management of exposure risk in non-healthcare settings, refer to [the Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus \(2019-nCoV\) Exposure in Travel-associated or Community Settings](#).

Maritime

[Interim Guidance for Ships on Managing Suspected Coronavirus Disease 2019](#)

- Interim guidance for ships originating from, or stopping in, the United States to help prevent, detect, and medically manage suspected 2019-nCoV infections.

[Laboratories](#)

[Research Use Only Real-Time RT-PCR Protocol for Identification of 2019-nCoV](#)

- This document describes the use of real-time RT PCR (rRT-PCR) assays for the in vitro qualitative detection of SARS-CoV-2 in respiratory specimens and sera.

[Research Use Only 2019-Novel Coronavirus \(2019-nCoV\) Real-time RT-PCR Primer and Probe Information](#)

Law Enforcement Personnel

[What Law Enforcement Personnel Need to Know about Coronavirus Disease 2019 \(COVID-19\)](#)

- Interim guidance for Law Enforcement Personnel

Personal Protective Equipment (PPE)

[Checklist for Healthcare Facilities: Strategies for Optimizing the Supply of N95 Respirators during the COVID-19 Response](#)

[Healthcare Supply of Personal Protective Equipment](#)

- CDC specific PPE recommendations based on the current COVID-19 situation and availability of PPE.

Optimizing N95 Strategies

- [Strategies for Optimizing the Supply of N95 Respirators](#)
- [Strategies for Optimizing the Supply of N95 Respirators: Contingency Capacity Strategies](#)
 - In the continuum of care, the following measures can be categorized as contingency capacity, which may change daily practices but may not have any significant impact on the care delivered to the patient or the safety of the HCP.
- [Strategies for Optimizing the Supply of N95 Respirators: Crisis/Alternate Strategies](#)
 - These crisis capacity or alternate strategies accompany and build on the conventional and contingency capacity strategies. The following measures are not commensurate with current U.S. standards of care.

[Release of Stockpiled N95 Filtering Facepiece Respirators Beyond the Manufacturer-Designated Shelf Life: Considerations for the COVID-19 Response](#)

- U.S. Government decision makers are considering whether these products should be released for use during the COVID-19 response. Information is provided below that may be used to inform these product release decisions.

Public Health Officials

[Information for Health Departments on Reporting a Person Under Investigation \(PUI\) for 2019-nCoV](#)

- Information for health departments on reporting and specimen referral for Persons Under Investigation (PUIs).
 - [Case Report Form for 2019 Novel Coronavirus](#)

[Interim Guidance: Public Health Communicators Get Your Community Ready for Coronavirus Disease 2019 \(COVID-19\)](#)

- Information for state and local public health information officers, health communication specialists, health educators, and other public health professionals responsible for planning communication strategies before, during, and after an outbreak of coronavirus disease (COVID-19).

[Interim Guidance for Public Health Personnel Evaluating Persons Under Investigation \(PUIs\) and Asymptomatic Close Contacts of Confirmed Cases at Their Home or Non-Home Residential Settings](#)

- Guidance is intended to address recommended infection prevention and control practices when public health interviews or assessments are performed at a home or non-home residential settings.

[Pandemic Preparedness Resources](#)

- While the content at the links provided below was developed to prepare for, or respond to, an influenza (“flu”) pandemic, the newly emerged coronavirus disease 2019 (COVID-19) is a respiratory disease that seems to be spreading much like flu. Guidance developed for influenza pandemic preparedness would be appropriate in the event the current COVID-19 outbreak triggers a pandemic.

Pregnant Women and Children

[Interim Guidance on Breastfeeding for a Mother Confirmed or Under Investigation for COVID-19](#)

- Interim guidance for women who are confirmed to have COVID-19 or are [persons-under- investigation \(PUI\)](#) for COVID-19 and are currently breastfeeding.

[Interim Considerations for Infection Prevention and Control of Coronavirus Disease 2019 \(COVID-19\) in Inpatient Obstetric Healthcare Settings](#)

- Interim for healthcare facilities providing obstetric care for pregnant patients with confirmed coronavirus disease (COVID-19) or pregnant [persons under investigation \(PUI\)](#) in inpatient obstetric healthcare settings including obstetrical triage, labor and delivery, recovery and inpatient postpartum settings.

Travelers

[Information for Travelers](#)

- This page includes information about 2019 novel coronavirus (COVID-19) for travelers going to and returning from China, and information for aircrew and resources ship industry.

[Travelers to China](#)

- Travel recommendations for travel to China

[Travelers from China arriving in the U.S.](#)

- Information for travelers from China arriving to the U.S.

Risk Assessment

[Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus \(COVID-19\) Exposure in Travel-associated or Community Settings](#)

- Interim guidance to provide U.S. public health authorities and other partners with a framework for assessing and managing risk of potential exposures to COVID-19 and implementing public health actions based on a person's risk level and clinical presentation.

[Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance is intended to assist with assessment of risk, monitoring, and work restriction decisions for healthcare providers with potential exposure to COVID-19.

Stigma

[Stigma Related to COVID-19](#)

- Information to combat stigma and discrimination associated with COVID-19.

Frequently Asked Questions (FAQs)

[Frequently Asked Questions and Answers about COVID-19](#)

- General FAQs

[Healthcare Infection Prevention and Control FAQs for COVID-19](#)

- **Who is this for:** Healthcare personnel who may care for patients who are confirmed with or under investigation for COVID-19.
- **What is it for:** This creates FAQs to support the existing [Healthcare Infection Prevention and Control Guidance for COVID-19](#).
- **How is it used:** To assist healthcare facilities in preventing transmission of COVID-19 in healthcare settings.

[Frequently Asked Questions and Answers: Coronavirus Disease-2019 \(COVID-19\) and Children](#)

- This is a list of frequently asked questions and answers for questions about COVID-19 relating to children.

[Frequently Asked Questions and Answers: Coronavirus Disease 2019 \(COVID-19\) and Pregnancy](#)

- This is a list of frequently asked questions and answers for pregnant women, infants, and women who are breastfeeding.

[Frequently Asked Questions about Respirators and their Use](#)

[Healthcare Professionals: Frequently Asked Questions and Answers](#)

- FAQs for healthcare professionals

[Information for Laboratories COVID-19 Requests for Diagnostic Panels and Virus](#)

- FAQs for lab professionals

[Travel: Frequently Asked Questions and Answers](#)

- General travel-related FAQs

Additional Resources

[2020 Health Alert \(HAN\) Messages](#): CDC's Health Alert Network (HAN) is CDC's primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, territorial, tribal, and local public health practitioner; clinicians; and public health laboratories.

[CDC Newsroom: CDC Media Telebriefing: Update on COVID-19](#): CDC provides an update periodically to media on the COVID-19 response. Sign up for media announcements.

[Clinician Outreach and Communication Activity \(COCA\) Calls/Webinars](#): During COCA Calls/Webinars, subject matter experts present key emergency preparedness and response topics, followed by meaningful Q&A with participants. The call or webinar will offer the most up to date information on guidance for clinicians.

[Travel Health Notices](#): Travel Health Notices inform travelers and clinicians about current health issues that impact travelers' health, like disease outbreaks, special events or gatherings, and natural disasters, in specific international destinations.

[Coronavirus Disease 2019 \(COVID-19\) Risk Assessment and Public Health Management Decision Making](#)

From: State and Local Readiness (CDC)
Sent: Wednesday, March 4, 2020 7:47 AM PST
To: State and Local Readiness (CDC)
Subject: 03-03-2020 CDC COVID-19 Key Points
Attachments: CDC_COVID-19_Daily Key Points__3_3_2020_final.pdf

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Dear Colleagues:

Attached are the **CDC COVID-19 Key Points for March 3rd, 2020**. Feel free to share with partners and appropriate parties.

Kind Regards,

State Coordination Task Force

(Sent by BCC to PHEP directors, state epidemiologists, state health officials, public health laboratory directors, BCHC, and national and federal partners)

CDC Daily Key Points
Coronavirus Disease 2019 (“COVID-19”) Outbreak
March 03, 2020

Updated text is shown in colored text.

SNAPSHOT

CDC has reported:

- 60 confirmed and presumptive positive cases of COVID-19
- 6 COVID-19 related deaths
- 12 states reporting cases of COVID-19

MAIN KEY POINTS

- There is an expanding global outbreak of respiratory illness called COVID-19 caused by a novel (new) coronavirus.
- Community spread is being detected in a growing number of countries, including in parts of the United States.
- There are 60 reported U.S. cases of COVID-19 from 12 states.
- The potential public health threat posed by COVID-19 is high, both globally and to the United States. Individual risk is dependent on exposure.
- Under current circumstances, certain people will have an increased risk of infection. For example:
 - People in communities where ongoing community spread with the virus that causes COVID-19 has been reported are at elevated though still relatively low risk of exposure.
 - Healthcare workers caring for patients with COVID-19 are at elevated risk of exposure.
 - Close contacts of persons with COVID-19 also are at elevated risk of exposure.
 - Travelers returning from affected international locations where community spread is occurring also are at elevated risk of exposure.
- Public health efforts at this time are focused concurrently on containing spread of this virus and mitigating the impact of this virus.
- At this time, there is no vaccine to protect against COVID-19 and no medications approved to treat it.
- Nonpharmaceutical interventions are actions, apart from getting vaccinated and taking medicine, that people and communities can take to help slow the spread of respiratory illnesses like COVID-19.
- Currently they are the most important response strategy against COVID-19.
- All communities can take measures to reduce the spread of COVID-19. Everyone has a role to play in getting ready and staying healthy.

SITUATION UPDATE

- On March 3, a Morbidity and Mortality Weekly Report (MMWR) Update was published titled “Active Monitoring of Persons Exposed to Patients with Confirmed COVID-19 — United States, January–February 2020.” (See Section “MMWR Update.”)

- As of March 3, 2020, [68](#) international locations (including the U.S.) have reported confirmed cases of COVID-19.
- [60 reported](#) cases of COVID-19 have been detected in Arizona, California, [Florida](#), [Georgia](#), Illinois, Massachusetts, New York, [New Hampshire](#), Oregon, [Rhode Island](#), Washington and Wisconsin.
 - [11](#) of these cases occurred through person-to-person spread.
 - [22](#) cases all were in persons who had travel to China.
 - [27 cases where the source of exposure is still under investigation.](#)
- As of March 3, [CDC issued Travel Health Notices](#) for the following locations:
 - [Level 3 Travel Health Notice \(avoid non-essential travel\): China, Iran, South Korea, and Italy](#)
 - [Level 2 Travel Health Notices \(Practice Enhanced Precautions\): Japan](#)
 - [Level 1 \(practice usual precautions\): Hong Kong](#)
- CDC also recommends that all travelers reconsider cruise ship voyages into or within Asia at this time.
 - This is consistent with [guidance by the U.S. State Department](#).
- The situation is rapidly evolving. CDC is constantly reviewing and updating its guidance as needed.

REPORTING

- [More public health laboratories are able to test for the virus that causes COVID-19, and they are reporting their results publicly.](#)
- [Because states are reporting publicly directly, sometimes in near real-time, CDC case counts may be different from what states, local authorities, or media are reporting.](#)
- [If there are discrepancies between case counts reported by state or local officials versus CDC reported numbers, the numbers provided by states will be the most up-to-date.](#)
- [State health laboratories are reporting their results to CDC.](#)
- [CDC is consolidating state reports and combining them with CDC confirmed test results and presenting a national aggregated case count daily from Monday through Friday.](#)
- [Case counts submitted to CDC by 4pm the prior day will be posted at noon.](#)
- [CDC is reporting cumulative confirmed and presumptive positive cases of COVID-19 in the United States since January 21, 2020.](#)
- [CDC is presenting data related to people who were repatriated via U.S. State Department flights from Wuhan, China and from the Diamond Princess cruise ship \(Japan\) in a separate chart available on the CDC website.](#)
- [CDC has discontinued reporting of the numbers of persons under investigation \(PUIs\) tested and those that tested negative.](#)
- [Now that states are testing and reporting their own results, CDC's numbers will not be representative of all the testing being done nationwide.](#)

MMWR UPDATE:

- On March 3, a *Morbidity and Mortality Weekly Report (MMWR)* Update was published titled [“Active Monitoring of Persons Exposed to Patients with Confirmed COVID-19 — United States, January–February 2020.”](#)
- This MMWR report summarizes the thorough steps that were taken during the early days of the COVID-19 response to track the country’s first the first 10 travel-related and the first 2 person-to-person (secondary from those travel-related cases) and their close contacts.
- CDC supported state/local public health officials as they tracked 445 close contacts of the first U.S. cases.

WHAT YOU CAN DO

- Everyone can do their part to help us respond to this emerging public health threat:
 - It’s currently flu and respiratory disease season and CDC recommends getting a flu vaccine, taking everyday preventive actions to help stop the spread of germs, and taking flu antivirals if prescribed.
 - [Individuals and communities should familiarize themselves with recommendations to protect themselves and their community from getting and spreading respiratory illnesses like coronavirus disease 2019.](#)
 - If you are a healthcare provider, be on the look-out for people who have been in close contact with a person known to have COVID-19, and [people who live in or have recently been in an area with ongoing spread, and have fever and respiratory symptoms.](#)
 - If you are a healthcare provider caring for a COVID-19 patient or a public health responder, please take care of yourself and follow [recommended infection control procedures.](#)
 - If you have recently been to an area with ongoing spread of COVID-19 or have been exposed to someone sick with COVID-19 in the last 14 days, you may face some limitations on your movement and activity. Please follow instructions during this time. Your cooperation is integral to the ongoing public health response to try to slow spread of this virus. If you develop COVID-19 symptoms, contact your healthcare provider, and tell them about your symptoms and your travel or exposure to a COVID-19 patient.
 - For people who have had close contact with someone with COVID-19 who develop symptoms, contact your healthcare provider, and tell them about your symptoms and your exposure to a COVID-19 patient.
 - For people who are ill with COVID-19, please follow [CDC guidance on how to reduce the risk of spreading your illness to others.](#)

CDC ACTIONS

- The federal government is working closely with state, local, tribal, and territorial partners, as well as public health partners, to respond to this public health threat.
- The public health response is multi-layered, with the goal of detecting and minimizing introductions of this virus in the United States to reduce the spread and the impact of this virus.

- CDC is operationalizing all of its pandemic preparedness and response plans, working on multiple fronts to meet these goals, including specific measures to prepare communities to respond local transmission of the virus that causes COVID-19.
- Pandemic guidance developed in anticipation of an influenza pandemic is being repurposed and adapted for a COVID-19 pandemic.
- Public health partners are encouraged to review their pandemic preparedness plans at this time.
- CDC is aggressively responding to the global outbreak of COVID-19 and preparing for the potential of community spread in the United States.
- **CDC's Action for Preparing Communities for Potential Spread of COVID-19 include:**
 - Preparing first responders, healthcare providers, and health systems
 - Reinforcing state, territorial, and local public health readiness
 - Supporting communities, businesses, and schools

COMMUNITY BASED INTERVENTIONS (AKA COMMUNITY MITIGATION)

- Americans should be prepared for the possibility of a COVID-19 outbreak in their community. Everyone has a role to play.
- Currently a vaccine is not available for COVID-19. Until a vaccine is developed, community-based interventions, such as school dismissals, event cancellations, social distancing, plans to work remotely can help slow the spread of coronavirus.
- Your local public health department and community partners have been preparing for an event, like COVID-19 and have plans in place. Now is a good time for businesses, community and faith-based organizations, schools, and health-care systems to reexamine their preparedness plans to make sure they are ready.
- Strong community partnerships between local health departments, the health care sector, faith-based organizations, and other community partners are vital for this response, and will be necessary to prepare for and coordinate if an outbreak occurs.
 - Community-based interventions can be grouped in three categories:
 - Personal protective measures (e.g., voluntary home isolation of ill persons, voluntary home quarantine of exposed household members, covering nose/mouth when coughing or sneezing, hand hygiene, using face masks in community settings when ill)
 - Community measures aimed at increasing social distancing (e.g., school dismissals, social distancing in workplaces, postponing or cancelling mass gatherings)
 - Environmental measures (e.g., routine cleaning of frequently touched surfaces)
- CDC has recommendations to protect yourself and your community from getting and spreading respiratory illnesses like coronavirus disease 2019.

For more information please visit the Coronavirus Disease 2019 Outbreak Page at:
www.cdc.gov/COVID19.

From: Bresee, Joseph (CDC/DDID/NCIRD/ID)
Sent: Monday, February 24, 2020 9:30 AM PST
To: Duchin, Jeff
CC: Lindquist, Scott SL (CDC doh.wa.gov); Cowgill, Karen; Kay, Meagan; Armstrong, Gregory (CDC/DDID/NCEZID/OD)
Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

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Thanks. I thought that we had a call today but see it is set for tomorrow at 4. Btw – am ccing Greg Armstrong on this as he will be joining the response and will have oversight on this work.
Joe

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Monday, February 24, 2020 10:50 AM
To: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>
Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Cowgill, Karen <nkcowgill@kingcounty.gov>; Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>
Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

Thanks, Joe. I do think it's a bit different and perhaps more challenging message with de-identified testing and limited follow-up. So far I've not been able to find a site willing to do identified but I'm hoping that will be possible, so having a positive and not being able to do more testing may be a problem. I've copied Scott because we'd need to know from WA DOH PHL what volume they could test for this purpose as well and when that is going to be available. As for SFS, they said they can't do identified testing but we're continuing to discuss to see if that can be modified via IRB-revision request. Do we have a call today? It's not in my calendar and I fly to Atlanta tomorrow, back FRI.

Sorry this is so complicated here.

Jeff

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From: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>
Sent: Monday, February 24, 2020 3:13 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Layton, Marci (CDC health.nyc.gov)

<mLAYTON@health.nyc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; PGounder@ph.lacounty.gov; Meredith Haddix <MHaddix@ph.lacounty.gov>; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Christine Mahle <cmahle@health.nyc.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Pathela, Preeti (CDC health.nyc.gov) <ppathela@health.nyc.gov>; Jessica Sell <jsell@health.nyc.gov>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Hector Rivas <hivas@ph.lacounty.gov>; Zahn, Matthew <MZahn@ochca.com>; DeWitt, Justin <Justin.Dewitt@Illinois.gov>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Lamb, Molly <Molly.Lamb@Illinois.gov>; Cowgill, Karen <n-kcowgill@kingcounty.gov>

Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

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Thanks, Jeff. Will get you the comms materials today to review and edit. I think that if we can agree that an early case identified would need a response (more surveillance to understand the scope of local circulation and case investigation to see if tied to a known case/exposure), we can also agree that limited testing capacity makes this challenging. It doesn't look like anyone will have enough testing capacity to open up testing in large cities to anyone who wants it, so was hoping that each site might identify a subset of sites or samples – based on flu surveillance perhaps - that can be tested, but which represents a larger subset than the initial 50/week and larger also in terms of area – but perhaps within expected number of test kits available – 200/week?

I was hoping that with SFS, you all might have a solution there.

Thanks for the comments and feedback. Talk later today
joe

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Sunday, February 23, 2020 10:29 PM

To: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; PGounder@ph.lacounty.gov; Meredith Haddix <MHaddix@ph.lacounty.gov>; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Christine Mahle <cmahle@health.nyc.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Pathela, Preeti (CDC health.nyc.gov) <ppathela@health.nyc.gov>; Jessica Sell <jsell@health.nyc.gov>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Hector Rivas <hivas@ph.lacounty.gov>; Zahn, Matthew <MZahn@ochca.com>; DeWitt, Justin <Justin.Dewitt@Illinois.gov>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Lamb, Molly <Molly.Lamb@Illinois.gov>; Cowgill, Karen <n-kcowgill@kingcounty.gov>

kcowgill@kingcounty.gov>

Subject: Re: COVID-19 sentinel surveillance DRAFT protocol

Thanks very much, Joe. I took a quick look and made a few comments. Unfortunately I'm the only one available to work on this here currently, although we were fortunate to be able to just have Karen Cowgill (who some of you may know from her CDC days) join us as surge part-time epi help for this project and I added her to the email recipients. The two main issues for us are the need for robust communication plan/messages for public and HCP in the event of a positive, with associated guidance/actions for public and HCP. In response to Gayle's question, we would need to review communication and guidance and vet to some degree locally before sending specimens. In addition, we will need to know more about how enhanced surveillance post-positive will work since we don't have a pre-existing system in place and don't have resources to do anything complicated. The idea of only testing from some clinics may not be acceptable to our community after a positive is detected (especially with de-identified), I anticipate allowing all clinics to send specimens that meet some criteria would be more acceptable if capacity to test allows that. This is such a gnarly problem without adequate testing capacity.

Thanks you and Gayle for putting this together, I hope it works out that we can participate. I'll be in Atlanta this week at ACIP and even slower than usual to respond to email.

Jeff

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Adjunct Professor, School of Public Health
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From: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>

Sent: Sunday, February 23, 2020 3:45 PM

To: Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; PGounder@ph.lacounty.gov <PGounder@ph.lacounty.gov>; Meredith Haddix <MHaddix@ph.lacounty.gov>; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Christine Mahle <cmahle@health.nyc.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Pathela, Preeti (CDC health.nyc.gov) <ppathela@health.nyc.gov>; Jessica Sell <jsell@health.nyc.gov>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Ghinai, Isaac

<Isaac.Ghinai@Illinois.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Zahn, Matthew <MZahn@ochca.com>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; DeWitt, Justin <Justin.Dewitt@Illinois.gov>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Lamb, Molly <Molly.Lamb@Illinois.gov>

Cc: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>

Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

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All, We had a few tasks following the last call. Wanted to report out on mine. (Gayle will share the latest protocol and the deidentified testing text, and updates on her progress over the weekend).

-Comms planning – Working with Comms group re two deliverables to share with you all – Q&As re the surveillance collaboration’s goals and structure (to have before the 1st case is identified and messages to have ready once the 1st case is identified. Hope to share these **tomorrow** for your input and use to create your own materials.

-Document that outlines what happens once the 1st case is identified – this is based on the transition document I shared a few days ago. Was envisioning a more operational plan, that augments the more conceptual plan I shared. Have attached a first stab at this. Will add a table to make simpler, but please edit and comment on this one. It ends at the 1st detections, and needs another step- triggers for transitioning more fully to community and health care mitigation from early case containment and control management. But this will be next

-Funds – working on this still to get clarity re timing. Assume that funding for surveillance and response to states will come, at least initially, through ELC Coags, and assume that section E will be used. Will keep you updated re steps and timing.

Finally, feel free to send stored, de-identified samples when you are ready. We are happy to receive and eager to get started!

Thanks
Joe

Joseph Bresee, MD
Dep. Incident Manager
2020 CDC nCoV Response

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 11:22 AM PST
To: Duchin, Jeff
CC: Kay, Meagan; Lindquist, Scott SL (CDC doh.wa.gov); Patel, Anita (CDC/DDID/NCIRD/OD)
Subject: FW: steps for HCFs
Attachments: steps hcf can take to prepare clean ICP_For clearance_emm.docx

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Hasn't completed clearance, but fyi

STEPS HEALTHCARE FACILITIES CAN TAKE NOW TO PREPARE FOR CORONAVIRUS DISEASE 2019 (COVID-19)

The true impact of a COVID-19 outbreak in the U.S. will not be known until it happens. However, all healthcare facilities can take steps now to prepare for such an outbreak and protect both their patients and staff.

Prepare:

- **Stay informed about the local COVID-19 situation.** Know where to turn for reliable, up-to-date information in your local community. Monitor the CDC COVID-19 [website](#) and your state and local health department [websites](#) for the latest information.
- **Develop, or review, your facility's emergency plan.** A COVID-19 outbreak in your community could lead to staff absenteeism. Prepare alternative staffing plans to ensure as many of your facility's staff are available as possible.
- **Establish relationships with key healthcare and public health partners in your community.** Make sure you know about healthcare and public health emergency planning and response activities in your community. Learn about plans to manage patients, accept transfers, and share supplies. Review any memoranda of understanding (MOUs) with affiliates, your healthcare coalition, and other partners to provide support or assistance during emergencies.
- **Create an emergency contact list.** Develop and continuously update emergency contact lists for key partners and ensure the lists are accessible in key locations in your facility. For example, know how to reach your local or state health department in an emergency.

Communicate:

- **Communicate about COVID-19 with your staff.** Share information about what is currently known about COVID-19, the potential for surge, and your facility's preparedness plans.
- **Communicate about COVID-19 with your patients.** Provide updates about changes to your policies regarding appointments, providing non-urgent patient care by telephone, and visitors. Consider using your facility's website or social media pages to share updates.

Protect your workforce:

- **Screen patients and visitors for symptoms of acute respiratory illness (e.g., fever, cough) before entering your healthcare facility.** Keep up to date on the recommendations for how to prevent spread on [CDC's website](#).
- **Ensure proper use of personal protection equipment (PPE).** Healthcare personnel who come in close contact with confirmed or possible patients with COVID-19 [should wear the appropriate personal protective equipment](#).
- **Conduct an inventory of available PPE.** Consider conducting an inventory of available PPE supplies. Explore strategies to optimize PPE supplies.
- **Encourage sick employees to stay home.** Personnel who develop respiratory symptoms (e.g., cough, shortness of breath) should be instructed not to report to work, or if they are at work, should stop patient care activities and notify their supervisor immediately. Ensure that your sick leave policies are flexible and consistent with public health guidance and that employees are aware of these policies.

Protect your patients:

- **Stay up-to-date** on the best ways to [manage patients with COVID-19](#).
- **Separate patients with respiratory symptoms so they are not waiting among other patients seeking care.** Identify a separate, well-ventilated space that allows waiting patients and visitors to be separated.
- **Consider the strategies to prevent patients who can be cared for at home from coming to your facility potentially exposing themselves or others to germs:**
 - Using your telephone system to deliver messages to incoming callers about when to seek medical care at your facility, when to seek emergency care, and where to go for information about caring for a person with COVID at home.
 - Adjusting your hours of operation to include telephone triage and follow-up of patients during a community outbreak.
 - Leveraging tele-medicine technologies and self-assessment tools.

From: Duchin, Jeff
Sent: Tuesday, March 3, 2020 9:18 PM PST
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Kay, Meagan
CC: Apa, James; Karasz, Hilary
Subject: Resource Request to CDC - NEed to Submit ASAP
Attachments: CDC RResource Request PHSKC_030320.docx

As per Dr. Redfield's request, please see my draft for additional assistance. Comments appreciated.

Jeff

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section

Public Health - Seattle and King County
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DRAFT: Urgent COVID-19 Resource Request

Additional human resources are needed to augment current outbreak response personnel that have been working excessive hours for weeks enabling them to recuperate between shifts and to help with massive workload of growing outbreak response activities. Key areas needing assistance:

- 1) Back up for core disease investigation, public health nurse and epidemiology team members and provide resources to meet demand for case investigation and contact tracing; assist with guidance development for healthcare providers and public.
 - a. NEED: 30 public health nurse or epidemiologist disease investigators
- 2) Team to assist healthcare facilities with assessment and management of exposed healthcare workers. Currently 11 healthcare facilities affected, more expected.
 - a. NEED: 4 FTE medical epidemiologist.
- 3) Communication specialists to assist with overwhelming demand for public information (create information sheets for patient and public, create and keep current guidance documents for healthcare providers, assist with on-site messaging to impacted schools and workplaces, back up Department Communications Team to allow them to recuperate between shifts.
 - a. NEED: 4 FTE communications specialist
- 4) Field team to provide on-site infection control assistance and training to long term care facilities, dialysis centers and outpatient clinics.
 - a. NEED: 6 FTE infection control specialists
- 5) Field teams to test patients and healthcare workers for COVID-19 (2-3 locations and/or outbreak venues)
 - a. NEED: 6 FTE clinically-trained staff
- 6) Laboratory support to assist with submission and tracking of results
 - a. NEED: 2 FTE
- 7) Team leaders/coordinators
 - a. NEED: 5 FTE

Total request: 57 FTE.

From: Lofy, Kathy H (DOH)
Sent: Tuesday, March 3, 2020 7:15 PM PST
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Duchin, Jeff; Wiesman, John (DOH); Lindquist, Scott W (DOH); Kay, Meagan
Subject: Case and Contact One-pagers
Attachments: Case One-pager 20200303.docx, Contact One-pager 20200303.docx

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Attached are the current drafts of the case and contact one pagers. I changed the case isolation period to 7 days per Jeff's text.

Let me know if you need help with adapting them for the school situation.

Kathy Lofy, MD

Gender Pronouns: she/her_

State Health Officer

Office of the Secretary

Washington State Department of Health

kathy.lofy@doh.wa.gov

360-236-4030 | www.doh.wa.gov



What to do if you were potentially exposed to someone with confirmed coronavirus disease 2019 (COVID-19)

If you think you have been exposed to someone with laboratory-confirmed COVID-19, follow the steps below to monitor your health and avoid spreading the disease to others if you get sick.

What is coronavirus disease 2019 (COVID-19)?

COVID-19 is a respiratory disease caused by a new virus called SARS-CoV-2. The most common symptoms of the disease are fever, cough, and shortness of breath. Most people with COVID-19 will have mild disease but some people will get sicker and may need to be hospitalized.

How do I know if I was exposed?

You generally need to be in close contact with a sick person to get infected. Close contact includes:

- Living in the same household as a sick person with COVID-19,
- Caring for a sick person with COVID-19
- Being within 6 feet of a sick person with COVID-19 for about 10 minutes, OR
- Being in direct contact with secretions from a sick person with COVID-19 (e.g., being coughed on, kissing, sharing utensils, etc.)

If you have not been in close contact with a sick person with COVID-19, you are considered to be at low risk for infection. You can continue to go to work and school, but should monitor your health for 14 days and stay away from others if you get sick.

What should I do if I am a close contact to someone with COVID-19 but am not sick?

You should monitor your health for fever, cough and shortness of breath during the 14 days after the last day you were in close contact with the sick person with COVID-19. You should also not go to work or school, and should avoid public places for 14 days.

What should I do if I am a close contact to someone with COVID-19 and get sick?

If you get sick with fever, cough or shortness of breath (even if your symptoms are very mild), you should stay at home and away from other people.

If you have any of the following high risk conditions—age 60 years or over, are pregnant, or have medical conditions—contact your physician’s office and tell them that you were exposed to someone with COVID-19. They may want to monitor your health more closely or test you for COVID-19.

If you do not have a high risk condition but want medical advice, you can call your healthcare provider and tell them that you were exposed to someone with COVID-19. Your healthcare provider can help you decide if you need to see a healthcare provider. There are currently no medications to treat COVID-19.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you may have been exposed to COVID-19. If possible, put on a facemask before emergency medical services arrive or immediately after they arrive.

What to do if you have coronavirus disease 2019 (COVID-19) or think you may have COVID-19

If you are sick with COVID-19 or have symptoms consistent with COVID-19, follow the steps below to help prevent the disease from spreading to people in your home and community.

Symptoms of COVID-19

The most common symptoms of COVID-19 are fever, cough and shortness of breath. If you are experiencing fever with either cough or shortness of breath, you might have COVID-19. You can contact your doctor to see if you need to be tested. If you cannot be tested or if you have tested positive for COVID-19, you should follow the below instructions.

Stay home except to get medical care

You should restrict activities outside your home, except for getting medical care. Do not go to work, school, or public areas. Avoid using public transportation, ride-sharing, or taxis.

Separate yourself from other people and animals in your home

People: As much as possible, you should stay in a specific room and away from other people in your home. Also, you should use a separate bathroom, if available.

Animals: Do not handle pets or other animals while sick. See [COVID-19 and Animals](#) for more information.

Call ahead before visiting your doctor

If you have a medical appointment, call the healthcare provider and tell them that you have or may have COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed.

Wear a facemask

You should wear a facemask when you are around other people (e.g., sharing a room or vehicle) or pets and before you enter a healthcare provider's office. If you are not able to wear a facemask (for example, because it causes trouble breathing), then people who live with you should not stay in the same room with you, or they should wear a facemask if they enter your room.

Cover your coughs and sneezes

Cover your mouth and nose with a tissue when you cough or sneeze. Throw used tissues in a lined trash can; immediately wash your hands with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60 to 95% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty.

Avoid sharing personal household items

You should not share dishes, drinking glasses, cups, eating utensils, towels, or bedding with other people or pets in your home. After using these items, they should be washed thoroughly with soap and water.

Clean your hands often

Wash your hands often with soap and water for at least 20 seconds. If soap and water are not available, clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty. Avoid touching your eyes, nose, and mouth with unwashed hands.

Clean all “high-touch” surfaces every day

High touch surfaces include counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables. Also, clean any surfaces that may have blood, stool, or body fluids on them. Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.

Monitor your symptoms

Seek prompt medical attention if your illness is worsening (e.g., difficulty breathing). **Before** seeking care, call your healthcare provider and tell them that you have, or are being evaluated for, COVID-19. Put on a facemask before you enter the facility. These steps will help the healthcare provider’s office to keep other people in the office or waiting room from getting infected or exposed.

Ask your healthcare provider to call the local or state health department. Persons who are placed under active monitoring or facilitated self-monitoring should follow instructions provided by their local health department or occupational health professionals, as appropriate.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive.

Discontinuing home isolation

If you have tested positive for COVID-19, you should remain under home isolation precautions for 7 days **OR** 72 hours after resolution of fever and symptoms, **whichever is longer**. You may be infectious to others for longer than this time period so you should wash your hands frequently and cover your coughs and sneezes for at least two more weeks after discontinuing home isolation.

If you have fever with cough or shortness of breath but have not been confirmed to have COVID-19, you should stay home away from others until 72 hours after resolution of fever and improvement of symptoms.

Additional information for your household members, intimate partners, and caregivers is available at:
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html>

From: Trevor Bedford
Sent: Wednesday, March 4, 2020 2:10 PM PST
To: Duchin, Jeff; Lindquist, Scott W (DOH); Armstrong, Gregory (CDC/DDID/NCEZID/OD); Cowgill, Karen; zha6@cdc.gov
CC: Helen Y Chu; Mike Famulare; Jay Shendure; Mark J Rieder; Englund, Janet
Subject: Results from first four WA SARS-CoV-2 genomes

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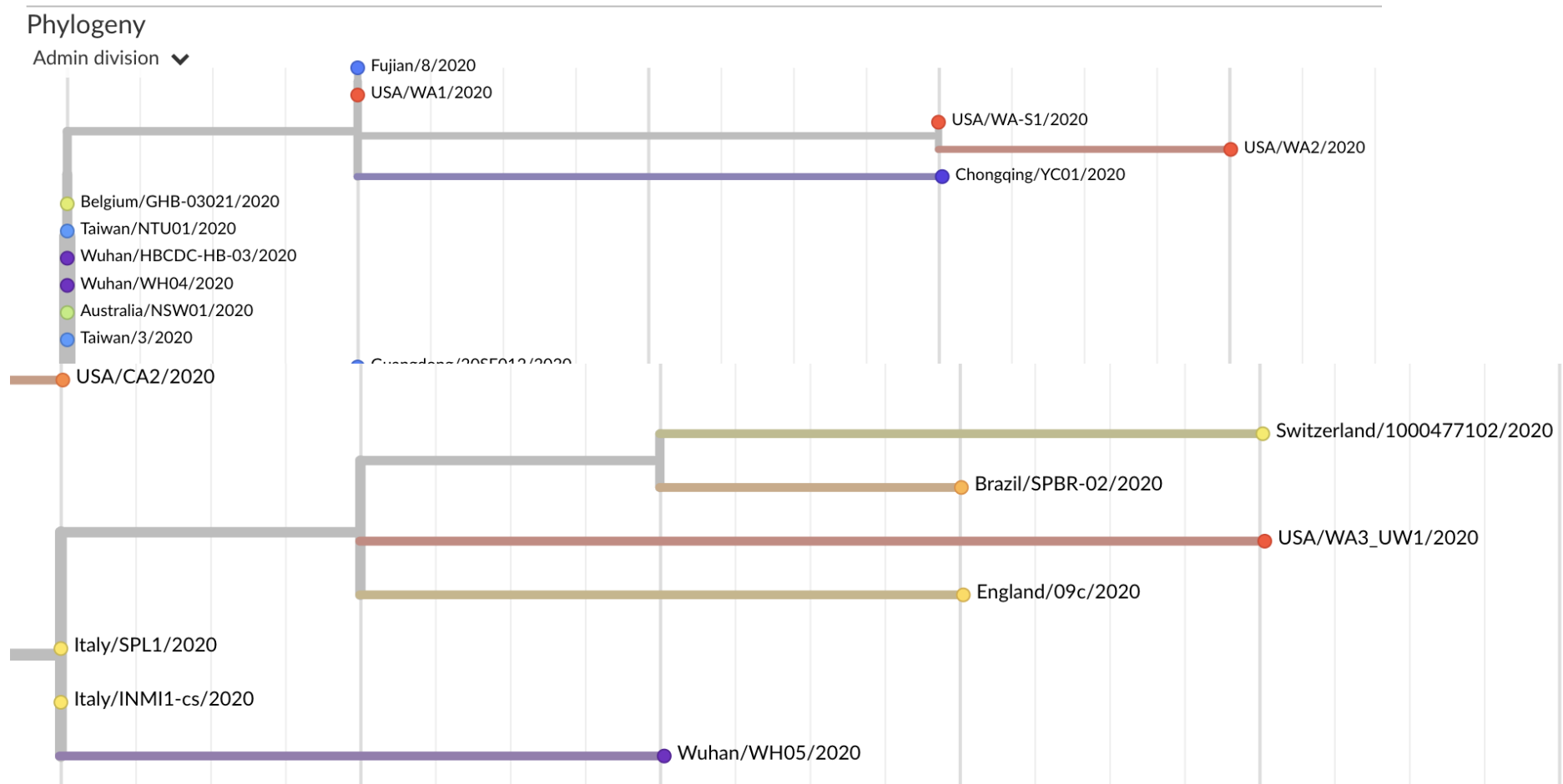
Hi all,

We just had another genome come off the sequencer. I'm provisionally calling this WA-S2.

This brings us to:

- WA1 --- Jan 19, first case in Everett (sequenced by CDC)
- WA2 --- Feb 24, Snohomish County
- WA3_UW1 --- Feb 27 Seattle (sequenced by UW Virology)
- WA-S2 --- Feb 20 Seattle

We see that WA1, WA2 and WA-S2 all fall into the same cluster. This is the one we think has been circulating since mid-Jan. WA3_UW1 is a separate, possibly recent introduction.



Given that these three fall into the same cluster, we still estimate that this cluster has resulted in ~600 infections circulating at this moment. It's hard to say how big of a transmission chain WA3_UW1 is part of.

This genome came from a metagenomics run, the other three failed in this run. These were run in parallel in hybrid capture and should be finished tomorrow I believe.

Please feel free to forward this within public health as you see fit.

I would like to make a public announcement of this genome result alongside broad denominator data (we tested ~1000 specimens and found 5 positives in our research assay) this evening. I will plan to preview this announcement with the group.

- Trevor

From: Helen Y Chu
Sent: Wednesday, March 4, 2020 2:22 PM PST
To: Lindquist, Scott W (DOH); Trevor Bedford
CC: Duchin, Jeff; Armstrong, Gregory (CDC/DDID/NCEZID/OD); Cowgill, Karen; zha6@cdc.gov; Mike Famulare; Jay Shendure; Mark Rieder; Englund, Janet
Subject: Re: Results from first four WA SARS-CoV-2 genomes

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Adding Lea Starita onto this email chain as her lab runs the samples.

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From: Lindquist, Scott W (DOH) <scott.lindquist@doh.wa.gov>
Sent: Wednesday, March 4, 2020 2:16:25 PM
To: Trevor Bedford <trevor@bedford.io>
Cc: Duchin, Jeffery, MD (DOHi) <jeff.duchin@kingcounty.gov>; Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; n-kcowgill@kingcounty.gov <n-kcowgill@kingcounty.gov>; zha6@cdc.gov <zha6@cdc.gov>; Helen Y Chu <helenchu@uw.edu>; Mike Famulare <mfamulare@idmod.org>; Jay Shendure <shendure@gmail.com>; Mark Rieder <mrieder@uw.edu>; Englund, Janet <janet.englund@seattlechildrens.org>
Subject: Re: Results from first four WA SARS-CoV-2 genomes

Great to review with the available EPI as it can inform the findings. One of these was a traveler from South Korea and though diagnosed here may not relate to any transmission only location of testing. I talked to PHL about providing aliquots of RNA on positives going forward. Trevor call me to discuss.

Scott 206-718-2664

> On Mar 4, 2020, at 2:10 PM, Trevor Bedford <trevor@bedford.io> wrote:
>
> Hi all,
>
> We just had another genome come off the sequencer. I'm provisionally calling this WA-S2.
>
> This brings us to:
> - WA1 --- Jan 19, first case in Everett (sequenced by CDC)
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>
> We see that WA1, WA2 and WA-S2 all fall into the same cluster. This is the one we think has been circulating since mid-Jan. WA3_UW1 is a separate, possibly recent introduction.
>
> <wa-s1.png>
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>
>

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>
>
> Given that these three fall into the same cluster, we still estimate that this cluster has resulted in ~600 infections circulating at this moment.
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> It's hard to say how big of a transmission chain WA3_UW1 is part of.
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> This genome came from a metagenomics run, the other three failed in this run. These were run in parallel in hybrid capture and should be finished tomorrow I believe.
>
> Please feel free to forward this within public health as you see fit.
>
> I would like to make a public announcement of this genome result alongside broad denominator data (we tested ~1000 specimens and found 5 positives in our research assay) this evening. I will plan to preview this announcement with the group.
>
> - Trevor

From: Bresee, Joseph (CDC/DDID/NCIRD/ID)
Sent: Monday, February 24, 2020 3:12 AM PST
To: Duchin, Jeff; Park, Sarah Y., MD; Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Layton, Marci (CDC health.nyc.gov); Layden, Jennifer (CDC illinois.gov); Lindquist, Scott SL (CDC doh.wa.gov); Jain, Seema (CDC cdph.ca.gov); Weiss, Don (CDC health.nyc.gov); Balter, Sharon (CDC ph.lacounty.gov); PGounder@ph.lacounty.gov; Meredith Haddix; Rakeman, Jennifer JR (CDC health.nyc.gov); Christine Mahle; Kauerauf, Judy (CDC illinois.gov); Green, Nicole (CDC ph.lacounty.gov); Pathela, Preeti (CDC health.nyc.gov); Jessica Sell; Conover, Craig (CDC illinois.gov); Ghinai, Isaac; Hector Rivas; Zahn, Matthew; DeWitt, Justin; Thomas-Smith, Evonda; Lamb, Molly; Cowgill, Karen
Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

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Thanks, Jeff. Will get you the comms materials today to review and edit. I think that if we can agree that an early case identified would need a response (more surveillance to understand the scope of local circulation and case investigation to see if tied to a known case/exposure), we can also agree that limited testing capacity makes this challenging. It doesn't look like anyone will have enough testing capacity to open up testing in large cities to anyone who wants it, so was hoping that each site might identify a subset of sites or samples – based on flu surveillance perhaps - that can be tested, but which represents a larger subset than the initial 50/week and larger also in terms of area – but perhaps within expected number of test kits available – 200/week?

I was hoping that with SFS, you all might have a solution there.

Thanks for the comments and feedback. Talk later today
joe

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Sunday, February 23, 2020 10:29 PM
To: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; PGounder@ph.lacounty.gov; Meredith Haddix <MHaddix@ph.lacounty.gov>; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Christine Mahle <cmahle@health.nyc.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Pathela, Preeti (CDC health.nyc.gov) <ppathela@health.nyc.gov>; Jessica Sell <jsell@health.nyc.gov>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Zahn, Matthew <MZahn@ochca.com>; DeWitt, Justin <Justin.Dewitt@Illinois.gov>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Lamb, Molly <Molly.Lamb@Illinois.gov>; Cowgill, Karen <nkcowgill@kingcounty.gov>
Subject: Re: COVID-19 sentinel surveillance DRAFT protocol

Thanks very much, Joe. I took a quick look and made a few comments. Unfortunately I'm the only one available to work on this here currently, although we were fortunate to be able to just have Karen Cowgill (who some of you may know from her CDC days) join us as surge part-time epi help for this project and I added her to the email recipients. The two main issues for us are the need for robust communication plan/messages for public and HCP in the event of a positive, with associated guidance/actions for public and HCP. In response to Gayle's question, we would need to review communication and guidance and vet to some degree locally before sending specimens. In addition, we will need to know more about how enhanced surveillance post-positive will work since we don't have a pre-existing system in place and don't have resources to do anything complicated. The idea of only testing from some clinics may not be acceptable to our community after a positive is detected (especially with de-identified), I anticipate allowing all clinics to send specimens that meet some criteria would be more acceptable if capacity to test allows that. This is such a gnarly problem without adequate testing capacity.

Thanks you and Gayle for putting this together, I hope it works out that we can participate. I'll be in Atlanta this week at ACIP and even slower than usual to respond to email.

Jeff

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
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Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>

Sent: Sunday, February 23, 2020 3:45 PM

To: Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; PGounder@ph.lacounty.gov <PGounder@ph.lacounty.gov>; Meredith Haddix <MHaddix@ph.lacounty.gov>; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Christine Mahle <cmahle@health.nyc.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Pathela, Preeti (CDC health.nyc.gov) <ppathela@health.nyc.gov>; Jessica Sell <jsell@health.nyc.gov>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Zahn, Matthew <MZahn@ochca.com>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; DeWitt, Justin <Justin.Dewitt@Illinois.gov>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Lamb, Molly

<Molly.Lamb@Illinois.gov>

Cc: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>

Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

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All, We had a few tasks following the last call. Wanted to report out on mine. (Gayle will share the latest protocol and the deidentified testing text, and updates on her progress over the weekend).

-Comms planning – Working with Comms group re two deliverables to share with you all – Q&As re the surveillance collaboration’s goals and structure (to have before the 1st case is identified and messages to have ready once the 1st case is identified. Hope to share these **tomorrow** for your input and use to create your own materials.

-Document that outlines what happens once the 1st case is identified – this is based on the transition document I shared a few days ago. Was envisioning a more operational plan, that augments the more conceptual plan I shared. Have attached a first stab at this. Will add a table to make simpler, but please edit and comment on this one. It ends at the 1st detections, and needs another step- triggers for transitioning more fully to community and health care mitigation from early case containment and control management. But this will be next

-Funds – working on this still to get clarity re timing. Assume that funding for surveillance and response to states will come, at least initially, through ELC Coags, and assume that section E will be used. Will keep you updated re steps and timing.

Finally, feel free to send stored, de-identified samples when you are ready. We are happy to receive and eager to get started!

Thanks
Joe

Joseph Bresee, MD
Dep. Incident Manager
2020 CDC nCoV Response

From: Trevor Bedford
Sent: Saturday, February 29, 2020 7:38 PM PST
To: Duchin, Jeff
CC: Armstrong, Gregory (CDC/DDID/NCEZID/OD); Lindquist, Scott SL (CDC doh.wa.gov); Mike Famulare
Subject: Re: Urgent: Genome sequence from Snohomish County case

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Yes, please. That would most welcome. We're aiming to have methods as open as possible. We can be in touch tomorrow with an initial draft (cc'ing Mike here).

- Trevor

On Feb 29, 2020, at 7:32 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

That's awesome. I hope you wouldn't be insulted by this suggestion but if we're going to make sure the weighty decisions based on this at least in part, would you be open to having some outsiders review the methods and the findings?

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 7:31:09 PM

To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>

Subject: Re: Urgent: Genome sequence from Snohomish County case

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Hi Jeff,

We'll be sequencing any additional cases as quickly as possible. I'm assuming that the cases announced today are currently being processed by CDC. Based on the 2 sequenced genomes, the time frame, and finding 1 positive out of ~400 samples we sequenced we are currently estimating a median of 500 infections in Seattle area. Mike Famulare is working on this analysis and we hope to have something more to share tomorrow.

- Trevor

On Feb 29, 2020, at 7:24 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

Trevor, thanks for sharing this information and for doing this incredible work. I'm not very sophisticated with respect to interpreting the data your share but I get the basic picture. One thing I'm wondering is whether you'll be looking at additional strains from Washington? We would love any additional data that can help us understand the transmission dynamics in the community with respect to potential Independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observe mutations to the car. All of this relates to independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observe mutations to occur. All of this relates to triggers for pivoting our approach from case and contact centered to community-based Measures.

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
[E-mail: jeff.duchin@kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)
From: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>
Sent: Saturday, February 29, 2020 6:40:55 PM
To: Trevor Bedford <trevor@bedford.io>
Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

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That makes perfect sense. A logical way of looking at it.
Gregory L. Armstrong MD | garmstrong@cdc.gov
From: Trevor Bedford <trevor@bedford.io>
Sent: Saturday, February 29, 2020 9:36:14 PM
To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>
Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

Hi Greg,
These are very astute points. And perhaps "firmly suggest" may have been too strong. I'll try to put better probabilities here. I think the key probability is likelihood of sampling 18060T twice in Snohomish. 18060T is present in the Fujian sample and the Chongqing sample. This is 2/59 samples in China with this variant (https://nextstrain.org/ncov?c=gt-nuc_18060&f_country=China). If I had to put a p value on this, I'd say 2/59 = 0.03.

To me, this is significant and I would favor the hypothesis of endemic circulation. If the second case had been farther away than 10 miles, I might be more skeptical.

- Trevor

On Feb 29, 2020, at 6:18 PM, Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov> wrote:

I'm not sure what convention the lab is using for naming the specimens, but maybe put "(interim identifier)" after it (or something like that).

Some skepticism here, which you should please poke holes in:

- There is often some understated uncertainty when dealing with phylogenetic trees based on a small proportion of the total population of pathogens (i.e., the total number of cases)
- Fujian/8/2020 is identical to WA1, suggesting that this sequence was circulating in China (in Fujian, anyway) and was common enough that it ended up in this relatively small sample. It was probably not the most common clade there, but definitely not rare.
- WA2 is a direct descendant of this clade (i.e., the clade including Fujian/8 and WA1)
- The most parsimonious explanation here is that the virus was circulating in China, was imported as WA1, went through several rounds of transmission in the Seattle area, and was detected (with additional mutations) as WA2
- Another explanation--less parsimonious, but also plausible--is that Fujian/8 and WA1 are from a clade that was circulating in China. It was imported the first time as WA1. It was imported again several weeks later as WA2 (after picking up some more mutations).

So, a skeptic would say that the first hypothesis (the WA1 wasn't contained and has been spreading in the Seattle area) is the most parsimonious, but the second hypothesis (that they were imported separately) is plausible enough that we can accept the first hypothesis based solely on the phylogenetic data.



From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 8:58 PM

To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>

Subject: Urgent: Genome sequence from Snohomish County case

(Can you please forward to Chris Spitters, I don't have his email address on hand)

Hi Greg, Scott and Jeff,

30 minutes ago we got the genome sequence off the machine and we got this assembled and a phylogeny run.

The results firmly suggest transmission in Washington from WA1 to this this current case, which I'm calling WA2. See attached figure. I believe there has been transmission in the Snohomish Area since the arrival of the first case. This can't tell us the route, but is strongly indicative (alongside location proximity).

Happy to address questions. I'll be getting this up on GISAID tonight.

Greg: Is it okay to name this USA/WA2/2020, with the expectation that the CDC will name it the same thing when they've done their sequencing (good to have the same strain name so there's not confusion).

- Trevor

<wa2.png>

From: Armstrong, Gregory (CDC/DDID/NCEZID/OD)
Sent: Tuesday, March 3, 2020 3:54 AM PST
To: Trevor Bedford; Lindquist, Scott SL (CDC doh.wa.gov); Duchin, Jeff; Cowgill, Karen; Schrag, Stephanie (CDC/DDID/NCIRD/DBD)
CC: Shendure, Jay; Englund, Janet; Helen Y Chu; Mike Famulare
Subject: RE: COVID19 surveillance results

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Interesting. Would it be possible to do the same for the 2 weeks before that?

Gregory Armstrong, MD | currently assigned to CDC Coronavirus Response as Deputy Incident Manager | garmstrong@cdc.gov

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

From: Trevor Bedford <trevor@bedford.io>
Sent: Tuesday, March 3, 2020 1:25 AM
To: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; n-kcowgill@kingcounty.gov; Schrag, Stephanie (CDC/DDID/NCIRD/DBD) <zha6@cdc.gov>; Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>
Cc: Shendure, Jay <shendure@uw.edu>; Englund, Janet <janet.englund@seattlechildrens.org>; Helen Y Chu <helenchu@uw.edu>; Mike Famulare <mfamulare@idmod.org>
Subject: COVID19 surveillance results

Hi all,

We started up testing again today of deidentified samples. We tested 380 samples today that had been collected in the past two weeks. We found 4 COVID19+ results out of these 380 samples. We are looking into county and jittered date of sample collection information for these 4 and will have this in the morning.

Mike is revising his incidence modeling estimates based on these new results. These 4 positive samples have been moved forward for sequencing and should be available tomorrow or Wed.

- Trevor

From: Trevor Bedford
Sent: Saturday, February 29, 2020 7:53 PM PST
To: Duchin, Jeff
CC: Armstrong, Gregory (CDC/DDID/NCEZID/OD); Lindquist, Scott SL (CDC doh.wa.gov); Mike Famulare
Subject: Re: Urgent: Genome sequence from Snohomish County case

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Greg: I've just submitted as "USA/WA2/2020(provisional)" and can update to "USA/WA2/2020" or otherwise to align with CDC strain numbering.

- Trevor

On Feb 29, 2020, at 7:38 PM, Trevor Bedford <trevor@bedford.io> wrote:

Yes, please. That would most welcome. We're aiming to have methods as open as possible. We can be in touch tomorrow with an initial draft (cc'ing Mike here).

- Trevor

On Feb 29, 2020, at 7:32 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

That's awesome. I hope you wouldn't be insulted by this suggestion but if we're going to make sure the weighty decisions based on this at least in part, would you be open to having some outsiders review the methods and the findings?

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
[E-mail: jeff.duchin@kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)

From: Trevor Bedford <trevor@bedford.io>
Sent: Saturday, February 29, 2020 7:31:09 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff,

We'll be sequencing any additional cases as quickly as possible. I'm assuming that the cases announced today are currently being processed by CDC. Based on the 2 sequenced genomes, the time frame, and finding 1 positive out of ~400 samples we sequenced we are currently estimating a median of 500 infections in Seattle area. Mike Famulare is working on this analysis and we hope to have something more to share tomorrow.

- Trevor

On Feb 29, 2020, at 7:24 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

Trevor, thanks for sharing this information and for doing this incredible work. I'm not very sophisticated with respect to interpreting the data you share but I get the basic picture. One thing I'm wondering is whether you'll be looking at additional strains from Washington? We would love any additional data that can help us understand the transmission dynamics in the community with respect to potential Independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observed mutations to the case. All of this relates to independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observed mutations to occur. All of this relates to triggers for pivoting our approach from case and contact centered to community-based Measures.

Jeffrey S. Duchin, MD

Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section

Public Health - Seattle and King County

Professor in Medicine, Division of Infectious Diseases, University of Washington

Adjunct Professor, School of Public Health

401 5th Ave, Suite 1250, Seattle, WA 98104

Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803

E-mail: jeff.duchin@kingcounty.gov

From: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>

Sent: Saturday, February 29, 2020 6:40:55 PM

To: Trevor Bedford <trevor@bedford.io>

Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Subject: Re: Urgent: Genome sequence from Snohomish County case

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That makes perfect sense. A logical way of looking at it.

Gregory L. Armstrong MD | garmstrong@cdc.gov

From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 9:36:14 PM

To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>

Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC

[kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)) <jeff.duchin@kingcounty.gov>

Subject: Re: Urgent: Genome sequence from Snohomish County case

Hi Greg,

These are very astute points. And perhaps "firmly suggest" may have been too strong. I'll try to put better probabilities here. I think the key probability is likelihood of sampling 18060T twice in Snohomish. 18060T is present in the Fujian sample and the Chongqing sample. This is 2/59 samples in China with this variant

(https://nextstrain.org/ncov?c=gt-nuc_18060&f_country=China). If I had to put a p value on this, I'd say $2/59 = 0.03$.

To me, this is significant and I would favor the hypothesis of endemic circulation. If the second case had been farther away than 10 miles, I might be more skeptical.

- Trevor

On Feb 29, 2020, at 6:18 PM, Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov> wrote:

I'm not sure what convention the lab is using for naming the specimens, but maybe put "(interim identifier)" after it (or something like that).

Some skepticism here, which you should please poke holes in:

- There is often some understated uncertainty when dealing with phylogenetic trees based on a small proportion of the total population of pathogens (i.e., the total number of cases)
- Fujian/8/2020 is identical to WA1, suggesting that this sequence was circulating in China (in Fujian, anyway) and was common enough that it ended up in this relatively small sample. It was probably not the most common clade there, but definitely not rare.
- WA2 is a direct descendant of this clade (i.e., the clade including Fujian/8 and WA1)
- The most parsimonious explanation here is that the virus was circulating in China, was imported as WA1, went through several rounds of transmission in the Seattle area, and was detected (with additional mutations) as WA2
- Another explanation--less parsimonious, but also plausible--is that Fujian/8 and WA1 are from a clade that was circulating in China. It was imported the first time as WA1. It was imported again several weeks later as WA2 (after picking up some more mutations).

So, a skeptic would say that the first hypothesis (the WA1 wasn't contained and has been spreading in the Seattle area) is the most parsimonious, but the second hypothesis (that they were imported separately) is plausible enough that we can accept the first hypothesis based solely on the phylogenetic data.



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- Trevor

<wa2.png>

From: Robin A Prentice
Sent: Friday, February 21, 2020 9:30 AM PST
To: Trevor Bedford; Boeckh, Michael; Helen Y Chu; Duchin, Jeff; Englund, Janet; Mike Famulare; ffa0@cdc.gov; michael.l.jackson@kp.org; Barry R. Lutz; Debbie Nickerson; Lea Starita; Jay A. Shendure; Matthew J. Thompson; Adam@formativeco.com; Jen Mooney; jonathan@formativeco.com; Jaclyn Ruckle; Maggie Van de Loo
CC: Mark Rieder
Subject: SFS Investigator meeting 2/20 Minutes
Attachments: Minutes_SFS-InvestigatorMeeting-20Feb2020.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hello Investigators,

Attached are the notes from yesterday's Investigator meeting.

Thanks,
Robin

SFS Bi-weekly Investigator Meeting

Agenda - 20 February 2020 (8:30 - 10 AM)

Location: N-503 - Foege North

Invited Attendees:

Trevor Bedford (FH)	Reena Gulati (CDC)	Lea Starita (UW)
Michael Boeckh (FH)	Mike Jackson (KP)	Jay Shendure (UW/BBI)
Helen Chu (UW)	Barry Lutz (UW)	Matthew Thompson (UW)
Jeff Duchin (PHSKC)	Debbie Nickerson (UW)	Jen Mooney/Jonathon Rosoff/Jaclyn/Maggie (FORM)
Janet Englund (SCH)	Robin Prentice (UW/BBI)	Louise Kimball
Mike Famulare (IDM)	Mark Rieder (UW/BBI)	

(present / not present)

Action Items:

Action Item	Assignment	Due Date
Draft message to Jeff D, Scott L, Alicia F and Gayle L to inform of SFS plans to test samples (done)	Helen	2/20
Provide availability for presenting at Science meeting (spreadsheet)	Michael, Barry, Matthew	2/25
Review the Snowpocalypse manuscript and double check the author list	Investigators	2/27
Update Yr2 staff author list (pg 5) for future publications	Investigators	

Agenda

1. Focused, Strategic or Tactical discussions
 - a. 2019-nCoV update
 - i. DOH/PHSKC/CDC testing criteria/SFS collaboration update (Helen, Jeff, others)
Jeff D clarified that any samples to be sent on to a CDC lab for testing must be sampled using a nasopharyngeal (NP) swab (only trained professionals can do the sampling with special masking) and that nasal swabs such as those used for SFS cannot be used. Even most hospital samples are not collected using a NP swab. Jeff Duchin has been trying to advocate for us but without success. Helen will draft an email to CDC, PHSKC and DOH regarding plans for SFS next

steps.

- ii. Further recruitment outreach to travelers (GV request)
Formative launched a targeted marketing campaign on 2/20 to recruit travelers. They are also working with AdTheorant, a machine learning marketing company, to more specifically target travelers.
- iii. Media requests on COVID-19
All media inquiries must be directed to Formative (media@seattleflu.org).
- iv. Trevor/Mike - modeling update
MF: Japan has local transmission now, probably Hong Kong and Singapore as well. Two deaths have occurred in Iran and 3 more cases are identified there. Mike's Open Science report (meant to be small but got circulated widely): For China based estimates, the infection fatality rate is ~1% (which is within estimates of the 1918 flu). That outcome is sensitive to age distribution and co-morbidities (U.S. age distribution worse than China and co-morbidities is better). Severity stats: the initial (and very preliminary) international fatality rates are 0.3-0.5%, which is higher than flu. Chloroquine shows some *in vitro* evidence of positive effects. Remsivdir needs to be administered intravenously and is thus not scalable.

b. SFS update

- i. Cepheid testing at kiosks active - however the Seattle Municipal Tower kiosk was canceled as they now plan to launch a campaign focused on non-pharmaceutical interventions for Coronavirus instead (by 2/25) and do not want SMT staff or visitors to be confused by parallel flu activities taking place in the building.
- ii. Self-test active (2/19/20) IRB was approved 2/19 and was rolled out the same afternoon. The self-test samples (where a reference sample is sent to the lab) will need the Taqman panel and the Cepheid re-confirmatory testing done in the lab.
- iii. Asymptomatic testing will launch on 2/24. Lab testing will require the Taqman panel but NO Cepheid re-confirmatory testing.
- iv. Recruitment Demographics
Mike reviewed how to interpret the weekly demographic reports
These are posted weekly to Google drive ([Link](#)). Formative can easily re-focus marketing efforts by zip code. But it is more challenging to focus certain types of ads on certain types of people (and also cuts down on the number of folks viewing a certain ad).

Jan - Can broad categories of age be represented? <18, 18-60, >60?
Mike currently is not showing age as it is not a demographic but rather a epidemiological stat.

2. Reporting/Meeting [Schedule](#) (Deadlines - see table below)

- a. Feb 7 Advisory Committee meeting draft
 - i. Currently no follow-up items (stay tuned)
Yr 2 Q1 Financial report - requests sent - reports due 2/21
- b. GV Monthly - 2/28
 - i. Minimal prep anticipated
 - ii. Topics: Metrics, Yr 3, SARS COV-2 response, Year 3 plans

3. Other Items/Issues/Blockers

- a. Other Issues
 - i. Extending Science meeting series. We need to extend science meetings into the spring. Investigators are asked to provide their availability in this [spreadsheet](#) if they haven't already done so.
 - ii. Investigator meeting: will remain in Foege North room 503 through July.
 - iii. Publishing [guidelines](#)/author list
Mike report that he made a more broad Yr1 author list and then added a statement referencing all Investigators "on behalf of the Investigators...." In the consortium guidelines (link see above) he also added a placeholder for Year 2 authorship guidelines, where PIs should update their staff author list for future publications.
 - iv. Metrics recruitment [review](#) (not reviewed)
 - v. DTUA [requests](#) (not discussed)
 - vi. Snowpocalypse Manuscript [posted](#) (Mike)
Mike reported that as the Snowpocalypse [paper](#) is nearly ready to submit. He would like to post the paper in BioArchive by next Friday 2/28. Investigators please review the manuscript and double check the author list.

Reporting/Meeting	Format	Due Date	Attendees
Yr2 Q1 Financial Report - submit to GV	Report	25-Feb	Investigators Admins Robin/Mark
Science Meeting	In-person/tcon	27-Feb	Lutz, Thompson presenting Location UW Foege- 130A

GV Monthly Meeting Brainstorming, no slides should be needed	In-person/tcon	28-Feb	Investigators
Science Meeting	In-person/tcon	12-Mar	Starita, Nickerson presenting Location UW TBD
Slides due - GV Monthly meeting slides	Slides	TBD	Investigators
GV Monthly meeting	In-person/tcon	19-Mar	Investigators

From: Duchin, Jeff
Sent: Sunday, February 23, 2020 7:28 PM PST
To: Bresee, Joseph (CDC/DDID/NCIRD/ID); Park, Sarah Y., MD; Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Layton, Marci (CDC health.nyc.gov); Layden, Jennifer (CDC illinois.gov); Lindquist, Scott SL (CDC doh.wa.gov); Jain, Seema (CDC cdph.ca.gov); Weiss, Don (CDC health.nyc.gov); Balter, Sharon (CDC ph.lacounty.gov); PGounder@ph.lacounty.gov; Meredith Haddix; Rakeman, Jennifer JR (CDC health.nyc.gov); Christine Mahle; Kauerauf, Judy (CDC illinois.gov); Green, Nicole (CDC ph.lacounty.gov); Pathela, Preeti (CDC health.nyc.gov); Jessica Sell; Conover, Craig (CDC illinois.gov); Ghinai, Isaac; Hector Rivas; Zahn, Matthew; DeWitt, Justin; Thomas-Smith, Evonda; Lamb, Molly; Cowgill, Karen
BCC: Kay, Meagan; Apa, James; Worsham, Dennis
Subject: Re: COVID-19 sentinel surveillance DRAFT protocol
Attachments: Community surveillance site guidance for what to do with first case detection_JD.docx

Thanks very much, Joe. I took a quick look and made a few comments. Unfortunately I'm the only one available to work on this here currently, although we were fortunate to be able to just have Karen Cowgill (who some of you may know from her CDC days) join us as surge part-time epi help for this project and I added her to the email recipients. The two main issues for us are the need for robust communication plan/messages for public and HCP in the event of a positive, with associated guidance/actions for public and HCP. In response to Gayle's question, we would need to review communication and guidance and vet to some degree locally before sending specimens. In addition, we will need to know more about how enhanced surveillance post-positive will work since we don't have a pre-existing system in place and don't have resources to do anything complicated. The idea of only testing from some clinics may not be acceptable to our community after a positive is detected (especially with de-identified), I anticipate allowing all clinics to send specimens that meet some criteria would be more acceptable if capacity to test allows that. This is such a gnarly problem without adequate testing capacity.

Thanks you and Gayle for putting this together, I hope it works out that we can participate. I'll be in Atlanta this week at ACIP and even slower than usual to respond to email.

Jeff

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section

Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>

Sent: Sunday, February 23, 2020 3:45 PM

To: Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <m Layton@health.nyc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; PGounder@ph.lacounty.gov <PGounder@ph.lacounty.gov>; Meredith Haddix <MHaddix@ph.lacounty.gov>; Rakeman, Jennifer JR (CDC health.nyc.gov)

<jrakeman@health.nyc.gov>; Christine Mahle <cmahle@health.nyc.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Pathela, Preeti (CDC health.nyc.gov) <ppathela@health.nyc.gov>; Jessica Sell <jsell@health.nyc.gov>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Zahn, Matthew <MZahn@ochca.com>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; DeWitt, Justin <Justin.Dewitt@Illinois.gov>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Lamb, Molly <Molly.Lamb@Illinois.gov>
Cc: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>
Subject: RE: COVID-19 sentinel surveillance DRAFT protocol

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All, We had a few tasks following the last call. Wanted to report out on mine. (Gayle will share the latest protocol and the deidentified testing text, and updates on her progress over the weekend).

-Comms planning – Working with Comms group re two deliverables to share with you all – Q&As re the surveillance collaboration’s goals and structure (to have before the 1st case is identified and messages to have ready once the 1st case is identified. Hope to share these **tomorrow** for your input and use to create your own materials.

-Document that outlines what happens once the 1st case is identified – this is based on the transition document I shared a few days ago. Was envisioning a more operational plan, that augments the more conceptual plan I shared. Have attached a first stab at this. Will add a table to make simpler, but please edit and comment on this one. It ends at the 1st detections, and needs another step- triggers for transitioning more fully to community and health care mitigation from early case containment and control management. But this will be next

-Funds – working on this still to get clarity re timing. Assume that funding for surveillance and response to states will come, at least initially, through ELC Coags, and assume that section E will be used. Will keep you updated re steps and timing.

Finally, feel free to send stored, de-identified samples when you are ready. We are happy to receive and eager to get started!

Thanks
Joe

Joseph Bresee, MD
Dep. Incident Manager
2020 CDC nCoV Response

Guidance for public health actions recommended if a SARS-CoV-2 is detected in a person(s) without known risk factor for infection

This draft guidance is to inform activities in response to early cases of COVID-19 in a community or the US that are identified through community-based surveillance. Currently, all confirmed cases of SARS-CoV-2 infection in the US are among persons with exposure to high-risk regions of the world or with direct exposure to a confirmed case. The detection of these cases has been a product of aggressive surveillance of persons with specific exposures, and testing guidance that focuses on such exposures. The US is currently in the transition from Recognition to Initiation interval described in the 2018 FEMA Pandemic Crisis Action Plan.

Several other countries have reported cases that have no known epidemiological link to known risk exposures – e.g. travel or contact with another case. As community surveillance is established, COVID-19 cases may be detected that do not have a discernable epidemiological link to another case or a known risk factor. While control and containment strategies are being employed during this interval, the detection of confirmed cases in the community may indicate early human-to-human spread in the U.S. unlinked to known risk factors, triggering a change in public health response.

This guide contains recommended actions taken by local and national public health officials to investigate and respond to these early cases.

Current situation and response posture - containment

- As of February 23, 2020, 14 cases have been detected among travelers and close contacts of travelers in the US, and 7 cases among persons in cohorts repatriated to the US from Hubei province or a cruise ship in Japan.
- No cases unlinked to epidemiologic risk factors have been detected, largely because testing has been focused on those with such risk factors.
- USG and state and local governments are currently using a containment strategy for addressing nCoV emergence with a goal to slow the introduction and eventual spread of nCoV in the U.S. (aligns with late “Recognition” and early “Initiation” intervals in the U.S.) These efforts are designed to buy time for advancing U.S. preparedness.
- These activities include a focus on identifying persons with possible infection at the border and among close contacts of confirmed cases, with resulting isolation and quarantine as appropriate.
- Containment measures, especially legally enforced quarantine and contact tracing and monitoring are resource intensive activities.

Adjusting response measures with detection of possible community transmission

- As the number of nCoV cases increases in the U.S., public health measures will be adjusted to accommodate for the changing epidemiology and risks as described in the 2018 FEMA Pandemic Crisis Action Plan and supporting documents. (aligns with “Acceleration” interval in the U.S.)
- A phased transition from the current *containment* approach (i.e., public health managed case- and contact-based efforts for slowing introduction) to a *mitigation* approach (broader community- and individual-based set of interventions that are intended to minimize spread of disease and reduce the impact of illness and death, like efforts for seasonal or pandemic influenza) is recommended as early as possible if there is any evidence of or anticipation of ongoing human-to-human transmission of SARS-CoV-2 in the U.S.

Trigger event – laboratory confirmation of initial case(s) of SARS-CoV-2 from surveillance in community settings = “community **cases**”

Actions taken **in anticipation** of evidence of first community cases (all sites)

- Surveillance
 - Continue screening of persons travelling from high-risk areas

Commented [BJ(1): The rest of this section is the meat of the document. I will create a table form of this to make it asier to digest and edit – was thinking that the columns are in two groups – Before 1st case detected divided into local and US activities; and once early case detected divided into Local (where case is detected), local (no case yet detected) and US.
The rows would be the areas of work listed here. Will send that shortly but would appreciate any comments ahead of that.

DRAFT; PRE-DECISIONAL

- Refer ill persons for health assessment and testing
- Expand laboratory testing guidance to allow for testing of persons with consistent respiratory disease regardless of exposure criteria
 - Obtain EUA approval for community testing
 - Adjust CDC testing criteria
- Initiate testing in outpatient settings in cities/states at high risk for community spread
- Plan for Enhanced Surveillance (below)
- Monitor syndromic surveillance (e.g., ILI) in location and nationwide
- Case and contact management
 - Isolate confirmed cases according to CDC guidance
 - Conduct risk assessment of close contacts and refer for home monitoring and movement restriction according to risk
 - Consider transitioning to voluntary home quarantine for all persons recommended for legally enforced quarantine
 - Support state and local health departments to monitor person in home isolation or quarantine
- Health care preparedness
 - Health systems plan for increased use of telephone triage and telehealth technology
 - Plan for ensuring adequate staffing and staff safety in the event of community spread
 - Refresh health care system/facility response plans
 -
- Communications
 - Prepare communications plans for identifying first case, from local and national level
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 - Socialize possible CM activities with key partners (e.g. school districts)
 - Increase awareness of community and business leaders

Commented [BJ(2)]: Flesh out with new HC guidance

Commented [BJ(3)]: All – please flesh this out with new CMI

Commented [JD4]: I'm afraid we don't have the resources to do this – requires significant work to identify and enlisting community-based healthcare providers (if DOH has epi staff they can loan for this purpose it could help but it is a LOT of work to do de novo).

I also don't think this question will be answered quickly and we will need to manage a lot of anxiety and uncertainty until we have robust population-based sampling.

I would think EVERYONE will want to start testing all URI after community case(s) is announced but testing capacity very limited – what to tell sites that can't test and patients that can't be tested?

Commented [JD5]: Can you remind me of the CDC thinking on value of absenteeism monitoring? Is there guidance for this? It was uncertain in our experience.

Commented [JD6]: What about if ascertained through de-identified testing? All the same communication and guidance questions but perhaps more challenging <http://www.cidrap.umn.edu/news-perspective/2020/02/covid-19-surges-continue-south-korea-italy> in absence of details about case(s). Need to carefully consider and vet what messaging will be.

Commented [BJ(7)]: Same here

Commented [JD8]: Why only in surveillance site (Maybe I don't know what IPC is)?

Actions taken **once first community case(s) are detected (area of 1st confirmed community case(s))**

- Surveillance
 - Continue screening of persons travelling from high-risk areas
 - Refer ill persons for health assessment and testing
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 - Surveillance sites: ensure appropriate IPC in sites initiating Enhanced surveillance
 - Provide appropriate care to case and ensure appropriate IPC in sites of care

DRAFT; PRE-DECISIONAL

- Enact health care mitigation plans....
- Refresh health care system/facility response plans
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- Communications
 - Release approved official statements
 - Messaging for high-risk groups (e.g. elderly) and LTCFs, etc
- Community mitigation
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 - Recommend alternative work arrangements
 - CM activities...;
- Planning/ policy
 - Local/state assessment of needs and request for CDC support
 - Review of local containment/monitoring strategies and assessment of whether changes are warranted
 - Convene calls between early community surveillance site collaborators to share data

Actions taken **once first community case(s) are detected (US and local areas where no community cases have been detected)**

- Surveillance
 - Continue screening of persons travelling from high-risk areas
 - Refer ill persons for health assessment and testing
 - Prepare for **Enhanced Surveillance** local and in US
 - Monitor syndromic surveillance (e.g., ILI) in location and nationwide
 - Continue community surveillance in other early surveillance sites
 - Expand SARS-CoV-2 surveillance to all PHLs
 - Ready existing platforms for surveillance – e.g. EIP, NVSN, FluSurvNet, NCHS, etc.
 - Monitor school illnesses/absenteeism rates
 - Continue current containment measures
- Case and contact management
 - Continue activities anticipating local spread
- Health care
 - Continue activities anticipating local spread
- Communications
 - Continue activities anticipating local spread
- Community mitigation
 - Continue activities anticipating local spread
- Planning/ policy
 - Daily convening of USG leaders to assess for the need for changes in local and national response posture
 - Ensure USG resources are made available to local jurisdictions to enable planned responses

Commented [JD9]: This will depend to some degree on how the trigger discussion is resolved. I don't think we can start sending specimens until we have a plan for what we will tell public and HCP about implications of community-positive case and can review it with stakeholders. Will HCP be overrun with persons with URI? Will we change any guidance for evaluation, etc.

Commented [BJ(10): Same here

Commented [JD11]: Will be important to have specific triggers for social distancing and detailed guidance for what will be recommended in advance to review with leadership, elected officials.

Commented [BJ(12): Same here

Commented [BJ(13): Same here

Commented [BJ(14): More specific

From: Bresee, Joseph (CDC/DDID/NCIRD/ID)
Sent: Sunday, February 23, 2020 3:45 PM PST
To: Park, Sarah Y., MD; Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Layton, Marci (CDC health.nyc.gov); Layden, Jennifer (CDC illinois.gov); Lindquist, Scott SL (CDC doh.wa.gov); Jain, Seema (CDC cdph.ca.gov); Weiss, Don (CDC health.nyc.gov); Balter, Sharon (CDC ph.lacounty.gov); PGounder@ph.lacounty.gov; Meredith Haddix; Rakeman, Jennifer JR (CDC health.nyc.gov); Christine Mahle; Kauerauf, Judy (CDC illinois.gov); Green, Nicole (CDC ph.lacounty.gov); Pathela, Preeti (CDC health.nyc.gov); Jessica Sell; Conover, Craig (CDC illinois.gov); Ghinai, Isaac; Hector Rivas; Zahn, Matthew; Duchin, Jeff; DeWitt, Justin; Thomas-Smith, Evonda; Lamb, Molly
CC: Bresee, Joseph (CDC/DDID/NCIRD/ID); Langley, Gayle E. (CDC/DDID/NCIRD/DVD)
Subject: RE: COVID-19 sentinel surveillance DRAFT protocol
Attachments: Community surveillance site guidance for what to do with first case detection.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

All, We had a few tasks following the last call. Wanted to report out on mine. (Gayle will share the latest protocol and the deidentified testing text, and updates on her progress over the weekend).

-Comms planning – Working with Comms group re two deliverables to share with you all – Q&As re the surveillance collaboration’s goals and structure (to have before the 1st case is identified and messages to have ready once the 1st case is identified. Hope to share these **tomorrow** for your input and use to create your own materials.

-Document that outlines what happens once the 1st case is identified – this is based on the transition document I shared a few days ago. Was envisioning a more operational plan, that augments the more conceptual plan I shared. Have attached a first stab at this. Will add a table to make simpler, but please edit and comment on this one. It ends at the 1st detections, and needs another step- triggers for transitioning more fully to community and health care mitigation from early case containment and control management. But this will be next

-Funds – working on this still to get clarity re timing. Assume that funding for surveillance and response to states will come, at least initially, through ELC Coags, and assume that section E will be used. Will keep you updated re steps and timing.

Finally, feel free to send stored, de-identified samples when you are ready. We are happy to receive and eager to get started!

Thanks
Joe

Joseph Bresee, MD
Dep. Incident Manager
2020 CDC nCoV Response

Guidance for public health actions recommended if a SARS-CoV-2 is detected in a person(s) without known risk factor for infection

This draft guidance is to inform activities in response to early cases of COVID-19 in a community or the US that are identified through community-based surveillance. Currently, all confirmed cases of SARS-CoV-2 infection in the US are among persons with exposure to high-risk regions of the world or with direct exposure to a confirmed case. The detection of these cases has been a product of aggressive surveillance of persons with specific exposures, and testing guidance that focuses on such exposures. The US is currently in the transition from Recognition to Initiation interval described in the 2018 FEMA Pandemic Crisis Action Plan.

Several other countries have reported cases that have no known epidemiological link to known risk exposures – e.g. travel or contact with another case. As community surveillance is established, COVID-19 cases may be detected that do not have a discernable epidemiological link to another case or a known risk factor. While control and containment strategies are being employed during this interval, the detection of confirmed cases in the community may indicate early human-to-human spread in the U.S. unlinked to known risk factors, triggering a change in public health response.

This guide contains recommended actions taken by local and national public health officials to investigate and respond to these early cases.

Current situation and response posture - containment

- As of February 23, 2020, 14 cases have been detected among travelers and close contacts of travelers in the US, and 7 cases among persons in cohorts repatriated to the US from Hubei province or a cruise ship in Japan.
- No cases unlinked to epidemiologic risk factors have been detected, largely because testing has been focused on those with such risk factors.
- USG and state and local governments are currently using a containment strategy for addressing nCoV emergence with a goal to slow the introduction and eventual spread of nCoV in the U.S. (aligns with late “Recognition” and early “Initiation” intervals in the U.S.) These efforts are designed to buy time for advancing U.S. preparedness.
- These activities include a focus on identifying persons with possible infection at the border and among close contacts of confirmed cases, with resulting isolation and quarantine as appropriate.
- Containment measures, especially legally enforced quarantine and contact tracing and monitoring are resource intensive activities.

Adjusting response measures with detection of possible community transmission

- As the number of nCoV cases increases in the U.S., public health measures will be adjusted to accommodate for the changing epidemiology and risks as described in the 2018 FEMA Pandemic Crisis Action Plan and supporting documents. (aligns with “Acceleration” interval in the U.S.)
- A phased transition from the current *containment* approach (i.e., public health managed case- and contact-based efforts for slowing introduction) to a *mitigation* approach (broader community- and individual-based set of interventions that are intended to minimize spread of disease and reduce the impact of illness and death, like efforts for seasonal or pandemic influenza) is recommended as early as possible if there is any evidence of or anticipation of ongoing human-to-human transmission of SARS-CoV-2 in the U.S.

Trigger event – laboratory confirmation of initial case(s) of SARS-CoV-2 from surveillance in community settings = “community **cases**”

Actions taken **in anticipation** of evidence of first community cases (all sites)

- Surveillance
 - Continue screening of persons travelling from high-risk areas

Commented [BJ(1): The rest of this section is the meat of the document. I will create a table form of this to make it asier to digest and edit – was thinking that the columns are in two groups – Before 1st case detected divided into local and US activities; and once early case detected divided into Local (where case is detected), local (no case yet detected) and US.
The rows would be the areas of work listed here. Will send that shortly but would appreciate any comments ahead of that.

DRAFT; PRE-DECISIONAL

- Refer ill persons for health assessment and testing
 - Expand laboratory testing guidance to allow for testing of persons with consistent respiratory disease regardless of exposure criteria
 - Obtain EUA approval for community testing
 - Adjust CDC testing criteria
 - Initiate testing in outpatient settings in cities/states at high risk for community spread
 - Plan for Enhanced Surveillance (below)
 - Monitor syndromic surveillance (e.g., ILI) in location and nationwide
- Case and contact management
 - Isolate confirmed cases according to CDC guidance
 - Conduct risk assessment of close contacts and refer for home monitoring and movement restriction according to risk
 - Consider transitioning to voluntary home quarantine for all persons recommended for legally enforced quarantine
 - Support state and local health departments to monitor person in home isolation or quarantine
- Health care preparedness
 - Health systems plan for increased use of telephone triage and telehealth technology
 - Plan for ensuring adequate staffing and staff safety in the event of community spread
 - Refresh health care system/facility response plans
 -
- Communications
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DRAFT; PRE-DECISIONAL

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Commented [BJ(5)]: Same here

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Commented [BJ(6)]: Same here

Commented [BJ(7)]: Same here

Commented [BJ(8)]: More specific

From: Helen Y Chu
Sent: Monday, March 2, 2020 11:07 PM PST
To: Trevor Bedford; Lindquist, Scott W (DOH); Duchin, Jeff; Cowgill, Karen; zha6@cdc.gov; Armstrong, Gregory (CDC/DDID/NCEZID/OD)
CC: Jay A. Shendure; Englund, Janet; Mike Famulare
Subject: Re: COVID19 surveillance results

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Just a quick follow up to Trevor's email to make sure you know that these individuals are not consented to be re-contacted based on their results, and the data we are permitted to associate with these previously collected samples are anonymized.

Helen Y Chu, MD MPH
Division of Allergy & Infectious Diseases
New lab address

UW Medicine South Lake Union
Brotman Bldg, Room 254
850 Republican St, Seattle WA 98109
chulab.org

<<https://gcc01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fchulab.org%2F&data=02%7C01%7CJef.Duchin%40kingcounty.gov%7C15d97c4090e94ab104b408d7bf41a364%7Cbae5059a76f049d7999672dfe95d69c7%7C0%7C1%7C637188160946896786&data=mNqTkrHh7Dk8zTFfad4WajUADIMzOKS%2BAst0wl4G%2FHo%3D&reserved=0>>

On 3/2/20, 10:25 PM, "Trevor Bedford" <trevor@bedford.io> wrote:

Hi all,

We started up testing again today of deidentified samples. We tested 380 samples today that had been collected in the past two weeks. We found 4 COVID19+ results out of these 380 samples. We are looking into county and jittered date of sample collection information for these 4 and will have this in the morning.

Mike is revising his incidence modeling estimates based on these new results. These 4 positive samples have been moved forward for sequencing and should be available tomorrow or Wed.

- Trevor

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Sunday, March 1, 2020 3:03 PM PST
To: Duchin, Jeff; Lofy, Kathy KL (CDC doh.wa.gov); Lindquist, Scott SL (CDC doh.wa.gov)
Subject: RE: COVID-19 Surveillance

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Thanks, Jeff.

Yes, we're getting questions about the Snohomish case/school. Also interested in your capacity for electronic lab reporting. Feel free to call if you get a minute, or I can set something up. 678-644-3269.

Thanks,
Tom

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Sunday, March 1, 2020 5:47 PM
To: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: COVID-19 Surveillance

Kathy, Scott – connecting you with Tom Clark from CDC who is out here helping us. We've been discussing how we will do surveillance once we can't track/investigate every case and commercial labs come on board with lots of community testing – might consider making this reportable (neg and positive). Tom, interested in helping us think this through and I'm connecting you by email – he's got other things to chat with you about as well.

Jeff

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Biggs, Holly (CDC/DDID/NCIRD/DVD)
Sent: Friday, February 21, 2020 9:56 AM PST
To: Duchin, Jeff; Christopher Spitters
CC: Lindquist, Scott SL (CDC doh.wa.gov); Chu, Victoria (CDC/DDID/NCIRD/DVD)
Subject: Follow up serum from enhanced contact investigation
Attachments: 2019-nCoV Case and Contact Investigation_01.25.20_v2.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff and Chris,

I hope you are doing well. I wanted to follow up about the possibility of collecting serum from our group of close case contacts at ~4-6 week timepoint (which is coming up quickly!). The aim of this is to assess a possible immune response to SARS-CoV-2 exposure. We have ~38 people on the list that we would reach out to. This follow up was part of the initial protocol, but of course participation would be voluntary.

If ok with you, we are prepared to coordinate this from Atlanta, including reaching out to those who participated in the initial part of the enhanced contact tracing protocol to ask about participation/consent, and making arrangements for blood collection. We can arrange to send a couple EISOs from Atlanta who were involved in the initial phase to do this follow up blood collection and shipment. We can also share a brief consent form and description of the follow up process that we are currently drafting. Also attached the initial broad protocol.

Thank you for your consideration.

Holly

Holly Biggs, MD, MPH
Medical Epidemiologist
Respiratory Viruses Branch
Division of Viral Diseases
National Center for Immunization and Respiratory Diseases
U.S. Centers for Disease Control and Prevention
Office: 404-639-3989
Email: hbiggs@cdc.gov

2019-nCoV Case and Contact Investigation

January 2020

I. BACKGROUND

Little is known about novel coronavirus 2019 (2019-nCoV), including transmission, kinetics, and the spectrum of clinical manifestations (e.g., asymptomatic, mild infection). As part of the public health response to the 2019-nCoV outbreak, we propose to conduct an investigation to explore clinical and epidemiologic characteristics of confirmed 2019-nCoV cases and to describe duration of viral shedding and immune response. We also plan to investigate close contacts of confirmed 2019-nCoV cases. These data will help to better understand risk assessment and recommendations related to public health control measures such as isolation and quarantine.

II. OBJECTIVES

1. Characterize the full spectrum and duration of symptoms associated with 2019-nCoV.
2. Evaluate epidemiologic and clinical risk factors for disease and transmission.
3. Determine the duration of viremia and shedding of 2019-nCoV in the sera, respiratory, gastrointestinal, and urinary tracts of case-patients
4. To assess the presence of virus and nCoV-specific antibody in household or close contacts of case-patients
5. To assess kinetics of the immune response to infection in case-patients.
6. Estimate the frequency of asymptomatic infection among close contacts of case-patients (including healthcare worker close contacts).

III. SUBJECTS OF INVESTIGATION

A. Cases

Persons with a laboratory-confirmed detection of 2019-nCoV and who have provided informed consent will be invited to participate in the investigation. Consenting individuals will undergo an interview, a medical chart abstraction and, if possible, serial collection of specimens.

B. Contacts of Cases

Household contacts and other close contacts of confirmed cases, including healthcare workers, will also be identified for investigation. Individuals in this group will be tested for the presence of nCoV and immune response development, regardless of symptoms. Close contacts will be identified as defined in current 2019-nCoV guidance.

IV. METHODS

Information will be gathered by interviewing confirmed cases and close contacts. For confirmed cases, additional information will be gathered by reviewing medical records of

hospitalized cases, and by performing serial laboratory investigations. Case follow-up will be at 6 months from illness onset.

A. Case Investigation

All persons fulfilling the case definition for a confirmed 2019-nCoV case will be asked to participate in an initial visit. The initial visit with cases may be in or out of the hospital. During this visit, a comprehensive questionnaire will be administered, which will collect data about clinical symptoms, illness course, risk factors, exposures during the 14 days prior to illness onset, and contact information to identify household and close contacts. At the initial visit, cases will be provided a digital thermometer to record their temperature twice daily (off antipyretics is preferred) on the symptom log included in the follow-up questionnaires. Initial biologic specimens will also be collected.

The date of illness onset is referred to as day 0. Depending on when the case is consented and after the initial visit, the investigation team will begin case follow-up, ideally with the following schedule post-illness onset: Day post-illness onset 1, 3, 5, 7, 9, 11, 14, 17, 21, 28, 35, 42, 3 months, and 6 months. Case follow-up will include a questionnaire that collects information on daily symptoms. Ideally, specimen collection will also occur on follow-up visits.

For confirmed cases, an inpatient and/or outpatient medical record abstraction form will be completed, as applicable. With this form, we intend to gather detailed information about past medical history, initial symptoms and additional symptoms during hospitalization, clinical testing, illness course, interventions performed, and outcomes.

B. Contact Investigation

Household and other close contacts of confirmed 2019-nCoV cases will be identified from the initial visit with the associated 2019-nCoV case. Close contact will be defined in line with current guidance for 2019-nCoV.

Initial visits with household and other close contacts of the confirmed 2019-nCoV case will likely be out of the hospital setting. A standardized questionnaire will be administered to each identified household and close contact. If the close contact is a healthcare worker, a questionnaire with healthcare setting specific questions will be used that collects supplemental data about infection control practices. Both questionnaires will gather data about demographics, risk factors, and details about the nature of contact with the 2019-nCoV case. At the initial visit, all contacts will be provided a digital thermometer to record his/her temperature twice daily (off antipyretics is preferred). A symptom log will be provided. Initial biologic specimens will also be taken.

If a contact is found to be positive for 2019-nCoV, regardless of symptoms, then the initial visit questionnaire for cases should be administered, and the contact will henceforth be considered a case.

C. Laboratory Investigation

Following enrollment, specimens for this investigation will ideally be collected from each subject at specified intervals. Specimens collected from confirmed cases will be based on the length of time that has passed since illness onset (Day 0). If the patient continues to be positive, additional specimen collection may be indicated. Please see current CDC guidance for specimen collection, storage and shipping.

1. Cases

▪ Initial visit

Specimens should be collected on the date of the initial visit. At the initial visit, the following samples will be collected: serum, nasopharyngeal (NP) **and** oropharyngeal (OP) swabs (collected and stored separately), lower respiratory tract specimens if available (i.e., bronchoalveolar lavage, tracheal aspirate, pleural fluid, and/or sputum), urine and stool. An initial visit should take place even if the case is more than 35 days post-illness onset, but further follow-up specimens will require further consent.

▪ Follow-up

Depending on when the case is consented, after the initial visit, the investigation team will begin contact follow-up with the following schedule post-illness onset: Day post-illness onset 1, 3, 5, 7, 9, 11, 14, 17, 21, 28, 35, 42, 3 months, and 6 months. During follow-up visits through day 42, serum, NP and OP swabs (collected and stored separately), lower respiratory tract specimens if available, urine and stool will be collected periodically. At 3 months and 6 months, serum and cryopreserved PBMCs may also be collected.

2. Contacts

▪ Initial visit

The initial visit will be undertaken as soon as possible after contact has been identified. For all contacts, regardless of symptoms, the initial set of specimens collected will include serum, nasopharyngeal (NP) **and** oropharyngeal (OP) swabs (collected and stored separately).

A daily symptom diary should be given to all contacts of cases, for recording symptoms. Any contact that develops illness consistent with the 2019-nCoV Persons Under Investigation criteria should be evaluated per current guidance. Any contact with a laboratory detection of 2019-nCoV, regardless of symptoms, should be treated as a confirmed 2019-nCoV case.

▪ Follow-up

If a contact remains asymptomatic, NP, OP and serum specimens may be collected periodically until 14 days after the last exposure with the confirmed case. If possible, serum should also be collected at 4-6 weeks after last exposure with the contact, for assess for the development of an immune response.

If a contact is found to be positive for 2019-nCoV, regardless of symptoms, they should be considered as a confirmed 2019-nCoV case.

3. Specimen collection and storage

Please refer to current CDC guidance for specimen collection and shipping.

D. Laboratory Methods

Virus detection in all available specimen types will be performed using real-time reverse transcription-polymerase chain reaction (rRT-PCR). Testing will also be performed for other common respiratory pathogens. Select specimens will be set up for viral culture on different cell lines. Serologic assays will include enzyme-linked immunosorbent assay (ELISA), indirect fluorescent antibody test (IFA), microneutralization testing (MNT) and pseudoparticle neutralization assay. As these tests are refined, it is anticipated that quantitative testing for different classes of serum antibody might be performed. As the investigation progresses, these testing methods will continue to be modified and improved.

V. DATA MANAGEMENT AND ANALYSIS

The investigation database will be developed by CDC. Demographic, clinical, epidemiologic, and laboratory data for participants will be entered. Personal identifiers will be kept in secure CDC databases for linking if necessary.

Data analysis will include determination of viral shedding according to PCR testing of both respiratory and non-respiratory specimens. In addition, the immune response will be evaluated by interpretation of serology and PBMC results. Laboratory results will be analyzed in conjunction with clinical and epidemiologic findings.

VI. INFORMED CONSENT

Participation in the investigation is strictly voluntary. Upon initial contact, 2019-nCoV cases and their contacts who meet the eligibility criteria will be offered the opportunity to participate in the investigation. Participants aged ≥ 18 years, as well as the parents/guardians of participants aged < 18 years, will be asked to sign the consent to participate in the investigation and have their specimens collected and stored for possible future testing. Children aged 7–18 years will also be asked for assent.

Participants will be also notified that they may be contacted in the future with the opportunity to participate in further studies. Participants will be provided with a copy of the signed consent form, and the investigation coordinator will keep another copy.

VII. PATIENT CONFIDENTIALITY/ETHICAL ISSUES

All data will be kept confidential to the extent allowed by law. CDC is collaborating with state and local health departments in the public health response to cases, suspect cases and contacts of cases with the 2019 novel coronavirus. This activity involves identification, control,

or prevention of disease in response to an immediate public health threat; it is not public health research. Therefore, this activity does not require human subject/IRB review (01.25.20).

DRAFT

DRAFT

From: Trevor Bedford
Sent: Monday, March 2, 2020 10:24 PM PST
To: Lindquist, Scott W (DOH); Duchin, Jeff; Cowgill, Karen; zha6@cdc.gov; Armstrong, Gregory (CDC/DDID/NCEZID/OD)
CC: Shendure, Jay; Englund, Janet; Helen Y Chu; Mike Famulare
Subject: COVID19 surveillance results

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Mike is revising his incidence modeling estimates based on these new results. These 4 positive samples have been moved forward for sequencing and should be available tomorrow or Wed.

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From: Lindquist, Scott W (DOH)
Sent: Wednesday, March 4, 2020 2:16 PM PST
To: Trevor Bedford
CC: Duchin, Jeff; Armstrong, Gregory (CDC/DDID/NCEZID/OD); Cowgill, Karen; zha6@cdc.gov; Helen Y Chu; Mike Famulare; Jay Shendure; Mark J Rieder; Englund, Janet
Subject: Re: Results from first four WA SARS-CoV-2 genomes
Attachments: wa-s1.png, uw.png

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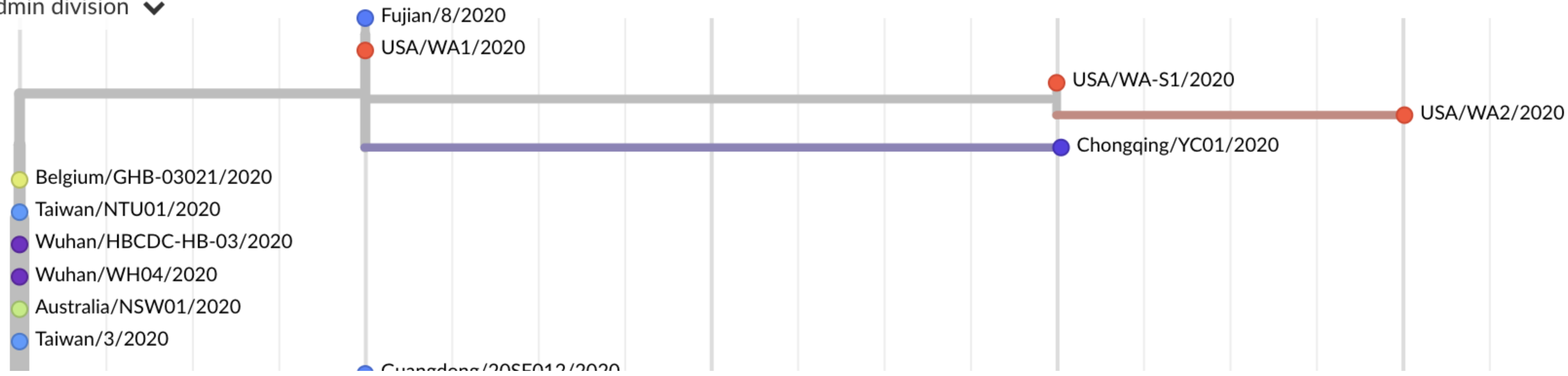
Great to review with the available EPI as it can inform the findings. One of these was a traveler from South Korea and though diagnosed here may not relate to any transmission only location of testing. I talked to PHL about providing aliquots of RNA on positives going forward. Trevor call me to discuss.

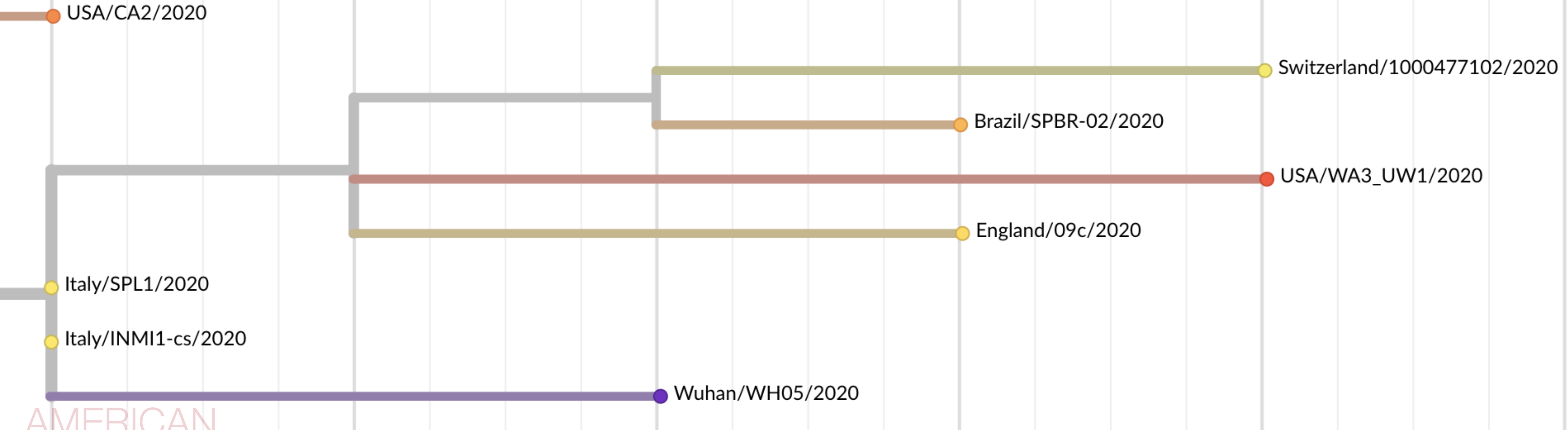
Scott 206-718-2664

> On Mar 4, 2020, at 2:10 PM, Trevor Bedford <trevor@bedford.io> wrote:
>
> Hi all,
>
> We just had another genome come off the sequencer. I'm provisionally calling this WA-S2.
>
> This brings us to:
> - WA1 --- Jan 19, first case in Everett (sequenced by CDC)
> - WA2 --- Feb 24, Snohomish County
> - WA3_UW1 --- Feb 27 Seattle (sequenced by UW Virology)
> - WA-S2 --- Feb 20 Seattle
>
> We see that WA1, WA2 and WA-S2 all fall into the same cluster. This is the one we think has been circulating since mid-Jan. WA3_UW1 is a separate, possibly recent introduction.
>
> <wa-s1.png>
>
>
>
> <uw.png>
>
>
> Given that these three fall into the same cluster, we still estimate that this cluster has resulted in ~600 infections circulating at this moment.
>
> It's hard to say how big of a transmission chain WA3_UW1 is part of.
>
> This genome came from a metagenomics run, the other three failed in this run. These were run in parallel in hybrid capture and should be finished tomorrow I believe.
>
> Please feel free to forward this within public health as you see fit.
>
> I would like to make a public announcement of this genome result alongside broad denominator data (we tested ~1000 specimens and found 5 positives in our research assay) this evening. I will plan to preview this announcement with the group.
>
> - Trevor

Phylogeny

Admin division ▼





From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Monday, March 2, 2020 3:28 PM PST
To: Lofy, Kathy KL (CDC doh.wa.gov); Duchin, Jeff
Subject: Santa Clara County Phased Approach to COVID Mit 03012020
Attachments: Santa Clara County Phased Approach to COVID Mit 03012020.docx, Contact One-pager 20200302.docx, Phased approach guidance - DRAFT 030120v4.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Santa Clara County Phased Approach to COVID-19 Mitigation

Targeted Layered Mitigation Overarching Goals: The targeted layered mitigation strategy is a phased approach to individual, community, business, and healthcare interventions aimed to:

1. Slow transmission and acceleration of disease
2. Minimize morbidity and mortality
3. Preserve function of healthcare, workforce, infrastructure, and minimize social and economic impacts

An “all of community approach” will be needed to implement Targeted Layered Mitigation (TLM). Implementation emphasizes that:

- Life should go with as little disruption as possible,
- Individual responsibility,
- Empowering business and communities, and
- Effective healthcare response

Actions in the community will vary based on epidemiology, severity, and capacity and capabilities of the available public health and healthcare resources.

Immediate Steps to Consider

- Continue contact tracing, monitor and observe contacts as advised in guidance. Focus here is containment around cases.

Phase 1. Enhanced personal protective measures.

Trigger. First travel-related case

Rationale. Personal protective measures are preventive actions that can be used daily to slow the spread of COVID-19.

Recommendations. (Note: This has already been implemented)

- For individuals, the recommendations are very simple, but very important:
 - Keep your hands clean. It is one of the most important steps you can take to avoid getting sick and spreading germs to others. And always need to cover your cough and stay home when you are sick.
 - Today, start working on not touching your face because one way viruses spread is when you touch your own mouth, nose or eyes.
 - Since we know the disease is here, we all need to stay away from people who are sick.
 - And finally, start thinking about family preparedness, how to take care of sick family while not getting infected. Think about a room to isolate a sick person.
- For communities, we need to prepare for the possibility of widespread transmission,
 - Here are some examples of practical measures that can help limit spread by reducing exposure in community settings.
 - Schools: should plan for absenteeism and explore options for tele-learning and enhance surface cleaning.

- Businesses, whenever possible, can replace in-person meetings with video or telephone conferences and increase teleworking options and modify absenteeism policies and also enhance surface cleaning.
- What can I do to protect myself?
 - Start preparing your family and home over the coming days and weeks:
 - Meet with household members, other relatives, and friends to discuss what should be done if a pandemic occurs and what the needs of each person will be.
 - Discuss how you are going to care for family members or loved ones if they become ill, including how to protect the ones giving care.
 - Think about a room in your home that can be used to separate sick household members from those who are healthy. If possible, also choose a bathroom for the sick person to use. Plan to clean these rooms daily. Learn how to care for someone at home.
 - Identify alternative childcare or consider keeping your children at home.
 - If your neighborhood has a website or social media page, consider joining it to stay connected to neighbors, information, and resources.
 - Identify organizations in your community that can help. Consider including organizations that provide mental health or counseling services, food, and other supplies.
 - Create an emergency contact list. Ensure that your household has a current list of emergency contacts for family, friends, neighbors, carpool drivers, health care providers, teachers, employers, and other community resources.
 - Stock up on recommended supplies:
 - Store a two-week supply of water and food.
 - Periodically check your regular prescription drugs to ensure a continuous supply in your home. If you can, have at least a one-month supply of your prescription drugs.
 - Have any nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
 - Include cleaning supplies (soap, antibacterial wipes, hand sanitizers, bleach, rubber gloves, disposable face masks, tissues, toilet paper, and cold medicines.
 - Practice good hygiene:
 - Stay home when you are sick.
 - Cover coughs and sneezes with a tissue or sleeve.
 - Keep your hands clean. Wash hands with soap and water or using hand sanitizer when soap and water are not available.
 - Stay away from people who are sick.
 - Do not touch your face (nose, eyes, mouth) because viruses can spread to you when you touch your own mouth, nose or eyes.
- What is social distancing?
 - Social distancing is a way to slow the spread of a virus. Social distancing includes personal things you can do, and larger public health actions that can be taken.
 - Personal social distancing includes:
 - Washing your hands after touching commonly used items or coming into contact with someone who is sick. Scrub your hands for at least 20 seconds with soap and water.
 - Disposing things that come in contact with your mouth such as tissues or plastic eating utensils.

- Stay away from people who show symptoms of an illness.
 - If you work closely to others, try to keep a distance of approximately three feet from the nearest person while at work.
 - Avoid large public venues such as theaters or sporting events.
- What should schools do?
 - Schools should start planning for the possibility of widespread transmission in our community. This should include plans for absenteeism and exploring options for tele-learning and enhance surface cleaning.
 - When should I keep my child home from school?
 - If anyone is ill with fever, cough or other symptoms, they should stay home from work or school and other public activities until at least 24 hours after they have recovered.
- What Should Businesses Do?
 - Businesses should prepare for widespread transmission in our community. Planning should consider replacing in-person meetings with video or telephone conferences; an increased ability for teleworking options; and, modifying absenteeism policies and enhancing surface cleaning.

Phase 2. Emphasizing protecting vulnerable populations.

Trigger. Second confirmed case of community transmission

Rationale. Based on our current understanding of COVID-19, older adults (65+) and adults with underlying medical problems (such, as diabetes, COPD, etc) are at high risk of severe illness and death. The following recommendations are designed to focus on protecting these vulnerable populations initially. Additional recommendations designed to protect additional groups of individuals may be needed in the future depending on the evolution of the outbreak.

Recommendations.

- Communicate with vulnerable populations about personal hygiene measures
 - Respiratory hygiene etiquette
 - Staying home when sick
 - Contact provider
 - Enhanced cleaning of environmental surfaces
- Identify and target outreach to vulnerable population community leaders
 - Nursing homes
 - Retirement communities
 - Rehabilitation facilities
 - Certain ethnic groups??
 - Prisons and jails??
- In assisted and group living situations
 - Enhanced screening of visitors, staff, and patients for symptoms
 - Enhanced cleaning of environmental surfaces
- Congregate settings
 - Recommend high-risk individuals avoiding mass gatherings such as parades, sporting events, and concerts.

Commented [DM1]: How long should vulnerable pops wait before contacting a provider? We are recommending 5 days for general population, right?

- Recommend high-risk individuals consider avoiding other settings where people congregate such as community centers or movie theaters.
- Recommend faith-based and other community organizations to scale back large group activities (e.g. services, group congregation) especially for high risk groups (e.g., the elderly).
- Healthcare considerations
 - Reinforce existing messaging around guidance; specific outreach to long-term care facilities and skilled nursing (new guidance available from cdc)

Phase 3. Maximizing social distancing

Trigger. Three (???) confirmed cases of community transmission

Rationale. Reducing congregation of people can reduce transmission, prevent illness, and slow the course of the epidemic.

- For individuals
 - Recommend that all people avoid attending gatherings such as parades, concerts, and sporting events, if possible.
 - If they do attend large gatherings, ask people to try to maintain at least 6 feet (2 meters) of distance between themselves and others
- For the community
 - Ask businesses to employ strategies to increase social distancing, including maximizing use of telework policies, canceling in-person meetings or assemblies, and consider alternate team approaches for work schedules
 - Ask schools to employ strategies increase social distancing
 - Pre-K
 - Enhanced screening of visitors, staff, and kids for symptoms, with clear guidance to not come to school if any symptoms
 - K-12
 - Enhanced screening of visitors, staff, and students for symptoms, with clear guidance to not come to school if any symptoms
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
 - Universities and college campuses
 - Cancelling large group and communal activities like lectures, mass celebrations, and sporting events.
 - Provide information to students and faculty to encourage minimizing interactions in dorms and dining halls
 - Ask faith-based and community-based organizations to cancel/postpone gatherings, religious gatherings, celebrations, and events
 - Ask event organizers to postpone large gatherings such as concerts, music festivals, and parades
 - Ask businesses to allow liberal leave and telework policies, 5-day leave policies for people with symptoms, consider alternate team approaches for work schedules.

Phase 4. School cancellation/dismissal

For Consideration//Draft 3/1/2020

Trigger. Case with school contacts has been identified??

Rationale. Preventing the spread of disease in educational settings among children and young adults may be one of the most effective measures to reduce the risk for infection for these age groups and slows virus transmission in the community.

Recommendation.

- Dismiss or cancel schools until further notice

Appendix 1. Possible K-12 Social Distancing Strategies

- Split classes into smaller groups of students and staff
- Cancelling large group and communal activities like assemblies, camps, mass celebrations
- Stagger times for larger groups to congregate (e.g., entrance and dismissal, recess, mealtimes)
- Hold after school activities in small groups only (size at the discretion of local authorities) or consider cancelling them

Example of Phased Mitigation Options Actions for Communities with Local Spread

Targeted Layered Mitigation Overarching Goals: The targeted layered mitigation strategy is a phased approach to individual, community, business, and healthcare interventions aimed to:

1. Slow transmission and acceleration of disease
2. Minimize morbidity and mortality
3. Preserve function of healthcare, workforce, infrastructure, and minimize social and economic impacts

An “all of community approach” will be needed to implement Targeted Layered Mitigation (TLM). Implementation emphasizes that:

- ~~Life should go with as little disruption as possible,~~
- Individual responsibility,
- Empowering business and communities, and
- Effective healthcare response

Actions in the community will vary based on epidemiology, severity, and capacity and capabilities of the available public health and healthcare resources. TLM is categorized in four key areas: 1) Individual and household actions, 2) Community interventions 3) Healthcare system response, 4) Travel and border health. This appendix outlines the guiding principles, key areas for actions. Implementation will be a phased approach. This strategy will evolve as USG learns more.

As communities begin to have outbreak/cases (3 generations of spread, signals of community spread, multiple healthcare facilities impacted) a phased in approach to begin mitigation should be used.

Note: Decisions regarding the point at which an individual jurisdiction reaches this threshold for transition from active case finding and contact tracing and broad testing (Phase 1) to broad social distancing messaging and symptom monitoring with targeted testing of high risk individuals (Phase 2) may vary based on the capacity of an individual health department jurisdiction (e.g., city, county) and should be made in joint discussion with state health officials, leveraging additional resources that may be available from adjacent jurisdictions, the state and federal government. It is recognized that within an individual state one jurisdiction may transition from this containment (Phase 1) to mitigation (Phase 2) strategy while another jurisdiction in the same state may still be in containment (Phase 1) or be exiting from mitigation (Phase 2) into recovery.

Below Outlines Immediate Steps to Consider for Action

Phase 1.

- Communications: Communicate to the public about individual and household responsibility and importance of actions to:
 - Recognize symptoms
 - Call healthcare provider BEFORE arriving at the healthcare setting
 - Stay at home if you're ill
 - Care at home if you or a family member is ill
 - Prepare for disruption

- Active case finding: Continue contact tracing, monitor and observe contacts as advised in guidance. Focus here is containment around cases. Consider also testing cases of hospitalized pneumonia with unknown cause.
 - Self isolation: Initial decisions regarding duration of self-isolation may be based on existing guidance that recommends two sets of NP and OP swabs collected greater than 24 hours apart to be negative.
 - Self quarantine; For close contacts that may be exposed to a confirmed COVID-19 case, individuals should be counseled to stay at home (out of social circles, minimize community movement), watch for signs and symptoms of COVID-19 illness (fever, cough, SOB), for 14 days.
 - Monitoring of isolated and quarantined patients should be done to the extent needed for adequate public health action.
- **Phase 2**
 - Communications: emphasize individual and household actions above. Messages should strengthen on staying at home when you're sick if illness is mild (COVID-19 or non-COVID-19) and understanding when to seek care.
 - Consider using decision trees, self checkers to help direct people to the right level of care
 - {eCase identification and contact tracing}:- Determine cases to be identified and extent of contact tracking
 - As case counts increase, it is recognized that detailed ongoing contact tracing will may no longer be possible due to the numbers of individuals and contacts.
 - At this point, it will be important to communicate broadly that individuals with signs and symptoms of COVID-19 (e.g., fever, cough, shortness of breath) self-isolate in their home to reduce the risk of subsequent risk of infecting others.
 - Self-isolation timeframe:
 - Initial decisions regarding duration of self-isolation could be based on existing guidance that recommends two sets of NP and OP swabs collected greater than 24 hours apart to be negative.
 - However, As state and local resources to conduct home based testing (or facility-based outpatient testing) to be constrained, decisions could be based on 7-14 days of isolation with symptom resolution (no fever for 72 hours, improved other symptoms).
 - Recognizing the challenges with isolation for 14 days for large numbers of people (individual challenges regarding being out of work, and societal challenges associated with having large numbers of people out of work) shorter periods (e.g., 7 days) with a minimum of 72 hours of afebrility with no fever and improved symptoms may be an approach jurisdictions may elect to consider.
 - Self-quarantine:
 - Similarly, it is recognized that as large numbers of cases occur in the community, and there is risk to societal disruption, the role of quarantine of close contacts of confirmed cases will be a challenge.
 - Ideally, individuals should be counseled to stay at home (out of social circles, minimize community movement), watch for signs and symptoms of COVID-19 illness (fever, cough, SOB), for 14 days.

Commented [bop11]: Would you not want to do some? China was overloaded but still did some tracing - (dani has details).

Would you want to trace severe cases still?

Commented [bop12]: This is really good

- If possible Again, using Recognizing the role of individual responsibility, a social responsibility principle, individuals will should be counseled to stay at home (out of social circles, minimize community movement), watch for signs and symptoms of COVID-19 illness (fever, cough, SOB), and self-isolate for 7 days. as noted above.

- Phase 2 (testing): Decisions regarding discontinuing routine testing will be based on the metrics noted above regarding jurisdictional evidence of widespread community transmission (3 generations of spread, signals of community spread, multiple healthcare facilities impacted, with local health jurisdictions unable to conduct contact tracing of all cases, quarantine or isolation activities limiting the ability of essential societal functions to continue).

Testing of high-risk individuals is still recommended for:

- Asthma
- Neurologic and neurodevelopment conditions
- Blood disorders (such as sickle cell disease)
- Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
- Endocrine disorders (such as diabetes mellitus)
- Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)
- Kidney disorders
- Liver disorders
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
- People who are obese with a body mass index [BMI] of 40 or higher
- People younger than 19 years of age on long-term aspirin- or salicylate-containing medications.
- People with a weakened immune system due to disease (such as people with HIV or AIDS, or some cancers such as leukemia) or medications (such as those receiving chemotherapy or radiation treatment for cancer, or persons with chronic conditions requiring chronic corticosteroids or other drugs that suppress the immune system) Adults 65 years and older
- Children younger than 2 years old¹
- Pregnant women and women up to 2 weeks after the end of pregnancy
- American Indians and Alaska Natives
- People who live in nursing homes and other long-term care facilities

*Note: For all individuals for whom a decision is made for home-isolation, use of telemedicine and use of nurse triage lines is encouraged to ensure those in isolation are assessed for clinical improvement and, if there is progression of symptoms, appropriate triage to higher levels of evaluation and care. Coordination between state, local and federal public health and healthcare will be important to ensure access for all individuals to these services.

Note: Decisions regarding the point at which an individual jurisdiction reaches this threshold for transition from active case finding and contact tracing and broad testing (Phase 1) to broad social distancing messaging and symptom monitoring with targeted testing of high-risk individuals (Phase 2) may vary based on the capacity of an individual health department jurisdiction (e.g., city, county) and

should be made in joint discussion with state health officials, leveraging additional resources that may be available from adjacent jurisdictions, the state and federal government. It is recognized that within an individual state one jurisdiction may transition from this containment (Phase 1) to mitigation (Phase 2) strategy while another jurisdiction in the same state may still be in containment (Phase 1) or be exiting from mitigation (Phase 2) into recovery.

- For medical facilities:
 - Ensure triage
 - Assess infection control actions; assess personal protective equipment (PPE) needs and optimize PPE use
 - Assess visitor policies
 - Consider restriction of visitors to reduce healthcare facility-based transmission.
 - Healthcare workers: Identify exposed healthcare workers, request exposed HCWs voluntary home quarantine (See sub-bullet 4)
 - consideration: hospital may need to go on diversion due to staffing limitations
 - Monitor absenteeism and respiratory illness among non-exposed HCWs
 - Messaging for healthcare workers for the hospitals
 - As the numbers of cases in the community increase, It is recognized that critical work shortage may occur with home quarantine of HCWs having high or medium risk contacts of confirmed cases, and prevent optimal operation of essential clinical services; facilities in conjunction with their local, state health departments should in this setting institute fever and symptom monitoring for health care workers that are contacts of PUIs or confirmed cases, at the beginning and middle of a shift, to ensure continuity of facility operations. If HCWs become symptomatic or develop a fever at any time during the shift, they should report to the facility occupational health clinic, be masked and triaged to home (if mildly ill) or further evaluated (if moderately or more severely ill).

Commented [bop13]: Where do you want this to reference?

Also – should Q and I for HCW be a different number of days? Im ok with 7. We can run it by folks to see what they think. I think for HCW, it should be 7 and then they check in with someone...

- Communicate to the public about individual and household actions to:
 - Recognize symptoms
 - Call healthcare provider BEFORE arriving at the healthcare setting
 - Stay at home if you're ill
 - Care at home if you or a family member is ill
 - Prepare for disruption

- Generous with medical evaluation, medical leave for 5-7 days for low clinical acuity/mild illness, if illness continues see healthcare provider
- Communicate to business, faith-based and community leaders about encouraging hygiene, actions individuals can take and responsibility messages.
- Ask businesses to assess continuity of business plans – should include liberal leave and telework policies, 7-5 day leave policies for people with symptoms, consider alternate team approaches for work schedules. Also, know how their resources

Commented [author4]: typo

- Ask faith-based and other community organizations to consider scaling back large group activities (e.g. services, group congregation) especially for high risk groups (e.g., the elderly).
- Ask organizers of community-wide mass gatherings of more than 500 people to consider cancelling events or move to smaller groupings.

- Schools:

- For schools that are not impacted (no students, or teachers with confirmed cases that may have exposed others), actions should focus on minimize an individuals interactions with various groups. Ask local education agencies and colleges and universities to consider:
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
 - Stagger times for larger groups to congregate (e.g., entrance and dismissal, recess, meal times)
 - Hold after school activities in small groups only (size at the discretion of local authorities)
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
 -
 - Consider regular health checks (e.g., temperature screening) of students, staff and visitors.
 - In schools where cases have been identified, one allow one-three days for closure for cleaning and contact tracing to inform if larger school closures may be needed and duration. Contacts of exposed person should follow community exposure self-quarantine described above (7-14 days),. In addition, all 14 day leave for contacts, extra curricular activities should be suspended for two weeks, smaller class sizes should be considered rather than large lectures. Students and families should be reminded to minimize congregation outside of school setting

Commented [bop15]: Kathleen – we need to build this out based on discussions today.

What to do if you were potentially exposed to someone with coronavirus disease 2019 (COVID-19)

If you think you have been exposed to someone with COVID-19, follow the steps below to monitor your health and avoid spreading the disease to others if you get sick.

What is coronavirus disease 2019 (COVID-19)?

COVID-19 is a respiratory disease caused by a new virus called SARS-CoV-2. The most common symptoms of the disease are fever and cough. Most people with COVID-19 will have mild disease but some people will get sicker and need to be hospitalized.

How do I know if I was exposed?

COVID-19 is most commonly spread to people who come into face-to-face contact with someone who is sick with COVID-19.

What should I do if I think I was exposed to someone with COVID-19?

People who think they may have been exposed to someone with COVID-19 should monitor their health for fever and other respiratory symptoms like cough or sore throat during the 14 days after the last day they were in close contact with the ill person with COVID-19.

If I do not have symptoms, can I go to work, school and other public places?

Yes, if you do not have symptoms, you can go to work, school and other public places.

What should I do if I get sick?

If you get sick with fever, cough, or other respiratory symptoms (even if they are very mild), you should immediately go home and stay away from other people.

If your symptoms are mild symptoms, you can stay at home, rest, and drink plenty of fluids.

If your symptoms worsen, you should call your healthcare provider and tell them that you were exposed to someone with COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed.

If you have any of the following conditions—age 60 years or over, diabetes, chronic lung diseases, or chronic serious heart disease, contact your physician's office. They may want to monitor your health more closely. Your physician may want to test you for influenza or other respiratory viruses.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive or immediately after they arrive.

From: Lofy, Kathy H (DOH)
Sent: Monday, March 2, 2020 3:58 PM PST
To: Duchin, Jeff; Lindquist, Scott W (DOH); Clark, Thomas A. (CDC/CCID/NCIRD)
CC: DOH-OSC (DOH); DOH-IC (DOH)
Subject: One Pager for Cases and Contacts
Attachments: Case One-pager 20200302.docx, Contact One-pager 20200302.docx

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Please review!!

Kathy Lofy, MD

Gender Pronouns: she/her_

State Health Officer

Office of the Secretary

Washington State Department of Health

kathy.lofy@doh.wa.gov

360-236-4030 | www.doh.wa.gov



What to do if you are sick with coronavirus disease 2019 (COVID-19)

If you are sick with COVID-19 or suspect you are infected with the virus that causes COVID-19, follow the steps below to help prevent the disease from spreading to people in your home and community.

Stay home except to get medical care

You should restrict activities outside your home, except for getting medical care. Do not go to work, school, or public areas. Avoid using public transportation, ride-sharing, or taxis.

Separate yourself from other people and animals in your home

People: As much as possible, you should stay in a specific room and away from other people in your home. Also, you should use a separate bathroom, if available.

Animals: Do not handle pets or other animals while sick. See [COVID-19 and Animals](#) for more information.

Call ahead before visiting your doctor

If you have a medical appointment, call the healthcare provider and tell them that you have or may have COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed.

Wear a facemask

You should wear a facemask when you are around other people (e.g., sharing a room or vehicle) or pets and before you enter a healthcare provider's office. If you are not able to wear a facemask (for example, because it causes trouble breathing), then people who live with you should not stay in the same room with you, or they should wear a facemask if they enter your room.

Cover your coughs and sneezes

Cover your mouth and nose with a tissue when you cough or sneeze. Throw used tissues in a lined trash can; immediately wash your hands with soap and water for at least 20 seconds or clean your hands with an alcohol-based hand sanitizer that contains at least 60 to 95% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty.

Avoid sharing personal household items

You should not share dishes, drinking glasses, cups, eating utensils, towels, or bedding with other people or pets in your home. After using these items, they should be washed thoroughly with soap and water.

Clean your hands often

Wash your hands often with soap and water for at least 20 seconds. If soap and water are not available, clean your hands with an alcohol-based hand sanitizer that contains at least 60% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Soap and water should be used preferentially if hands are visibly dirty. Avoid touching your eyes, nose, and mouth with unwashed hands.

Clean all “high-touch” surfaces every day

High touch surfaces include counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables. Also, clean any surfaces that may have blood, stool, or body fluids on them. Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.

Monitor your symptoms

Seek prompt medical attention if your illness is worsening (e.g., difficulty breathing). **Before** seeking care, call your healthcare provider and tell them that you have, or are being evaluated for, COVID-19. Put on a facemask before you enter the facility. These steps will help the healthcare provider’s office to keep other people in the office or waiting room from getting infected or exposed.

Ask your healthcare provider to call the local or state health department. Persons who are placed under active monitoring or facilitated self-monitoring should follow instructions provided by their local health department or occupational health professionals, as appropriate.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive.

Discontinuing home isolation

Patients with confirmed COVID-19 or suspected COVID-19 should remain under home isolation precautions for a minimum of 7 days and 72 hours after resolution of fever and improvement of symptoms.

What to do if you were potentially exposed to someone with coronavirus disease 2019 (COVID-19)

If you think you have been exposed to someone with COVID-19, follow the steps below to monitor your health and avoid spreading the disease to others if you get sick.

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COVID-19 is a respiratory disease caused by a new virus called SARS-CoV-2. The most common symptoms of the disease are fever and cough. Most people with COVID-19 will have mild disease but some people will get sicker and need to be hospitalized.

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What should I do if I think I was exposed to someone with COVID-19?

People who think they may have been exposed to someone with COVID-19 should monitor their health for fever and other respiratory symptoms like cough or sore throat during the 14 days after the last day they were in close contact with the ill person with COVID-19.

If I do not have symptoms, can I go to work, school and other public places?

Yes, if you do not have symptoms, you can go to work, school and other public places.

What should I do if I get sick?

If you get sick with fever, cough, or other respiratory symptoms (even if they are very mild), you should immediately go home and stay away from other people.

If you have any of the following conditions—age 60 years or over, are pregnant, or have medical conditions, contact your physician's office and tell them that you were exposed to someone with COVID-19. They may want to monitor your health more closely or test you for influenza or other respiratory viruses.

If you are younger, have no health conditions, and your symptoms are mild, stay at home, rest, and drink plenty of fluids. If your symptoms worsen, you should call your healthcare provider and tell them that you were exposed to someone with COVID-19. This will help the healthcare provider's office take steps to keep other people from getting infected or exposed.

If you have a medical emergency and need to call 911, notify the dispatch personnel that you have, or are being evaluated for COVID-19. If possible, put on a facemask before emergency medical services arrive or immediately after they arrive.

From: Brostrom-Smith, Claire
Sent: Wednesday, March 4, 2020 5:13 PM PST
To: Kay, Meagan; Duchin, Jeff; zzgrp, CD Investigation Team
CC: Reddy, Sujana C. (CDC/DDID/NCEZID/DHQP)
Subject: FW: Media Release: State and local officials announce new recommendations to reduce risk of spread of COVID-19

Hi all,

Sujana is at Evergreen right now. They are getting lots of calls from HCW who are pregnant or >60. Our public health recommendation is for those people to stay home as much as possible, including from work.

Just want to put this on everyone's radar, and make sure this is included in the recommendations. This will include a lot of health care providers.

Claire

From: Karasz, Hilary <Hilary.Karasz@kingcounty.gov>
Sent: Wednesday, March 4, 2020 1:14 PM
To: Public Health Public Information Officer <PHPIO@kingcounty.gov>
Subject: Media Release: State and local officials announce new recommendations to reduce risk of spread of COVID-19



March 4, 2020 1:00 p.m.

Contacts:

Public Health – Seattle & King County Media Line: 206-477-9000

Email: PHPIO@kingcounty.gov

State and local officials announce new recommendations to reduce risk of spread of COVID-19

Summary:

State and local health officials announced new guidance to King County residents aimed at reducing their risk of exposure to COVID-19. While all residents can take steps now, people with underlying health conditions are

urged to pay special attention to recommendations to avoid large gatherings of people. Public Health – Seattle & King County also announced on Wednesday ten additional confirmed cases of COVID-19 in King County residents, including one death. This brings the total of confirmed cases to 31, including nine deaths.

Story:

State and local officials announced today new recommendations to King County residents aimed at reducing their risk of exposure to COVID-19. We understand these actions will have a tremendous impact on the lives of people in our community. We are making these recommendations in consultation with CDC based on the best information we have currently to protect the public's health.

This is a critical moment in the growing outbreak of COVID-19 in King County and these measures can potentially impact the spread of the disease.

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 - People 60 and older
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 - People who have weakened immune systems
 - People who are pregnant
- Workplaces should enact measures that allow people who can work from home to do so. Taking these measures can help reduce the number of workers who come into contact with COVID-19 and help minimize absenteeism due to illness
- If you can feasibly avoid bringing large groups of people together, consider postponing events and gatherings.
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This is a massive undertaking and we have a talented, dedicated team digging in to learn everything we can to protect the health of our community. What we have seen with the level of community spread has raised the level of concern about the immediate threat of COVID-19, particularly for vulnerable populations such as people over 60, those with underlying health conditions or who are immune compromised.

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In addition to the recommendations listed above, the public can help:

- 1) **Do not go to the emergency room unless essential.** Emergency rooms need to be able to serve those with the most critical needs. If you have symptoms like cough, fever, or other respiratory problems, contact your regular doctor first.
- 2) Stay home when sick.
- 3) Practice excellent personal hygiene habits, including handwashing, coughing into tissue or elbow, avoid touching eyes, nose, or mouth.
- 4) Stay away from people who are ill, especially if you are 60 and older or have underlying health conditions such as diabetes, heart disease, lung disease, or a weakened immune system.
- 4) Stay informed. Information is changing frequently. Check and subscribe to Public Health's website (www.kingcounty.gov/COVID) or blog (www.publichealthinsider.com).

Remember to take every day preventive action such as washing hands, and if you are sick stay home. During an outbreak with a new virus there is a lot of uncertainty. Our guidance and advice is subject to change as we learn more. We will continue to keep you updated.

Providing effective and innovative health and disease prevention services for more than two million residents and visitors of King County, Public Health – Seattle & King County works for safer and healthier communities for everyone, every day. More at www.kingcounty.gov/health

Keep up with the latest Public Health news in King County by subscribing to the department's blog, [Public Health Insider](#).

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###

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP)
Sent: Tuesday, March 3, 2020 10:32 AM PST
To: Duchin, Jeff; Kay, Meagan
CC: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Subject: FYI upcoming press conference: NC confirmed case linked to Life Care

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

For your awareness – new NC case who recently visited his brother who was a Kirkland SNF resident (one of the deaths).

Per NC DOH, NC governor is planning to put out a press release within the next hour.

This info conveyed to me from CDC Atlanta. Sending to you for your awareness.

Agam Rao, MD
CDR, USPHS
CDC Technical Epi Lead
WA-King County COVID-19 field team

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP)
Sent: Tuesday, March 3, 2020 7:53 PM PST
To: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP); Duchin, Jeff
CC: Kay, Meagan; Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Subject: RE: Need Info ASAP

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Here is some info for #2 (sorry not as quantitative as I'd like)

- 7 acute care hospitals with confirmed patients
 - Estimated 600-700 exposed healthcare workers (HCWs); the burden of assessing risk of HCW exposure, tracking symptoms, and furlough of personnel is very large
 - Many hospitals faced with choice of closing units or services versus letting exposed personnel continue to work with close monitoring for developing and precautions
 - One hospital narrowly avoiding closure based on staffing shortages due to furlough of healthcare workers
 - Currently 50-70 exposed HCWs with symptoms consistent with COVID-19, under evaluation
- Single long term care facility involved in cluster
 - 55 of 179 workers exposed and under quarantine or isolation, testing pending
 - Severe staffing challenges requiring borrowing staff from other facilities and corporate offices to maintain continuity of care
 - Ongoing PPE shortages
 - Disruption of routine diagnostic testing services
- Some Long term care facilities refusing to accept any patient from a hospital caring for COVID-19 patients, resulting in bed capacity issues

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>
Sent: Tuesday, March 3, 2020 10:16 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Subject: FW: Need Info ASAP

Hi Jeff,

The epi team has answers for 3 of your 4 questions. I defer to John and his infection control team for the answers to your question #2.

--Agam and the rest of the epi team

1. Of the 21 cases reported on 3/3 morning:
 - o 16 may be part of one large cluster. This large cluster involves the Life Care LTCF AND the dialysis facility where one Life Care patient received dialysis.
 - o The CDC epi team has been investigating the other 5 cases. We believe that some of these people too may be connected to the larger cluster but are still doing work to sort that out. Briefly:
 - 1 person: Person who works for Emerald City Movers and worked for an unknown number of days while symptomatic. Some of his contacts are ill
 - 2 people: Person who frequently goes dancing in Kirkland + his wife
 - 1 person: Contractor from Q Analysts to FB. Q analysts is Headquartered in Kirkland. It is not known how much time he spent in Kirkland before illness onset. His family thinks though that he got exposed by a FB co-worker who was sick.
 - 1 person: Unknown connection to the other cases. But he works at Amazon and apparently attended a FB party the day of illness onset
3. We can speak to the number of exposure locations of 8 of the known cases.
 - 16 locations. The details are: Bartending at Century Link Stadium this past week, middle school soccer game, home contacts for various patients, dialysis facility, visitors at Evergreen hospital, visitors at Valley Hospital + gatherings with friends, work at Facebook, Target grocery run, work at Amazon
4. Close contacts for 7 people: ~75 (best guess because people were potentially exposed at large gatherings soccer game). We do not know the number of people that the woman who bartended this weekend at Century Link Stadium this past weekend may have exposed but presumably a large number of people to add to this number of 75.

--Agam

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Tuesday, March 3, 2020 6:20 PM

To: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>

Subject: Need Info ASAP

Hi, team leaders. We are planning on announcing new community mitigation guidance with Executive Constantine tomorrow. I'd like to have a succinct summary of the state of the outbreak to help me frame the reasons the new measures are necessary with as much as we can say about the following: .

1. Epi summary with our best estimate of the number of discrete/unrelated community transmission clusters.
2. Impact on HC system – number of involved facilities, other available metrics.

3. Number of exposure locations of known cases.
4. Estimated number of close contacts of confirmed cases.

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Reddy, Sujana C. (CDC/DDID/NCEZID/DHQP)
Sent: Wednesday, March 4, 2020 5:22 PM PST
To: Brostrom-Smith, Claire; Kay, Meagan; Duchin, Jeff; zzgrp, CD Investigation Team
CC: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Stone, Nimalie (CDC/DDID/NCEZID/DHQP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Spicer, Kevin (CDC/DDID/NCEZID/DHQP)
Subject: RE: Media Release: State and local officials announce new recommendations to reduce risk of spread of COVID-19

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Thanks Claire. I talked with John who talked with Jeff and Sharon.

I conveyed to Evergreen that the intent was not to limit HCP from coming to work, and shared the release. They understand and will work with their HCP staff. But I do think that other facilities will face these same calls.

Also, as we discussed, many facilities will be asking about state DOH changing to droplet/contact except for aerosol generating procedures. We might want to think through a call with facilities to walk through these issues.

Dear CNOs, Quality Leaders and Risk Managers

WSHA, in conjunction with the Washington State Department of Health, has created new isolation precaution signage to cover respiratory viruses, including COVID-19. This sign replaces the Airborne Respirator/Contact Precaution sign for COVID-19.

<https://washington-state-hospital-association.myshopify.com/collections/isolation-precautions/products/isolation-precaution-signage-droplet-contact-e-g-covid-19>

The new signage combines content from two of WSHA's existing precaution signs and provides additional clarification about the need for masking and eye protection for anyone entering the room. This new signage is in alignment with guidelines from the World Health Organization.

Importantly:

- Eye protection is required.
- Masks are required, but N95 masks are required only when doing aerosolizing procedures.

WSHA and WA DOH will host a webinar on Tuesday, March 10th at 3pm about the new sign and answer questions. You can register for the event here: <https://attendee.gototraining.com/r/7810804565223983106>

WSHA will ensure all hospitals receive and will follow this new guidance. ***Please reply to me with a confirmation that this message has been received.*** If we do not receive this confirmation, we will call you.

Sincerely,

Darcy

Darcy Jaffe, MN, ARNP, NE-BC, FACHE
Senior Vice President, Safety & Quality
Washington State Hospital Association
Office: (206) 216-2501
Email: darcyj@wsaha.org



From: Brostrom-Smith, Claire <Claire.Brostrom-Smith@kingcounty.gov>
Sent: Wednesday, March 4, 2020 8:14 PM
To: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; zzgrp, CD Investigation Team <cdinvteam@kingcounty.gov>
Cc: Reddy, Sujana C. (CDC/DDID/NCEZID/DHQP) <kuj0@cdc.gov>
Subject: FW: Media Release: State and local officials announce new recommendations to reduce risk of spread of COVID-19

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Sent: Wednesday, March 4, 2020 1:14 PM
To: Public Health Public Information Officer <PHPIO@kingcounty.gov>
Subject: Media Release: State and local officials announce new recommendations to reduce risk of spread of COVID-19



March 4, 2020 1:00 p.m.

Contacts:

Public Health – Seattle & King County Media Line: 206-477-9000

Email: PHPIO@kingcounty.gov

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Remember to take every day preventive action such as washing hands, and if you are sick stay home. During an outbreak with a new virus there is

a lot of uncertainty. Our guidance and advice is subject to change as we learn more. We will continue to keep you updated.

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###

From: Duchin, Jeff
Sent: Tuesday, March 3, 2020 10:09 PM PST
To: Karasz, Hilary; Heather Thomas; Lofy, Kathy H (DOH); kevin.wickersham@doh.wa.gov; Bogan, Sharon; jwiesman@doh.wa.gov; Hayes, Patty; Shawn Frederick; Christopher Spitters [External]
CC: Apa, James; bhaynes@cdc.gov; Kay, Meagan; Worsham, Dennis
Subject: Re: COVID 19 community mitigation draft 3-3.docx

please send word doc and ill review in am

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section

Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Karasz, Hilary <Hilary.Karasz@kingcounty.gov>

Sent: Tuesday, March 3, 2020 7:05 PM

To: Heather Thomas <hthomas@snohd.org>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>; kevin.wickersham@doh.wa.gov <kevin.wickersham@doh.wa.gov>; Bogan, Sharon <Sharon.Bogan@kingcounty.gov>; jwiesman@doh.wa.gov <jwiesman@doh.wa.gov>; Hayes, Patty <Patty.Hayes@kingcounty.gov>; Shawn Frederick <sfrederick@snohd.org>; Christopher Spitters [External] <christopher.spitters@comcast.net>

Cc: Apa, James <James.Apa@kingcounty.gov>; bhaynes@cdc.gov <bhaynes@cdc.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>; Worsham, Dennis <Dennis.Worsham@kingcounty.gov>

Subject: Re: COVID 19 community mitigation draft 3-3.docx

Copying Meagan and Dennis on this as well.

Get [Outlook for iOS](#)

From: Heather Thomas <hthomas@snohd.org>

Sent: Tuesday, March 3, 2020 5:36:41 PM

To: Karasz, Hilary <Hilary.Karasz@kingcounty.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>; kevin.wickersham@doh.wa.gov <kevin.wickersham@doh.wa.gov>; Bogan, Sharon <Sharon.Bogan@kingcounty.gov>; jwiesman@doh.wa.gov <jwiesman@doh.wa.gov>; Hayes, Patty <Patty.Hayes@kingcounty.gov>; Shawn Frederick <sfrederick@snohd.org>; Christopher Spitters [External] <christopher.spitters@comcast.net>

Cc: Apa, James <James.Apa@kingcounty.gov>; bhaynes@cdc.gov <bhaynes@cdc.gov>

Subject: RE: COVID 19 community mitigation draft 3-3.docx

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Thanks; I have forwarded to Shawn and Chris. Also copied them on this thread for future communication.

Heather Thomas | Public & Government Affairs Manager | Snohomish Health District
3020 Rucker Avenue, Suite #306 | Everett, WA 98201 | **p: 425.339.8688** | c: 425.508.4980

Public Health: Always working for a safer & healthier Snohomish County

NOTICE: All emails and attachments sent to and from the Snohomish Health District are public records and may be subject to disclosure pursuant to the Public Records Act (RCW 42.56).

From: Karasz, Hilary [mailto:Hilary.Karasz@kingcounty.gov]
Sent: Tuesday, March 3, 2020 5:24 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>; kevin.wickersham@doh.wa.gov; Bogan, Sharon <Sharon.Bogan@kingcounty.gov>; jwiesman@doh.wa.gov; Hayes, Patty <Patty.Hayes@kingcounty.gov>
Cc: Heather Thomas <hthomas@snohd.org>; Apa, James <James.Apa@kingcounty.gov>; bhaynes@cdc.gov
Subject: COVID 19 community mitigation draft 3-3.docx

These are the community mitigation strategies we discuss this afternoon. We have reviewed them together several times, but Jeff has not noodled with them. These are the measures we will announce at the presser tomorrow. I think Chris Spitters was looking to see these as well but I don't have his email. Please forward.

Hilary Karasz, PhD (she/her)
Communications
Public Health – Seattle & King County
401 5th Avenue, Suite 1300
Seattle, WA 98104
206-263-8705
Subscribe to the *PH Insider*! <https://publichealthinsider.com/subscribe/>

From: Bogan, Sharon
Sent: Tuesday, March 3, 2020 10:49 PM PST
To: Duchin, Jeff; Karasz, Hilary
CC: Kay, Meagan; Dan Jernigan (dbj0@cdc.gov)
Subject: RE: Testing at LifeCare

Yes. We can work on that. I'm going to have Benjamin from CDC Comms start working on that.

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Tuesday, March 3, 2020 10:47 PM
To: Bogan, Sharon <Sharon.Bogan@kingcounty.gov>; Karasz, Hilary <Hilary.Karasz@kingcounty.gov>
Cc: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Dan Jernigan (dbj0@cdc.gov) <dbj0@cdc.gov>
Subject: Fwd: Testing at LifeCare

I feel terrible about this situation and want to communicate with families tomorrow. Can you please draft a letter for me with input from John's team describing our response to the outbreak at LifeCare. I want to acknowledge the suffering, the poor communication and help Families understand why what is being done is being done.

Jeff

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Duchin, Jeff
Sent: Tuesday, March 3, 2020 10:07:13 PM
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Cc: Kay, Meagan <Meagan.Kay@kingcounty.gov>
Subject: Testing at LifeCare

<https://www.nytimes.com/2020/03/03/us/coronavirus-washington-death.html>



[Coronavirus Deaths at Nursing Center Came Earlier Than Anyone Knew - The New York Times](https://www.nytimes.com/2020/03/03/us/coronavirus-washington-death.html)

The ire of the relatives of those inside was growing with each new revelation. "Because these are elderly and infirm people, it's like we are waiting for them to be picked off, one by one ...

www.nytimes.com

We really need to get better communication to families. If someone sent me a message that was shared with families, i can;t find it in my inbox - please resend.

Thanks _jeff

Jeffrey S. Duchin, MD (he/him)
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To: Bogan, Sharon; Duchin, Jeff
CC: Kay, Meagan; Dan Jernigan (dbj0@cdc.gov)
Subject: Re: Testing at LifeCare

Good idea, Jeff and Sharon.

Get [Outlook for iOS](#)

From: Bogan, Sharon <Sharon.Bogan@kingcounty.gov>
Sent: Tuesday, March 3, 2020 10:49:55 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Karasz, Hilary <Hilary.Karasz@kingcounty.gov>
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[Coronavirus Deaths at Nursing Center Came Earlier Than Anyone Knew - The New York Times](#)

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Sent: Wednesday, March 4, 2020 6:58 AM PST
To: Kay, Meagan; Duchin, Jeff
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, John A. (CDC/DDID/NCEZID/DHQP)
Subject: RE: Timeline of 21 cases

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Our epi team is working on an epi curve with this same timeline information. Will have it for the 8am meeting.

From: Kay, Meagan <Meagan.Kay@kingcounty.gov>
Sent: Wednesday, March 4, 2020 6:56 AM
To: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
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Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Subject: Timeline of 21 cases

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Jeff and Meagan,

Attached is a timeline of all 21 cases by date of illness onset. The color codes indicate the exposure:
-Red = Life Care exposure (includes HCW, residents, and visitors)
-Blue = community (not yet sure of the exposure but some of these have connections to Kirkland)
-Green = dialysis
-yellow = travel-associated (and is just the 1 postal worker)

--Agam

Agam Rao, MD
CDR, USPHS
CDC Technical Epi Lead

WA-King County COVID-19 field team

From: D'Angeli, Marisa (DOH)
Sent: Tuesday, March 3, 2020 1:38 PM PST
To: Lofy, Kathy H (DOH); Lindquist, Scott W (DOH); DOH-IC (DOH)
CC: Brostrom-Smith, Claire; Duchin, Jeff; Montgomery, Patricia A (DOH); Stone, Nimalie (CDC/DDID/NCEZID/DHQP)
Subject: RE: WA Nursing Board Quality Commission
Importance: High

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi All,

We need assistance ASAP. Lifecare is very short staffed and wants to bring in staff from other states to work to maintain operations. The Nursing Commission said that it was impossible to allow nursing staff to be allowed to work here without regular licensing.

Is there any way we can contact the NC in this emergency to expedite licensing or allow acceptance of other states' nursing licenses for a limited time for this emergency?

Marisa

Marisa D'Angeli, MD, MPH

Medical Epidemiologist

Healthcare Associated Infections and Antimicrobial Resistance Program

Washington State Department of Health

Marisa.dangeli@doh.wa.gov

206-418-5595 | www.doh.wa.gov



From: Stone, Nimalie (CDC/DDID/NCEZID/DHQP) [mailto:ei2@cdc.gov]
Sent: Tuesday, March 3, 2020 1:29 PM
To: D'Angeli, Marisa (DOH) <Marisa.DAngeli@DOH.WA.GOV>
Cc: Brostrom-Smith, Claire <Claire.Brostrom-Smith@kingcounty.gov>; Duchin, Jeffery, MD (DOH) <jeff.duchin@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>
Subject: FW: WA Nursing Board Quality Commission

Hi Marisa,

Thanks so much for your assistance escalating the request to the WA Nursing Board from LifeCare Center of Kirkland to allow clinicians from out of state to provide clinical services to support care of residents in this center since their workforce has been impacted by the COVID-19 outbreak. Please see the email chain below for more context. I'm copying Jeff and Claire from King County along with Patty so they know that you are in the loop and working on this issue.

Let us know if you need anything to help support or justify the urgency of this request.

Best wishes,

Nimalie

From: Fletcher, Todd <Todd_Fletcher@lcca.com>
Sent: Tuesday, March 3, 2020 1:55 PM
To: Stone, Nimalie (CDC/DDID/NCEZID/DHQP) <ei2@cdc.gov>
Subject: WA Nursing Board Quality Commission

Dr. Stone,

Here is the email at the bottom from DOH Nursing Board. Thanks.

Todd

Todd W. Fletcher
Vice President of Western Operations
Life Care Centers of America
33528 6th Ave. South
Federal Way, WA 98003
253-952-2184
253-733-3240 fax
Todd_Fletcher@LCCA.com

From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 4:28 PM
To: Hulgan, Carol <Carol_Hulgan@lcca.com>; Fletcher, Todd <Todd_Fletcher@lcca.com>
Subject: RE: Life Care Center at Kirkland.

CAUTION: This email did not originate from a Life Care email account, even if it appears to have been sent from a Life Care associate. Do not click links or open attachments unless you are expecting this email and know the content is safe. If in doubt, report using the Phish Alert toolbar button or forward the email to securityreview@lcca.com for analysis.

Carol, I will stick around the office for a while. If I hear anything positive from them I will connect the appropriate person with you via email and then you can work out any details with them. I am hopeful, but have learned never to underestimate the State of Washington's love of "process".

From: Hulgan, Carol <Carol_Hulgan@lcca.com>
Sent: Monday, March 2, 2020 4:20 PM
To: Robin Dale <robindale@whca.org>; Fletcher, Todd <Todd_Fletcher@lcca.com>
Subject: RE: Life Care Center at Kirkland.

Thank you so much!!

Carol Hulgan, RN, CHC, LNCC
Senior Vice President Clinical Services
carol_hulgan@lcca.com
Life Care Centers of America
3001 Keith Street NW

Cleveland, TN 37312
423/473-5551 Office
423/339-8326 Fax

Harmony	Competition	Consistency	Activator	Empathy
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From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 7:18 PM
To: Fletcher, Todd <Todd_Fletcher@lcca.com>
Cc: Hulgan, Carol <Carol_Hulgan@lcca.com>
Subject: FW: Life Care Center at Kirkland.

CAUTION:This email did not originate from a Life Care email account, even if it appears to have been sent from a Life Care associate. Do not click links or open attachments unless you are expecting this email and know the content is safe. If in doubt, report using the Phish Alert toolbar button or forward the email to securityreview@lcca.com for analysis.

See below. Rep. Cody is the most powerful figure in the legislature. She is working on it. I think my email (below) got some attention.

From: Cody, Rep. Eileen <Eileen.Cody@leg.wa.gov>
Sent: Monday, March 2, 2020 4:07 PM
To: Robin Dale <robindale@whca.org>
Subject: RE: Life Care Center at Kirkland.

Robin I have asked the department to look at applying our emergency compacts that we have with all 50 states and how it could help.

From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 4:01 PM
To: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Rep. Eileen <Eileen.Cody@leg.wa.gov>; Cleveland, Sen. Annette <Annette.Cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>; Zawislak, Amber (DOH) <Amber.Zawislak@DOH.WA.GOV>; Peterson, Kristin I (DOH) <Kristin.Peterson@DOH.WA.GOV>; Woodard, Catherine (DOH) <Catherine.Woodard@DOH.WA.GOV>; McLellan, Robert (DOH) <robert.mclellan@doh.wa.gov>; Matthews, Micah T (WMC) <micah.matthews@wmc.wa.gov>; Young, T Diane (DOH) <Diane.Young@DOH.WA.GOV>
Subject: RE: Life Care Center at Kirkland.

Paula, thank you for your response. Currently, LCCA has 6 nurses (2 sets of 3 for 5 days straight) ready to go from Colorado. These folks can be ready to deploy on Wednesday. These individuals understand the

biggest need is for night 12 hr shifts and they are a go. Do you have a sense how long the process outlined below will take? Thank you, Robin.

From: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Sent: Monday, March 2, 2020 3:29 PM
To: Robin Dale <robindale@whca.org>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Eileen <eileen.cody@leg.wa.gov>; Cleveland, Annette <annette.cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>; Zawislak, Amber (DOH) <Amber.Zawislak@DOH.WA.GOV>; Peterson, Kristin I (DOH) <Kristin.Peterson@DOH.WA.GOV>; Woodard, Catherine (DOH) <Catherine.Woodard@DOH.WA.GOV>; McLellan, Robert (DOH) <robert.mclellan@doh.wa.gov>; Matthews, Micah T (WMC) <micah.matthews@wmc.wa.gov>; Young, T Diane (DOH) <Diane.Young@DOH.WA.GOV>
Subject: RE: Life Care Center at Kirkland.

Dear Robin: Thank you for your message.

The Nursing Care Quality Assurance Commission, in response to the state of emergency, is announcing the Online Application Portal. The use of the Online Application Portal decreases the amount of time needed to mail an application and provides an opportunity for applicants to pay online for an initial application.

For directions on how to use the Online Application Portal and a link to the system, please review the attached document. <https://www.doh.wa.gov/Portals/1/Documents/6000/669419.pdf>

If you have changed your last name (by marriage, divorce or choice), please be aware this may cause delays in processing due to software complications. List your current last name on the application.

Our office must complete a Washington State Patrol (WSP) and National Practitioners DataBank (NPDB) background check on all applicants prior to issuing a temporary practice permit. Applicants with out of state addresses must submit their fingerprints for an FBI fingerprint background check. If the applicant meets all licensing criteria, with the exception of a completed FBI Fingerprint background check, our office will issue a temporary practice permit. Our office sends the fingerprint cards to the applicant after receipt of an initial application. The sooner the applicant completes the fingerprints, the sooner the application for can be reviewed for a decision to grant or deny the permanent license.

We continue to evaluate other options and will inform you as soon as possible if there are any changes.

For questions, please contact our office at 360-236-4703.

Paula R. Meyer MSN, RN, FRE

Executive Director

Nursing Care Quality Assurance Commission

Washington State Department of Health

Paula.meyer@doh.wa.gov

360-236-4714 | www.doh.wa.gov/LicensesPermitsandCertificates/NursingCommission



From: Robin Dale [<mailto:robindale@whca.org>]
Sent: Monday, March 2, 2020 2:00 PM
To: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Eileen <eileen.cody@leg.wa.gov>; Cleveland, Annette <annette.cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>
Subject: Life Care Center at Kirkland.
Importance: High

Dear Ms. Meyer,

We write in reference to the ongoing Covid-19 outbreak at Life Care Center of Kirkland.

We have been informed that Life Care Center of Kirkland is facing the imminent prospect of a nursing shortage. The center is anticipating the need for additional nursing staff to deal with the current Covid-19 outbreak. Due to the current statewide nursing shortage and compounded by the fact that individuals on the nursing staff at Life Care Center of Kirkland are choosing not to work at the facility due to the ongoing outbreak, Life Care Centers of America (LCCA) is attempting to attract additional nurses. As a national company, LCCA has the ability to bring in additional nurses from sister facilities outside the state and it is prepared to do so.

Earlier today, LCCA was reminded by a representative of the Washington Nursing Care Quality Assurance Commission (NCQAC) that Washington State is not a signatory to the Nursing Compact and therefore nurses from out of state cannot practice in Washington absent certification from the Washington State Board of Nursing.

LCCA has asked for an expedited process to get some needed nursing staff, and has been told that currently there is no expedited process. We understand that LCCA has been informed that, even if an expedited process is approved, any near term or immediate relief is not feasible.

LCCA has been told that NCQAC is meeting this afternoon and they understand that the Commission may take up this issue. We strongly urge the Commission to do so, and thus I reach out with the urgent request for the Department of Health and the Nursing Care Quality Assurance Commission to immediately engage in developing and implementing an expedited process for approving out-of-state nurses for immediate service in Washington State, with a particular focus on getting workers approved for Life Care Centers of Kirkland.

We stand ready to work with both the Department of Health and NCQAC to ensure that critically ill patients to not go without the care and services that are more necessary than ever under this outbreak. This situation should and must be resolved with great urgency.

Please let me know if you have questions. I am standing by to work with you today.

Robin

Robin Dale

President/CEO

Washington Health Care Association

t (800) 562-6170, ext. 101



From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP)
Sent: Wednesday, March 4, 2020 7:55 AM PST
To: Kay, Meagan; Duchin, Jeff
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, John A. (CDC/DDID/NCEZID/DHQP)
Subject: RE: Timeline of 21 cases
Attachments: EpiCurve.xlsx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Attached is the epi-curve of the 21 cases we knew about as of 8am yesterday.

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP)
Sent: Wednesday, March 4, 2020 6:58 AM
To: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
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Jeff and Meagan,

Attached is a timeline of all 21 cases by date of illness onset. The color codes indicate the exposure:

- Red = Life Care exposure (includes HCW, residents, and visitors)
- Blue = community (not yet sure of the exposure but some of these have connections to Kirkland)
- Green = dialysis
- yellow = travel-associated (and is just the 1 postal worker)

--Agam

Agam Rao, MD

CDR, USPHS

CDC Technical Epi Lead

WA-King County COVID-19 field team

NATIVE DOCUMENT PLACEHOLDER

Please review the native document KCPRRCV0042459.xlsx

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Agam Rao, MD
CDR, USPHS
CDC Technical Epi Lead
WA-King County COVID-19 field team

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To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Duchin, Jeff
CC: Bogan, Sharon; Haynes, Benjamin (CDC/OD/OADC)
Subject: Re: Testing at LifeCare

This message from us was supposed to be shared with Lifecare to push out through their email channels to families. I don't know if that happened

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Sent: Wednesday, March 4, 2020 6:28:28 AM

To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Cc: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Bogan, Sharon <Sharon.Bogan@kingcounty.gov>; Haynes, Benjamin (CDC/OD/OADC) <fxq2@cdc.gov>

Subject: Re: Testing at LifeCare

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Just forwarded to you under separate cover the bullets we helped Sharon Bogan draft yesterday about 1:00 Pm. These bullet points are being used by Call Center staff for responding to people connected to LifeCare. It is also being used by the person responding to Media questions that are specific to LifeCare recommendations.

Maybe we should use additional methods for getting the message out? Yield to our communications colleagues for advice on that

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From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Tuesday, March 3, 2020 10:07:13 PM

To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Cc: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>

Subject: Testing at LifeCare

<https://www.nytimes.com/2020/03/03/us/coronavirus-washington-death.html>



Coronavirus Deaths at Nursing Center Came Earlier Than Anyone Knew - The New York Times

The ire of the relatives of those inside was growing with each new revelation. "Because these are elderly and infirm people, it's like we are waiting for them to be picked off, one by one ...

www.nytimes.com

We really need to get better communication to families. If someone sent me a message that was shared with families, i can;t find it in my inbox - please resend.

Thanks _ jeff

Jeffrey S. Duchin, MD (he/him)

Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section

Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Dooling, Kathleen L. (CDC/DDID/NCIRD/DVD)
Sent: Tuesday, February 25, 2020 6:10 AM PST
To: Adam Welch; Al Benson; Duchin, Jeff; Edward Belongia; Fishman, Jay A; Cohen, Jeffrey (NIH/NIAID) [E]; Jeff Curtis; Duchin, Jeff; Jeffrey Curtis; drkellymoore (drkellymoore@yahoo.com); william.schaffner@vumc.org; Ken Schmader; Lee, Grace M; Lisa Prosser; Lynn Bahta; Mary Pat Friedlander; Cieslak, Paul (CDC.state.or.us); Agger, Paula (FDA/CBER); Robin Avery; Sandra Fryhofer; Steve Pergam; Vicki Morrison
CC: Cohn, Amanda (CDC/DDID/NCIRD/OD); Guo, Angela (CDC/DDID/NCIRD/DVD) (CTR); Courtney Jones; Ortega-Sanchez, Ismael (CDC/DDID/NCIRD/DVD); St. Pierre, Jeanette (CDC/DDID/NCIRD/DVD); Kathy Parham; Kroger, Andrew (CDC/DDID/NCIRD/ISD); Patel, Manisha M. (CDC/DDID/NCIRD/DVD); Pallansch, Mark A. (CDC/DDID/NCIRD/DVD); Marin, Mona (CDC/DDID/NCIRD/DVD); Harpaz, Rafael (CDC/DDID/NCIRD/DVD); Rafael Harpaz; Schmid, Scott (CDC/DDID/NCIRD/DVD); Shainoor Ismail; Susan A Bartlett; Harrington, Theresa (CDC/DDID/NCEZID/DHQP); Coleman.Rotstein@uhn.ca; Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Su, John (CDC/DDID/NCEZID/DHQP); MacNeil, Jessica R. (CDC/DDID/NCIRD/OD); Wallace, Megan (CDC/DDID/NCIRD/DVD); Dr. Coleman Rotstein; Anderson, Tara C. (CDC/DDPHSS/CSELS/DHIS)
Subject: HZWG: link to ACIP meeting Feb 26/27, 2020

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Hello Everyone,

Thank you again for your participation during the last WG meeting.

As discussed, here is a link to the ACIP agenda:

<https://www.cdc.gov/vaccines/acip/meetings/downloads/agenda-archive/agenda-2020-02-508.pdf>

And live webcast instruction can be found here:

<https://wwwdev.cdc.gov/vaccines/acip/meetings/webcast-instructions.html>

Of note:

8:30-2:45-Ebola Session, public comment and vote

2:45-3:30- COVID-19 information session

Sincerely,

Kathleen Dooling

Kathleen Dooling, MD MPH

Medical Officer, Measles, Mumps, Rubella, Herpesvirus and Domestic Polio Team

VVPDB/ DVD / NCIRD

Bldg 24 / Room 5211

Vic9@cdc.gov

From: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID)
Sent: Saturday, February 29, 2020 7:16 PM PST
To: Duchin, Jeff
Subject: RE: COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff – I don't know Bruce, but that is very interesting and I agree, would be interesting to see if he has Abs. Reportedly an ELISA screening assay was developed and a neutralizing confirmatory was developed and is being validated at CDC. Certainly sero-surveys should be done – I am focused on the clinical issues – many people are focused on the epidemiology, few care about the patients, but I do. I expect that sero-surveys have already been started in China, but frankly a lot of effort is being put into controlling SARS-CoV-2 spread. We need prospective longitudinal studies to understand the kinetics of antibody response in people with a range of disease severity over time.

Thanks,
Tim

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Saturday, February 29, 2020 9:45 PM
To: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID) <tmu0@cdc.gov>
Subject: Fwd: COVID-19

Tim, I don't know if you know Bruce Davidson but he's a very smart pulmonologist has been in public out for a while. In any case I thought his note about his illness and the fall while visiting China was interesting. I see the service being done or informally collected? Tim, I don't know if you know Bruce Davidson but he's a very smart pulmonologist he's been in public health for a while. In any case I thought his note about his illness in the far while visiting China was interesting. Are you serosurveys being done or informally collected?

Jeff

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
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Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Saturday, February 29, 2020 6:43 PM
To: Bruce Davidson
Subject: Re: COVID-19

Hi, Bruce. Thanks for the reply. I agree with your views on masks hand respirators with the caveat that at this time I'm comfortable limiting the recommendation for respirator use to healthcare providers. Also nice point about the importance of well ventilated spaces, I will incorporate that into my messaging - it only surfaces into my consciousness intermittently.

I do believe serological tests are being used in other countries not sure if we have one here yet but I assume we will soon if not already.

Thanks again for your note, great to hear from you.

Jeff

Jeffrey S. Duchin, MD
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Public Health - Seattle and King County
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E-mail: jeff.duchin@kingcounty.gov

From: Bruce Davidson <brucedavidson@pobox.com>
Sent: Saturday, February 29, 2020 4:11:31 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Subject: Re: COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

1. "Surgical" face masks are for sick community members who must go out, either because they live alone and must get food or go to clinic, or are the healthiest sick person in a house with sicker people and must go out for similar reasons. Wearing a surgical mask helps protect community members (coughs and sneezes are generally forward, into the mask).

2. N95 and similar OSHA-qualified masks protect (somewhat) a healthy person caring for a sick person in the home. 6 to 15 air changes/hour in a sick person's bedroom can't happen in this weather. The N95 masks aren't meant to be worn outside the home. Keeping the caregiver healthy is important for trying to get the sick person improved without putting the sick one in an ER or hospital.

The CDC-OSHA fight/collaboration about TB transmission in ERs leading to the N95 masks (or PAPRs) occurred when I was Phila TB director and on the HHS Advisory Council for the Elimination of TB. I'd also find some gentle way to urge people to minimize time in public rest rooms with poor ventilation, despite the need to wash hands. When I ran Phila's TB Control Program, we had an active pulmonary TB Chinese chef who worked in a very popular Sunday dim sum restaurant that plenty of upscale people lunched at. We had lots of positive tuberculin skin tests out of there.

Two questions if you have time:

1. Does upper room UV inactivate coronavirus, as it does TB bacillus?
2. Is there a test yet for anti-COVID-19 serum antibodies?

Why I ask the 2nd one: I was an invited guest in 4 cities in China (not Wuhan) but on airplanes almost daily from October 13 to 21, 2019. I walked around on Chinese respiratory care wards and ICUs. I was there for my anticoagulant/venous thromboembolism stuff primarily, but visiting pulm/crit care stuff too. After returning, on October 28, on a plane elsewhere, I became pretty sick, with high fever, sweats, shaking chills, sore throat and cough, but no muscle aches throughout 6 days of feeling terrible, and another 10 days of progressively improving cough. I'd had FluAd a month before so thought I had attenuated flu. Back in Seattle, I became sick again for around days, November 25, was better by Dec 3. That one had muscle aches.

So I wonder if I had COVID-19 after my China trip. I didn't transmit to the health care worker or visitor in that East side nursing home, but it would mean that others like me who returned from China in October and early November could be the vectors in the US. I think it would be generally good news to know it's been here for several months without waves of deaths.

Speculation though.

--

Bruce Davidson MD MPH

Email brucedavidson@pobox.com

Tel (+1) 206 799 4513

On Sat, Feb 29, 2020, at 2:43 PM, Duchin, Jeff wrote:

Yeah, Useless is going a tad to far eve for an ex-CDCer. You think they help general public?

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
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From: Bruce Davidson <brucedavidson@pobox.com>

Sent: Saturday, February 29, 2020 2:32:52 PM

To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Subject: COVID-19

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

I just watched the 1 pm press conference. You're doing a fine job, being the leader, under difficult and worsening circumstances, Jeff, and giving excellent advice without telling lies (such as "Masks are useless"). Hang in there, man,

Bruce

--

Bruce Davidson MD MPH

Email brucedavidson@pobox.com

Tel (+1) 206 799 4513

From: Bresee, Joseph (CDC/DDID/NCIRD/ID)
Sent: Monday, February 24, 2020 5:42 PM PST
To: Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Arwady, Allison AA (CDC cityofchicago.org); Balter, Sharon (CDC ph.lacounty.gov); Brian Hiatt; Christine Mahle; Christopher Shields; Conover, Craig (CDC illinois.gov); Debra Wadford; Duchin, Jeff; Edward Desmond; Gail Cooksey; Ghinai, Isaac; Godfred Masinde; Green, Nicole (CDC ph.lacounty.gov); Hector Rivas; Jain, Seema (CDC cdph.ca.gov); Jessica Sell; Justin DeWitt; Kauerauf, Judy (CDC illinois.gov); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Layden, Jennifer (CDC illinois.gov); Layton, Marci (CDC health.nyc.gov); Leslie Chapman; Lindquist, Scott SL (CDC doh.wa.gov); Marelle Fricchione; Meredith Haddix; Molly Lamb; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov); Rose, Laura E. (CDC/DDPHSS/OLSS/OLS); Sarah Park; Black, Stephanie SB (CDC cityofchicago.org); Thomas-Smith, Evonda; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO); Weiss, Don (CDC health.nyc.gov); Zahn, Matthew
CC: Bresee, Joseph (CDC/DDID/NCIRD/ID); Armstrong, Gregory (CDC/DDID/NCEZID/OD); Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM)
Subject: RE: updates on sentinel surveillance activities
Attachments: Community surveillance site guidance for what to do with first case detection_v2.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

All,

Here is the revised version of the document re actions to take now and when a first case is identified in the community for your review. Has more info that represents upcoming CDC thoughts on Comm Mitigation and Health care mitigation. Can make into a table or figure to make more approachable but wanted to get agreeable content first. See what you think and if this is useful for your own planning

Re comms – have submitted edits on all comms materials tonight back to CDC Comms folks. Will let them incorporate that will share with you all tomorrow AM

I think that we have all agreed on a few principals –

- we all have a joint Comms plan, with local jurisdictions being in the lead and CDC supporting you all (that you would announce anything first)
- we have a shared understanding of what actions would be taken if positives are found – the attached doc is for that purpose – but we acknowledge that we will convene when positives occur and think through together as things will change
- CDC will support investigation of early cases as requested by you all.

Finally, I would ask that you all think through funding required for surveillance and response for this project to be ready if and when asked for a proposal by CDC

Finally (really) – Greg Armstrong will be joining the response in my place starting tomorrow. I will linger a bit to support this project but Gayle will continue as CDC POC, and Greg and Stephanie Bialek (EPI-Task Force Lead) will be more present in the discussions going forward. I will fade out for a while but back soon. If you all can include Greg on emails to me, that would be great

Thanks again
Joe

Joseph Bresee, MD
Deputy Incident Manager
CDC 2020 nCoV response

Guidance for public health actions recommended if a SARS-CoV-2 is detected in a person(s) without known risk factor for infection

This draft guidance is to inform activities in response to early cases of COVID-19 in a community or the US that are identified through community-based surveillance. Currently, all confirmed cases of SARS-CoV-2 infection in the US are among persons with exposure to high-risk regions of the world or with direct exposure to a confirmed case. The detection of these cases has been a product of aggressive surveillance of persons with specific exposures, and testing guidance that focuses on such exposures. The US is currently in the transition from Recognition to Initiation interval described in the 2018 FEMA Pandemic Crisis Action Plan.

Several other countries have reported cases that have no known epidemiological link to known risk exposures – e.g. travel or contact with another case. As community surveillance is established, COVID-19 cases may be detected that do not have a discernable epidemiological link to another case or a known risk factor. While control and containment strategies are being employed during this interval, the detection of confirmed cases in the community may indicate early human-to-human spread in the U.S. unlinked to known risk factors, triggering a change in public health response.

This guide contains recommended actions taken by local and national public health officials to investigate and respond to these early cases.

Current situation and response posture - containment

- As of February 23, 2020, 14 cases have been detected among travelers and close contacts of travelers in the US, and 7 cases among persons in cohorts repatriated to the US from Hubei province or a cruise ship in Japan.
- No cases unlinked to epidemiologic risk factors have been detected, largely because testing has been focused on those with such risk factors.
- USG and state and local governments are currently using a containment strategy for addressing nCoV emergence with a goal to slow the introduction and eventual spread of nCoV in the U.S. (aligns with late “Recognition” and early “Initiation” intervals in the U.S.) These efforts are designed to buy time for advancing U.S. preparedness.
- These activities include a focus on identifying persons with possible infection at the border and among close contacts of confirmed cases, with resulting isolation and quarantine as appropriate.
- Containment measures, especially legally enforced quarantine and contact tracing and monitoring are resource intensive activities.

Adjusting response measures with detection of possible community transmission

- As the numbers of COVID-19 cases increase in the U.S., public health measures will be adjusted to accommodate for the changing epidemiology and risks as described in the 2018 FEMA Pandemic Crisis Action Plan and supporting documents. (aligns with “Acceleration” interval in the U.S.)
- A phased transition from the current *containment* approach (i.e., public health managed case- and contact-based efforts for slowing introduction) to a *mitigation* approach (broader community- and individual-based set of interventions that are intended to minimize spread of disease and reduce the impact of illness and death, like efforts for seasonal or pandemic influenza) is recommended as early as possible if there is any evidence of or anticipation of ongoing human-to-human transmission of SARS-CoV-2 in the U.S.

Trigger event – laboratory confirmation of initial case(s) of SARS-CoV-2 from surveillance in community settings = “community cases”

Actions taken **in anticipation** of evidence of first community cases (all sites)

- Surveillance
 - Continue screening of persons travelling from high-risk areas

DRAFT; PRE-DECISIONAL

- provide social distancing guidance to asymptomatic individuals coming to the US from countries with COVID-19 circulation
 - educate providers/health systems to identify, triage, isolate possible cases
 - Refer ill persons for health assessment and testing
- Expand laboratory testing guidance and capabilities to allow for testing of persons with consistent respiratory disease regardless of exposure criteria
 - Obtain EUA approval for community testing
 - Adjust CDC testing criteria
 - Build local level capacity to test
- Initiate testing in outpatient settings in cities/states at high risk for community spread
- Plan for Enhanced Surveillance (below)
- Monitor syndromic surveillance (e.g., ILI) in location and nationwide
- Case and contact management
 - Isolate confirmed cases according to CDC guidance
 - Conduct risk assessment of close contacts and refer for home monitoring and movement restriction according to risk
 - Consider transitioning to voluntary home containment for all persons recommended for legally enforced quarantine
 - Support state and local health departments to monitor person in home isolation or quarantine as appropriate based on current guidance
- Community mitigation (Health care)
 - If a person thinks they are exposed, they should call a care provider before presenting to a facility (urgent care, hospital etc)
 - When scheduling appointments, instruct patients and persons who accompany them to call ahead or inform HCP upon arrival if they have symptoms of any respiratory infection (e.g., cough, runny nose, fever) and to take appropriate preventive actions (e.g., wear a facemask upon entry to contain cough, follow triage procedures).
 - Health systems should plan for increased use of telephone triage and telehealth technology (telemedicine, self checker tools, nurse triage lines) as appropriate and feasible
 - Staff should be trained on how to triage patients upon arrival, patient placement, hand hygiene, use of personal protective equipment, managing visitors, engineering controls and how to monitor and manage exposed, train and educate healthcare personnel, staffing strategies, implementing environmental infection control, and establishing reporting within healthcare facilities to public health. (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control.html>)
 - Plan for ensuring adequate staffing and staff safety in the event of community spread including identifying staff in advance that may care of inpatients, staff teams/rotation etc
 - Refresh health care system/facility response plans (healthcare and hospital preparedness checklist, discussion with healthcare systems etc)
 - For care at home: identify services in the community that may assist with calling to check in on persons, home delivery of goods and medications etc
 - Understanding state level legal authorities that may need to be in place to expand access to care (licensure, alternative standards of care etc)
- Communications
 - Prepare communications plans for identifying first case, from local and national level
 - Prepare communication plan for the public to educate on risk, and personal actions that may be taken
- Community mitigation (non-healthcare)
 - Identify at-risk populations in communities for targeted preparation communications

DRAFT; PRE-DECISIONAL

- Nursing homes, congregate living settings
- Elderly individuals and elderly living at home
- Reinforce messaging about staying home when ill, handwashing, avoidance of ill persons
- Begin to communicate guidance to risk groups regarding actions to take if they get ill
- Prepare local CM guidance in the event of community spread, based on CDC guidance
- Socialize possible CM activities with key partners (e.g. school districts)
- Increase awareness of community and business leaders
- Understanding state level legal authorities that may need to be in place to cancel or postpone events (understand major events)
- Recommend alternative work arrangements

Actions taken once first community case(s) are detected (area of 1st confirmed community case(s))

-the actions below are based on a small number of positives on first testing (e.g. 1-2). If there are a high number of positives in the first batch or several positives in successive batches, the actions below might be modified. For instance, evidence of widespread disease or increasing community transmission might lead to earlier withdrawal of contact investigation, or more aggressive and earlier institution of community measures (e.g. cancelling of mass gatherings). Local and national decisions will necessarily be informed by the testing data, so that the information below are guides that will certainly be revised as data are available and as the national posture changes over time.

- Surveillance
 - Continue screening of persons travelling from high-risk areas
 - Refer ill persons for health assessment and testing
 - Transition to **Enhanced Surveillance** for community cases; Goal – determine breadth of community transmission quickly
 - Increase testing sites and number of specimens from outpatient and inpatient sites
 - CDC – ensure local jurisdictions have access to sufficient testing capacity
 - Increase testing frequency and reporting
 - Monitor syndromic surveillance (e.g., ILI) in location and nationwide
 - Consider monitoring school illnesses/absenteeism rates
- Case and contact management of initial case(s)
 - Assess travel history and other possible risk factors for case(s)
 - Isolate confirmed cases according to CDC guidance
 - Conduct risk assessment of close contacts and refer for home monitoring and movement restriction according to risk
 - CDC: as state/local PH requests, support deployment of team to support local investigation
- Health care
 - Surveillance sites: ensure appropriate IPC in sites initiating Enhanced surveillance
 - Provide appropriate care to case and ensure appropriate IPC in sites of care
 - Enact health care mitigation plans....
 - Refresh health care system/facility response plans
- Communications
 - Release approved official statements
 - Messaging for high-risk groups (e.g. elderly) and LTCFs, etc
- Community mitigation
 - Reinforce messaging about staying home when ill, handwashing, avoidance of ill persons
 - Institute social distancing measures
 - Avoid congregate settings – restaurants, markets, religious gatherings, cultural events
 - Work with local school authorities to turn on distance learning

Commented [PSYM1]: When will that be a reality? Even so, local and state public health labs will soon become overwhelmed, especially if we aren't careful and expectation is that all persons with a febrile respiratory illness should be tested. Problem is that with flu, testing is widely available, so we can conduct our surveillance testing in that background. With COVID-19, only public health labs will have that capacity, so it'll be challenging to comment that we're limiting testing only to certain sites and conditions as demand for testing will likely be high (assuming criteria for testing loosened to the extent that many could qualify for testing).

Commented [BJ(2R2): My idea was that enhanced surveillance wouldn't include testing of everyone, but perhaps expansion to additional clinics/Eds in the city that would be commensurate with testing capacity. We can decide what that might look like but perhaps for now lets say 400 tests per week at that site?

Commented [PSYM3]: FYI, this won't be possible in Hawaii. Unfortunately, our public schools (thanks to "no child left behind" only record excused vs. unexcused absences. We've tried to determine whether we could identify changes related to illness or even vacations, but it's a mess. Our private schools are no better. Most still use paper records.

Commented [BJ(4R4): Was just an example, so have changed

Commented [PSYM5]: ? Can't really enhance without having testing capacity.

Commented [BJ(6R6): As above

Commented [PSYM7]: So what is CDC thinking here? Have been considering this may need to be nuanced depending on numbers detected and whether deidentified vs. identified.

If detection via deidentified specimens:
If only one or two cases in the first batch of 50, of advising community to consider limiting out of home activities to those that are essential (i.e., school, work, grocery shopping), and to try to keep distance from those who are ill. Rather than going out to eat, consider ordering in. ???

If there are 10 (?) or 20 (?) in the first batch, then maybe move to actual recommendations to do so.

If after first one or two positive, no others in subsequent batches (doubtful, but possible), would hold, monitor, and increase surveillance activities. If more positives (whether a couple or many more) in subsequent batches, likely move to recommend limiting out of home activities. If consistently detecting positives with each batch, move to more definitive social distancing measures. Need an alternative, however, to closing schools. Past experience demonstrates that doesn't work because parents have to work to support their families and older kids end up just congregating together in malls, etc. Not the same world as 1918—most women work

Commented [BJ(8R8): Thanks. See preamble

DRAFT, PRE-DECISIONAL

- Recommend alternative work arrangements
- CM activities...;
- Planning/ policy
 - Local/state assessment of needs and request for CDC support
 - Review of local containment/monitoring strategies and assessment of whether changes are warranted
 - Convene calls between early community surveillance site collaborators to share data

Actions taken once first community case(s) are detected (US and local areas where no community cases have been detected)

- Surveillance
 - Continue screening of persons travelling from high-risk areas
 - Refer ill persons for health assessment and testing
 - Prepare for **Enhanced Surveillance** local and in US
 - Monitor syndromic surveillance (e.g., ILI) in location and nationwide
 - Continue community surveillance in other early surveillance sites
 - Expand SARS-CoV-2 surveillance to all PHLs
 - Ready existing platforms for surveillance – e.g. EIP, NVSN, FluSurvNet, NCHS, etc.
 - Monitor school illnesses/absenteeism rates
 - Continue current containment measures
- Case and contact management
 - Continue activities anticipating local spread
- Health care
 - Continue activities anticipating local spread
- Communications
 - Continue activities anticipating local spread
- Community mitigation
 - Continue activities anticipating local spread
- Planning/ policy
 - Daily convening of USG leaders to assess for the need for changes in local and national response posture
 - Ensure USG resources are made available to local jurisdictions to enable planned responses

Commented [PSVM9]: Am assuming you mean there are positive specimens from multiple sites/states.

Then we definitely all need to move toward more definitive social distancing measures.

Commented [BJ/10R10]: No. actually this was actions for the non-involved sites.

From: Stone, Nimalie (CDC/DDID/NCEZID/DHQP)
Sent: Tuesday, March 3, 2020 11:07 AM PST
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Duchin, Jeff; Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
CC: Srinivasan, Arjun (CDC/DDID/NCEZID/DHQP); Kallen, Alexander (CDC/DDID/NCEZID/DHQP)
Subject: Fwd: WA Nursing Board Quality Commission

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff,
Here's the information from the nursing home related to their request to have RNs from other states to come provide clinical support here in Washington.
Todd Fletcher is the senior regional person for LifeCare Centers corporate, his contact information is included as a POC to speak to state leadership re: reimbursement issues.
Thanks,
Nimalie

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From: Fletcher, Todd <Todd_Fletcher@lcca.com>
Sent: Tuesday, March 3, 2020 10:55:04 AM
To: Stone, Nimalie (CDC/DDID/NCEZID/DHQP) <ei2@cdc.gov>
Subject: WA Nursing Board Quality Commission

Dr. Stone,

Here is the email at the bottom from DOH Nursing Board. Thanks.

Todd

Todd W. Fletcher
Vice President of Western Operations
Life Care Centers of America
33528 6th Ave. South
Federal Way, WA 98003
253-952-2184
253-733-3240 fax
Todd_Fletcher@LCCA.com

From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 4:28 PM
To: Hulan, Carol <Carol_Hulan@lcca.com>; Fletcher, Todd <Todd_Fletcher@lcca.com>
Subject: RE: Life Care Center at Kirkland.

CAUTION: This email did not originate from a Life Care email account, even if it appears to have been sent from a Life Care associate. Do not click links or open attachments unless you are expecting this email and know the content is safe. If in doubt, report using the Phish Alert toolbar button or forward the email to securityreview@lcca.com for analysis.

Carol, I will stick around the office for a while. If I hear anything positive from them I will connect the appropriate person with you via email and then you can work out any details with them. I am hopeful, but have learned never to underestimate the State of Washington's love of "process".

From: Hulgan, Carol <Carol_Hulgan@lcca.com>
Sent: Monday, March 2, 2020 4:20 PM
To: Robin Dale <robindale@whca.org>; Fletcher, Todd <Todd_Fletcher@lcca.com>
Subject: RE: Life Care Center at Kirkland.

Thank you so much!!

Carol Hulgan, RN, CHC, LNCC
Senior Vice President Clinical Services
carol_hulgan@lcca.com
Life Care Centers of America
3001 Keith Street NW
Cleveland, TN 37312
423/473-5551 Office
423/339-8326 Fax

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From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 7:18 PM
To: Fletcher, Todd <Todd_Fletcher@lcca.com>
Cc: Hulgan, Carol <Carol_Hulgan@lcca.com>
Subject: FW: Life Care Center at Kirkland.

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See below. Rep. Cody is the most powerful figure in the legislature. She is working on it. I think my email (below) got some attention.

From: Cody, Rep. Eileen <Eileen.Cody@leg.wa.gov>
Sent: Monday, March 2, 2020 4:07 PM
To: Robin Dale <robindale@whca.org>
Subject: RE: Life Care Center at Kirkland.

Robin I have asked the department to look at applying our emergency compacts that we have with all 50 states and how it could help.

From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 4:01 PM
To: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Rep. Eileen <Eileen.Cody@leg.wa.gov>; Cleveland, Sen. Annette <Annette.Cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>; Zawislak, Amber (DOH) <Amber.Zawislak@DOH.WA.GOV>; Peterson, Kristin I (DOH) <Kristin.Peterson@DOH.WA.GOV>; Woodard, Catherine (DOH) <Catherine.Woodard@DOH.WA.GOV>; McLellan, Robert (DOH) <robert.mclellan@doh.wa.gov>; Matthews, Micah T (WMC) <micah.matthews@wmc.wa.gov>; Young, T Diane (DOH) <Diane.Young@DOH.WA.GOV>
Subject: RE: Life Care Center at Kirkland.

Paula, thank you for your response. Currently, LCCA has 6 nurses (2 sets of 3 for 5 days straight) ready to go from Colorado. These folks can be ready to deploy on Wednesday. These individuals understand the biggest need is for night 12 hr shifts and they are a go. Do you have a sense how long the process outlined below will take? Thank you, Robin.

From: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Sent: Monday, March 2, 2020 3:29 PM
To: Robin Dale <robindale@whca.org>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Eileen <eileen.cody@leg.wa.gov>; Cleveland, Annette <annette.cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>; Zawislak, Amber (DOH) <Amber.Zawislak@DOH.WA.GOV>; Peterson, Kristin I (DOH) <Kristin.Peterson@DOH.WA.GOV>; Woodard, Catherine (DOH) <Catherine.Woodard@DOH.WA.GOV>; McLellan, Robert (DOH) <robert.mclellan@doh.wa.gov>; Matthews, Micah T (WMC) <micah.matthews@wmc.wa.gov>; Young, T Diane (DOH) <Diane.Young@DOH.WA.GOV>
Subject: RE: Life Care Center at Kirkland.

Dear Robin: Thank you for your message.

The Nursing Care Quality Assurance Commission, in response to the state of emergency, is announcing the Online Application Portal. The use of the Online Application Portal decreases the amount of time needed to mail an application and provides an opportunity for applicants to pay online for an initial application.

For directions on how to use the Online Application Portal and a link to the system, please review the attached document. <https://www.doh.wa.gov/Portals/1/Documents/6000/669419.pdf>

If you have changed your last name (by marriage, divorce or choice), please be aware this may cause delays in processing due to software complications. List your current last name on the application.

Our office must complete a Washington State Patrol (WSP) and National Practitioners DataBank (NPDB) background check on all applicants prior to issuing a temporary practice permit. Applicants with out of state addresses must submit their fingerprints for an FBI fingerprint background check. If the applicant

meets all licensing criteria, with the exception of a completed FBI Fingerprint background check, our office will issue a temporary practice permit. Our office sends the fingerprint cards to the applicant after receipt of an initial application. The sooner the applicant completes the fingerprints, the sooner the application for can be reviewed for a decision to grant or deny the permanent license.

We continue to evaluate other options and will inform you as soon as possible if there are any changes.

For questions, please contact our office at 360-236-4703.

Paula R. Meyer MSN, RN, FRE

Executive Director

Nursing Care Quality Assurance Commission

Washington State Department of Health

Paula.meyer@doh.wa.gov

360-236-4714 | www.doh.wa.gov/LicensesPermitsandCertificates/NursingCommission



From: Robin Dale [<mailto:robindale@whca.org>]

Sent: Monday, March 2, 2020 2:00 PM

To: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>

Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Eileen <eileen.cody@leg.wa.gov>; Cleveland, Annette <annette.cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>

Subject: Life Care Center at Kirkland.

Importance: High

Dear Ms. Meyer,

We write in reference to the ongoing Covid-19 outbreak at Life Care Center of Kirkland.

We have been informed that Life Care Center of Kirkland is facing the imminent prospect of a nursing shortage. The center is anticipating the need for additional nursing staff to deal with the current Covid-19 outbreak. Due to the current statewide nursing shortage and compounded by the fact that individuals on the nursing staff at Life Care Center of Kirkland are choosing not to work at the facility due to the ongoing outbreak, Life Care Centers of America (LCCA) is attempting to attract additional nurses. As a national company, LCCA has the ability to bring in additional nurses from sister facilities outside the state and it is prepared to do so.

Earlier today, LCCA was reminded by a representative of the Washington Nursing Care Quality Assurance Commission (NCQAC) that Washington State is not a signatory to the Nursing Compact and therefore nurses from out of state cannot practice in Washington absent certification from the Washington State Board of Nursing.

LCCA has asked for an expedited process to get some needed nursing staff, and has been told that currently there is no expedited process. We understand that LCCA has been informed that, even if an expedited process is approved, any near term or immediate relief is not feasible.

LCCA has been told that NCQAC is meeting this afternoon and they understand that the Commission may take up this issue. We strongly urge the Commission to do so, and thus I reach out with the urgent request for the Department of Health and the Nursing Care Quality Assurance Commission to immediately engage in developing and implementing an expedited process for approving out-of-state nurses for immediate service in Washington State, with a particular focus on getting workers approved for Life Care Centers of Kirkland.

We stand ready to work with both the Department of Health and NCQAC to ensure that critically ill patients do not go without the care and services that are more necessary than ever under this outbreak. This situation should and must be resolved with great urgency.

Please let me know if you have questions. I am standing by to work with you today.

Robin

Robin Dale

President/CEO

Washington Health Care Association

t (800) 562-6170, ext. 101



From: Park, Sarah Y., MD
Sent: Tuesday, February 25, 2020 1:25 AM PST
To: Bresee, Joseph (CDC/DDID/NCIRD/ID); Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Arwady, Allison AA (CDC cityofchicago.org); Balter, Sharon (CDC ph.lacounty.gov); Brian Hiatt; Christine Mahle; Christopher Shields; Conover, Craig (CDC illinois.gov); Debra Wadford; Duchin, Jeff; Desmond, Edward; Gail Cooksey; Ghinai, Isaac; Godfred Masinde; Green, Nicole (CDC ph.lacounty.gov); Hector Rivas; Jain, Seema (CDC cdph.ca.gov); Jessica Sell; Justin DeWitt; Kauerauf, Judy (CDC illinois.gov); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Layden, Jennifer (CDC illinois.gov); Layton, Marci (CDC health.nyc.gov); Leslie Chapman; Lindquist, Scott SL (CDC doh.wa.gov); Marelle Fricchione; Meredith Haddix; Molly Lamb; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov); Rose, Laura E. (CDC/DDPHSS/OLSS/OLS); Black, Stephanie SB (CDC cityofchicago.org); Thomas-Smith, Evonda; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO); Weiss, Don (CDC health.nyc.gov); Zahn, Matthew
CC: Armstrong, Gregory (CDC/DDID/NCEZID/OD); Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM)
Subject: RE: updates on sentinel surveillance activities
Attachments: Community surveillance site guidance for what to do with first case detection_v2.docx

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Added just a couple comments to distinguish from my previous comments you kept in the document. Regarding social distancing measures, the challenge may be getting people to adhere to them if they're difficult to maintain. Distance learning sounds ideal, but unless work places can all accommodate a parent working at home to watch their child, that may not work. Then, there's the question of what exactly is the role of children in transmission. If they're tending to be asymptomatic/mild and have little or no role, then great. If they're asymptomatic/mild but have even some role in transmission, then that's going to be a huge challenge.

Sarah Y. Park, MD, FAAP
State Epidemiologist
Chief, Disease Outbreak Control Division
Hawaii Department of Health

An ounce of prevention is worth a pound of cure. - Benjamin Franklin

"Like" us on the [Disease Outbreak Control Division's Facebook Page](http://health.hawaii.gov/docd/)
<http://health.hawaii.gov/docd/>



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From: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>
Sent: Monday, February 24, 2020 3:42 PM
To: Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Arwady, Allison AA (CDC cityofchicago.org) <allison.arwady@cityofchicago.org>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; Brian Hiatt <brian.hiatt@doh.wa.gov>; Christine Mahle <cmahle@health.nyc.gov>; Christopher Shields <christopher.shields@cityofchicago.org>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Debra Wadford <debra.wadford@cdph.ca.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Desmond, Edward <edward.desmond@doh.hawaii.gov>; Gail Cooksey <Gail.Cooksey@cdph.ca.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Godfred Masinde <godfred.masinde@sfdph.org>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Jain, Seema

(CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Jessica Sell <jsell@health.nyc.gov>; Justin DeWitt <Justin.Dewitt@Illinois.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Kuhnert-Tallman, Wendi (CDC/DDID/OD) <wdk1@cdc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Leslie Chapman <Leslie.Chapman@Illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Marelle Fricchione <Marielle.Fricchione@cityofchicago.org>; Meredith Haddix <MHaddix@ph.lacounty.gov>; Molly Lamb <Molly.Lamb@Illinois.gov>; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Rose, Laura E. (CDC/DDPHSS/OLSS/OLS) <zey9@cdc.gov>; Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Black, Stephanie SB (CDC cityofchicago.org) <stephanie.black@cityofchicago.org>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO) <hgq2@cdc.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Zahn, Matthew <MZahn@ochca.com>
Cc: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM) <zqg7@cdc.gov>

Subject: [EXTERNAL] RE: updates on sentinel surveillance activities

All,

Here is the revised version of the document re actions to take now and when a first case is identified in the community for your review. Has more info that represents upcoming CDC thoughts on Comm Mitigation and Health care mitigation. Can make into a table or figure to make more approachable but wanted to get agreeable content first. See what you think and if this is useful for your own planning

Re comms – have submitted edits on all comms materials tonight back to CDC Comms folks. Will let them incorporate that will share with you all tomorrow AM

I think that we have all agreed on a few principals –

- we all have a joint Comms plan, with local jurisdictions being in the lead and CDC supporting you all (that you would announce anything first)
- we have a shared understanding of what actions would be taken if positives are found – the attached doc is for that purpose – but we acknowledge that we will convene when positives occur and think through together as things will change
- CDC will support investigation of early cases as requested by you all.

Finally, I would ask that you all think through funding required for surveillance and response for this project to be ready if and when asked for a proposal by CDC

Finally (really) – Greg Armstrong will be joining the response in my place starting tomorrow. I will linger a bit to support this project but Gayle will continue as CDC POC, and Greg and Stephanie Bialek (EPI-Task Force Lead) will be more present in the discussions going forward. I will fade out for a while but back soon. If you all can include Greg on emails to me, that would be great

Thanks again
Joe

Joseph Bresee, MD
Deputy Incident Manager
CDC 2020 nCoV response

Guidance for public health actions recommended if a SARS-CoV-2 is detected in a person(s) without known risk factor for infection

This draft guidance is to inform activities in response to early cases of COVID-19 in a community or the US that are identified through community-based surveillance. Currently, all confirmed cases of SARS-CoV-2 infection in the US are among persons with exposure to high-risk regions of the world or with direct exposure to a confirmed case. The detection of these cases has been a product of aggressive surveillance of persons with specific exposures, and testing guidance that focuses on such exposures. The US is currently in the transition from Recognition to Initiation interval described in the 2018 FEMA Pandemic Crisis Action Plan.

Several other countries have reported cases that have no known epidemiological link to known risk exposures – e.g. travel or contact with another case. As community surveillance is established, COVID-19 cases may be detected that do not have a discernable epidemiological link to another case or a known risk factor. While control and containment strategies are being employed during this interval, the detection of confirmed cases in the community may indicate early human-to-human spread in the U.S. unlinked to known risk factors, triggering a change in public health response.

This guide contains recommended actions taken by local and national public health officials to investigate and respond to these early cases.

Current situation and response posture - containment

- As of February 23, 2020, 14 cases have been detected among travelers and close contacts of travelers in the US, and 7 cases among persons in cohorts repatriated to the US from Hubei province or a cruise ship in Japan.
- No cases unlinked to epidemiologic risk factors have been detected, largely because testing has been focused on those with such risk factors.
- USG and state and local governments are currently using a containment strategy for addressing nCoV emergence with a goal to slow the introduction and eventual spread of nCoV in the U.S. (aligns with late “Recognition” and early “Initiation” intervals in the U.S.) These efforts are designed to buy time for advancing U.S. preparedness.
- These activities include a focus on identifying persons with possible infection at the border and among close contacts of confirmed cases, with resulting isolation and quarantine as appropriate.
- Containment measures, especially legally enforced quarantine and contact tracing and monitoring are resource intensive activities.

Adjusting response measures with detection of possible community transmission

- As the numbers of COVID-19 cases increase in the U.S., public health measures will be adjusted to accommodate for the changing epidemiology and risks as described in the 2018 FEMA Pandemic Crisis Action Plan and supporting documents. (aligns with “Acceleration” interval in the U.S.)
- A phased transition from the current *containment* approach (i.e., public health managed case- and contact-based efforts for slowing introduction) to a *mitigation* approach (broader community- and individual-based set of interventions that are intended to minimize spread of disease and reduce the impact of illness and death, like efforts for seasonal or pandemic influenza) is recommended as early as possible if there is any evidence of or anticipation of ongoing human-to-human transmission of SARS-CoV-2 in the U.S.

Trigger event – laboratory confirmation of initial case(s) of SARS-CoV-2 from surveillance in community settings = “community cases”

Actions taken **in anticipation** of evidence of first community cases (all sites)

- Surveillance
 - Continue screening of persons travelling from high-risk areas

DRAFT; PRE-DECISIONAL

- provide social distancing guidance to asymptomatic individuals coming to the US from countries with COVID-19 circulation
 - educate providers/health systems to identify, triage, isolate possible cases
 - Refer ill persons for health assessment and testing
- Expand laboratory testing guidance and capabilities to allow for testing of persons with consistent respiratory disease regardless of exposure criteria
 - Obtain EUA approval for community testing
 - Adjust CDC testing criteria
 - Build local level capacity to test
- Initiate testing in outpatient settings in cities/states at high risk for community spread
- Plan for Enhanced Surveillance (below)
- Monitor syndromic surveillance (e.g., ILI) in location and nationwide
- Case and contact management
 - Isolate confirmed cases according to CDC guidance
 - Conduct risk assessment of close contacts and refer for home monitoring and movement restriction according to risk
 - Consider transitioning to voluntary home containment for all persons recommended for legally enforced quarantine
 - Support state and local health departments to monitor person in home isolation or quarantine as appropriate based on current guidance
- Community mitigation (Health care)
 - If a person thinks they are exposed, they should call a care provider before presenting to a facility (urgent care, hospital etc)
 - When scheduling appointments, instruct patients and persons who accompany them to call ahead or inform HCP upon arrival if they have symptoms of any respiratory infection (e.g., cough, runny nose, fever) and to take appropriate preventive actions (e.g., wear a facemask upon entry to contain cough, follow triage procedures).
 - Health systems should plan for increased use of telephone triage and telehealth technology (telemedicine, self checker tools, nurse triage lines) as appropriate and feasible
 - Staff should be trained on how to triage patients upon arrival, patient placement, hand hygiene, use of personal protective equipment, managing visitors, engineering controls and how to monitor and manage exposed, train and educate healthcare personnel, staffing strategies, implementing environmental infection control, and establishing reporting within healthcare facilities to public health. (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control.html>)
 - Plan for ensuring adequate staffing and staff safety in the event of community spread including identifying staff in advance that may care of inpatients, staff teams/rotation etc
 - Refresh health care system/facility response plans (healthcare and hospital preparedness checklist, discussion with healthcare systems etc)
 - For care at home: identify services in the community that may assist with calling to check in on persons, home delivery of goods and medications etc
 - Understanding state level legal authorities that may need to be in place to expand access to care (licensure, alternative standards of care etc)
- Communications
 - Prepare communications plans for identifying first case, from local and national level
 - Prepare communication plan for the public to educate on risk, and personal actions that may be taken
- Community mitigation (non-healthcare)
 - Identify at-risk populations in communities for targeted preparation communications

DRAFT; PRE-DECISIONAL

- Nursing homes, congregate living settings
- Elderly individuals and elderly living at home
- Reinforce messaging about staying home when ill, handwashing, avoidance of ill persons
- Begin to communicate guidance to risk groups regarding actions to take if they get ill
- Prepare local CM guidance in the event of community spread, based on CDC guidance
- Socialize possible CM activities with key partners (e.g. school districts)
- Increase awareness of community and business leaders
- Understanding state level legal authorities that may need to be in place to cancel or postpone events (understand major events)
- Recommend alternative work arrangements

Actions taken once first community case(s) are detected (area of 1st confirmed community case(s))

-the actions below are based on a small number of positives on first testing (e.g. 1-2). If there are a high number of positives in the first batch or several positives in successive batches, the actions below might be modified. For instance, evidence of widespread disease or increasing community transmission might lead to earlier withdrawal of contact investigation, or more aggressive and earlier institution of community measures (e.g. cancelling of mass gatherings). Local and national decisions will necessarily be informed by the testing data, so that the information below are guides that will certainly be revised as data are available and as the national posture changes over time.

- Surveillance
 - Continue screening of persons travelling from high-risk areas
 - Refer ill persons for health assessment and testing
 - Transition to **Enhanced Surveillance** for community cases; Goal – determine breadth of community transmission quickly
 - Increase testing sites and number of specimens from outpatient and inpatient sites
 - CDC – ensure local jurisdictions have access to sufficient testing capacity
 - Increase testing frequency and reporting
 - Monitor syndromic surveillance (e.g., ILI) in location and nationwide
 - Consider monitoring school illnesses/absenteeism rates
- Case and contact management of initial case(s)
 - Assess travel history and other possible risk factors for case(s)
 - Isolate confirmed cases according to CDC guidance
 - Conduct risk assessment of close contacts and refer for home monitoring and movement restriction according to risk
 - CDC: as state/local PH requests, support deployment of team to support local investigation
- Health care
 - Surveillance sites: ensure appropriate IPC in sites initiating Enhanced surveillance
 - Provide appropriate care to case and ensure appropriate IPC in sites of care
 - Enact health care mitigation plans....
 - Refresh health care system/facility response plans
- Communications
 - Release approved official statements
 - Messaging for high-risk groups (e.g. elderly) and LTCFs, etc
- Community mitigation
 - Reinforce messaging about staying home when ill, handwashing, avoidance of ill persons
 - Institute social distancing measures
 - Avoid congregate settings – restaurants, markets, religious gatherings, cultural events
 - Work with local school authorities to turn on distance learning

Commented [PSYM1]: Not all “older adults with underlying chronic conditions” are in these settings. In fact many are out and about in our communities—either living independently or with family. Targeting these groups sends the wrong message that only these are at risk. Consider there are quite a lot of people in the community now who regularly take some sort of immunomodulating medication (e.g., for psoriasis).

Commented [PSYM2]: When will that be a reality? Even so, local and state public health labs will soon become overwhelmed, especially if we aren’t careful and expectation is that all persons with a febrile respiratory illness should be tested. Problem is that with flu, testing is widely available, so we can conduct our surveillance testing in that background. With COVID-19, only public health labs will have that capacity, so it’ll be challenging to comment that we’re limiting testing only to certain sites and conditions as demand for testing will likely be high (assuming criteria for testing loosened to the extent that many could qualify for testing).

Commented [BJ(3R3)]: My idea was that enhanced surveillance wouldn’t include testing of everyone, but perhaps expansion to additional clinics/Eds in the city that would be commensurate with testing capacity. We can decide what that might look like but perhaps for now lets say 400 tests per week at that site?

Commented [PSYM4]: FYI, this won’t be possible in Hawaii. Unfortunately, our public schools (thanks to “no child left behind” only record excused vs. unexcused absences. We’ve tried to determine whether we could identify changes related to illness or even vacations, but it’s a mess. Our private schools are no better. Most still use paper records.

Commented [BJ(5R5)]: Was just an example, so have changed

Commented [PSYM6]: ? Can’t really enhance without having testing capacity.

Commented [BJ(7R7)]: As above

Commented [PSYM8]: So what is CDC thinking here? Have been considering this may need to be nuanced depending on numbers detected and whether deidentified vs. identified.

If detection via deidentified specimens:
If only one or two cases in the first batch of 50, of advising community to *consider* limiting out of home activities to those that are essential (i.e., school, work, grocery shopping), and to try to keep distance from those who are ill. Rather than going out to eat, consider ordering in. ???

If there are 10 (?) or 20 (?) in the first batch, then maybe move to actual recommendations to do so.

If after first one or two positive, no others in subsequent batches (doubtful, but possible), would hold, monitor, and

Commented [BJ(9R9)]: Thanks. See preamble

DRAFT; PRE-DECISIONAL

- Recommend alternative work arrangements
- CM activities...;
- Planning/ policy
 - Local/state assessment of needs and request for CDC support
 - Review of local containment/monitoring strategies and assessment of whether changes are warranted
 - Convene calls between early community surveillance site collaborators to share data

Actions taken once first community case(s) are detected (US and local areas where no community cases have been detected)

- Surveillance
 - Continue screening of persons travelling from high-risk areas
 - Refer ill persons for health assessment and testing
 - Prepare for **Enhanced Surveillance** local and in US
 - Monitor syndromic surveillance (e.g., ILI) in location and nationwide
 - Continue community surveillance in other early surveillance sites
 - Expand SARS-CoV-2 surveillance to all PHLs
 - Ready existing platforms for surveillance – e.g. EIP, NVSN, FluSurvNet, NCHS, etc.
 - Monitor school illnesses/absenteeism rates
 - Continue current containment measures
 - Case and contact management
 - Continue activities anticipating local spread
 - Health care
 - Continue activities anticipating local spread
 - Communications
 - Continue activities anticipating local spread
 - Community mitigation
 - Continue activities anticipating local spread
 - Planning/ policy
 - Daily convening of USG leaders to assess for the need for changes in local and national response posture
 - Ensure USG resources are made available to local jurisdictions to enable planned responses

Commented [PSVM10]: Am assuming you mean there are positive specimens from multiple sites/states.

Then we definitely all need to move toward more definitive social distancing measures.

Commented [BJ/11R11]: No. actually this was actions for the non-involved sites.

Commented [PSVM12R11]: Ah, would think then if at least a couple of us had positives, those non-involved areas should also consider beginning to advise limiting at least some amount of nonessential activities outside the home. Given how interconnected we all are—even Hawaii since everyone comes here to vacation, especially those on the West Coast (CA is are biggest source of visitors, by the way)—signs of community spread in the sentinel sites means it'll soon spread to other areas of the country if not already.

From: Baliga, Christopher
Sent: Monday, March 2, 2020 10:43 PM PST
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP)
CC: D'Angeli, Marisa (DOH) (Marisa.DAngeli@DOH.WA.GOV); Duchin, Jeff
Subject: Re: Connecting you
Attachments: image001.jpg

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How often are we testing the positive patients? Are we testing till negative anymore?

Chris

On Mar 2, 2020, at 8:35 PM, Baliga, Christopher <Christopher.Baliga@virginiamason.org> wrote:

Fair enough. Marisa, balls in your court.

Thank you!

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) [mailto:jqj9@cdc.gov]
Sent: Monday, March 02, 2020 8:34 PM
To: Baliga, Christopher <Christopher.Baliga@virginiamason.org>
Cc: D'Angeli, Marisa (DOH) (Marisa.DAngeli@DOH.WA.GOV) <Marisa.DAngeli@DOH.WA.GOV>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Subject: RE: Connecting you

**** STOP. THINK. External Email ****

Chris-
I might yield to my lab colleagues on this one
JJ

From: Baliga, Christopher <Christopher.Baliga@virginiamason.org>
Sent: Monday, March 2, 2020 11:21 PM
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Cc: D'Angeli, Marisa (DOH) (Marisa.DAngeli@DOH.WA.GOV) <Marisa.DAngeli@DOH.WA.GOV>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Subject: RE: Connecting you

Similar question, but the UW is only running NP swabs, not OP. I can't believe the two really make much difference, but do you know the discordance rate of the NP and OP swabs?

Looping in Marisa at the DoH lab. Any ideas Marisa?

Thanks!

From: Baliga, Christopher
Sent: Monday, March 02, 2020 7:08 PM
To: 'Jernigan, John A. (CDC/DDID/NCEZID/DHQP)' <jqj9@cdc.gov>
Subject: FW: Connecting you

Hi John,

I don't think there is an answer to this question, but

Pts with negative COVID-19 results, either through the CDC, WA DoH, or the University of Washington. How reliable is that? Do we know the false negative rate (or even the false positive?).

If you know great. If not that's ok too.

Thanks,
Chris

Chris Baliga, MD

Infectious Diseases
Medical Director of Infection Prevention and Employee Health
<image001.jpg>

Virginia Mason Hospital & Seattle Medical Center

1100 9th Ave | H7-ID | Seattle, WA 98101
(206) 341-1617 office | (206) 341-0846 clinic | (206) 223-6814 fax
VirginiaMason.org

From: Stone, Nimalie (CDC/DDID/NCEZID/DHQP) [<mailto:ey2@cdc.gov>]
Sent: Monday, March 02, 2020 12:48 PM
To: Baliga, Christopher <Christopher.Baliga@virginiamason.org>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Reddy, Sujana C. (CDC/DDID/NCEZID/DHQP) <kuj0@cdc.gov>
Subject: Connecting you

**** STOP. THINK. External Email ****

Chris,

Here are the email contacts for Sujan Reddy, John Jernigan, and myself.

Thanks,

Nimalie D. Stone, MD, MS
Team Lead, Long-term Care
Prevention and Response Branch
Division of Healthcare Quality Promotion
Centers for Disease Control and Prevention
Email: nstone@cdc.gov
Office: 404-639-4757

Confidentiality Disclaimer:

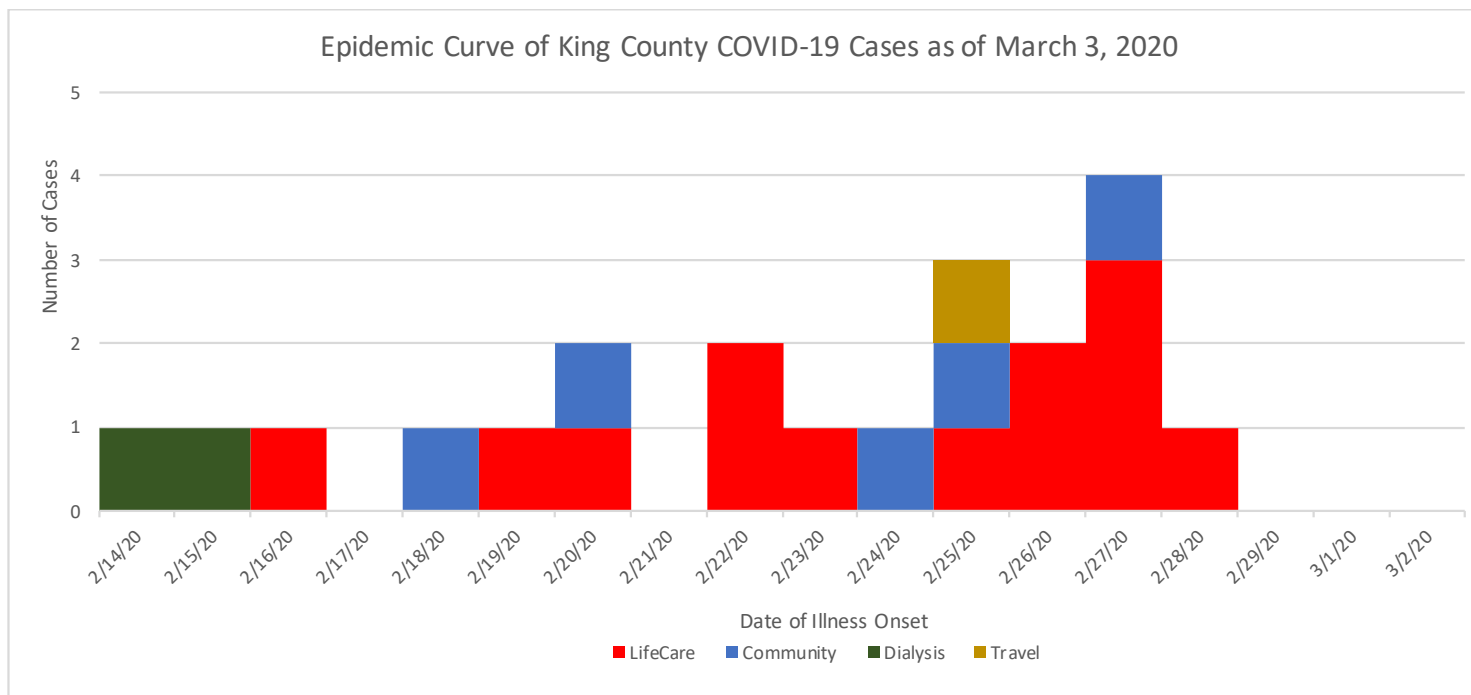
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If you need emergency attention, call 911.

Date LifeCare

2/14/20
2/15/20
2/16/20
2/17/20
2/18/20
2/19/20
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2/22/20
2/23/20
2/24/20
2/25/20
2/26/20
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2/29/20
3/1/20
3/2/20



From: Stone, Nimalie (CDC/DDID/NCEZID/DHQP)
Sent: Tuesday, March 3, 2020 1:29 PM PST
To: D'Angeli, Marisa (DOH)
CC: Brostrom-Smith, Claire; Duchin, Jeff; Montgomery, Patricia A (DOH)
Subject: FW: WA Nursing Board Quality Commission

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Hi Marisa,
Thanks so much for your assistance escalating the request to the WA Nursing Board from LifeCare Center of Kirkland to allow clinicians from out of state to provide clinical services to support care of residents in this center since their workforce has been impacted by the COVID-19 outbreak. Please see the email chain below for more context. I'm copying Jeff and Claire from King County along with Patty so they know that you are in the loop and working on this issue.

Let us know if you need anything to help support or justify the urgency of this request.
Best wishes,
Nimalie

From: Fletcher, Todd <Todd_Fletcher@lcca.com>
Sent: Tuesday, March 3, 2020 1:55 PM
To: Stone, Nimalie (CDC/DDID/NCEZID/DHQP) <ei2@cdc.gov>
Subject: WA Nursing Board Quality Commission

Dr. Stone,

Here is the email at the bottom from DOH Nursing Board. Thanks.

Todd

Todd W. Fletcher
Vice President of Western Operations
Life Care Centers of America
33528 6th Ave. South
Federal Way, WA 98003
253-952-2184
253-733-3240 fax
Todd_Fletcher@LCCA.com

From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 4:28 PM
To: Hulan, Carol <Carol_Hulan@lcca.com>; Fletcher, Todd <Todd_Fletcher@lcca.com>
Subject: RE: Life Care Center at Kirkland.

CAUTION: This email did not originate from a Life Care email account, even if it appears to have been sent from a Life Care associate. Do not click links or open attachments unless you are expecting this email and know the content is safe. If in doubt, report using the Phish Alert toolbar button or forward the email to securityreview@lcca.com for analysis.

Carol, I will stick around the office for a while. If I hear anything positive from them I will connect the appropriate person with you via email and then you can work out any details with them. I am hopeful, but have learned never to underestimate the State of Washington's love of "process".

From: Hulgan, Carol <Carol_Hulgan@lcca.com>
Sent: Monday, March 2, 2020 4:20 PM
To: Robin Dale <robindale@whca.org>; Fletcher, Todd <Todd_Fletcher@lcca.com>
Subject: RE: Life Care Center at Kirkland.

Thank you so much!!

Carol Hulgan, RN, CHC, LNCC
Senior Vice President Clinical Services
carol_hulgan@lcca.com
Life Care Centers of America
3001 Keith Street NW
Cleveland, TN 37312
423/473-5551 Office
423/339-8326 Fax

Harmony	Competition	Consistency	Activator	Empathy
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From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 7:18 PM
To: Fletcher, Todd <Todd_Fletcher@lcca.com>
Cc: Hulgan, Carol <Carol_Hulgan@lcca.com>
Subject: FW: Life Care Center at Kirkland.

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See below. Rep. Cody is the most powerful figure in the legislature. She is working on it. I think my email (below) got some attention.

From: Cody, Rep. Eileen <Eileen.Cody@leg.wa.gov>
Sent: Monday, March 2, 2020 4:07 PM
To: Robin Dale <robindale@whca.org>
Subject: RE: Life Care Center at Kirkland.

Robin I have asked the department to look at applying our emergency compacts that we have with all 50 states and how it could help.

From: Robin Dale <robindale@whca.org>
Sent: Monday, March 2, 2020 4:01 PM
To: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Rep. Eileen <Eileen.Cody@leg.wa.gov>; Cleveland, Sen. Annette <Annette.Cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>; Zawislak, Amber (DOH) <Amber.Zawislak@DOH.WA.GOV>; Peterson, Kristin I (DOH) <Kristin.Peterson@DOH.WA.GOV>; Woodard, Catherine (DOH) <Catherine.Woodard@DOH.WA.GOV>; McLellan, Robert (DOH) <robert.mclellan@doh.wa.gov>; Matthews, Micah T (WMC) <micah.matthews@wmc.wa.gov>; Young, T Diane (DOH) <Diane.Young@DOH.WA.GOV>
Subject: RE: Life Care Center at Kirkland.

Paula, thank you for your response. Currently, LCCA has 6 nurses (2 sets of 3 for 5 days straight) ready to go from Colorado. These folks can be ready to deploy on Wednesday. These individuals understand the biggest need is for night 12 hr shifts and they are a go. Do you have a sense how long the process outlined below will take? Thank you, Robin.

From: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>
Sent: Monday, March 2, 2020 3:29 PM
To: Robin Dale <robindale@whca.org>
Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Eileen <eileen.cody@leg.wa.gov>; Cleveland, Annette <annette.cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>; Zawislak, Amber (DOH) <Amber.Zawislak@DOH.WA.GOV>; Peterson, Kristin I (DOH) <Kristin.Peterson@DOH.WA.GOV>; Woodard, Catherine (DOH) <Catherine.Woodard@DOH.WA.GOV>; McLellan, Robert (DOH) <robert.mclellan@doh.wa.gov>; Matthews, Micah T (WMC) <micah.matthews@wmc.wa.gov>; Young, T Diane (DOH) <Diane.Young@DOH.WA.GOV>
Subject: RE: Life Care Center at Kirkland.

Dear Robin: Thank you for your message.

The Nursing Care Quality Assurance Commission, in response to the state of emergency, is announcing the Online Application Portal. The use of the Online Application Portal decreases the amount of time needed to mail an application and provides an opportunity for applicants to pay online for an initial application.

For directions on how to use the Online Application Portal and a link to the system, please review the attached document. <https://www.doh.wa.gov/Portals/1/Documents/6000/669419.pdf>

If you have changed your last name (by marriage, divorce or choice), please be aware this may cause delays in processing due to software complications. List your current last name on the application.

Our office must complete a Washington State Patrol (WSP) and National Practitioners DataBank (NPDB) background check on all applicants prior to issuing a temporary practice permit. Applicants with out of state addresses must submit their fingerprints for an FBI fingerprint background check. If the applicant meets all licensing criteria, with the exception of a completed FBI Fingerprint background check, our office will issue a temporary practice permit. Our office sends the fingerprint cards to the applicant after receipt of an initial application. The sooner the applicant completes the fingerprints, the sooner the application for can be reviewed for a decision to grant or deny the permanent license.

We continue to evaluate other options and will inform you as soon as possible if there are any changes.

For questions, please contact our office at 360-236-4703.

Paula R. Meyer MSN, RN, FRE

Executive Director

Nursing Care Quality Assurance Commission

Washington State Department of Health

Paula.meyer@doh.wa.gov

360-236-4714 | www.doh.wa.gov/LicensesPermitsandCertificates/NursingCommission



From: Robin Dale [<mailto:robindale@whca.org>]

Sent: Monday, March 2, 2020 2:00 PM

To: Meyer, Paula (DOH) <Paula.Meyer@DOH.WA.GOV>

Cc: Wiesman, John (DOH) <jmwiesman@doh.wa.gov>; Cody, Eileen <eileen.cody@leg.wa.gov>; Cleveland, Annette <annette.cleveland@leg.wa.gov>; Lauri St. Ours <lauristours@whca.org>

Subject: Life Care Center at Kirkland.

Importance: High

Dear Ms. Meyer,

We write in reference to the ongoing Covid-19 outbreak at Life Care Center of Kirkland.

We have been informed that Life Care Center of Kirkland is facing the imminent prospect of a nursing shortage. The center is anticipating the need for additional nursing staff to deal with the current Covid-19 outbreak. Due to the current statewide nursing shortage and compounded by the fact that individuals on the nursing staff at Life Care Center of Kirkland are choosing not to work at the facility due to the ongoing outbreak, Life Care Centers of America (LCCA) is attempting to attract additional nurses. As a national company, LCCA has the ability to bring in additional nurses from sister facilities outside the state and it is prepared to do so.

Earlier today, LCCA was reminded by a representative of the Washington Nursing Care Quality Assurance Commission (NCQAC) that Washington State is not a signatory to the Nursing Compact and therefore

nurses from out of state cannot practice in Washington absent certification from the Washington State Board of Nursing.

LCCA has asked for an expedited process to get some needed nursing staff, and has been told that currently there is no expedited process. We understand that LCCA has been informed that, even if an expedited process is approved, any near term or immediate relief is not feasible.

LCCA has been told that NCQAC is meeting this afternoon and they understand that the Commission may take up this issue. We strongly urge the Commission to do so, and thus I reach out with the urgent request for the Department of Health and the Nursing Care Quality Assurance Commission to immediately engage in developing and implementing an expedited process for approving out-of-state nurses for immediate service in Washington State, with a particular focus on getting workers approved for Life Care Centers of Kirkland.

We stand ready to work with both the Department of Health and NCQAC to ensure that critically ill patients to not go without the care and services that are more necessary than ever under this outbreak. This situation should and must be resolved with great urgency.

Please let me know if you have questions. I am standing by to work with you today.

Robin

Robin Dale

President/CEO

Washington Health Care Association

t (800) 562-6170, ext. 101



From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Tuesday, March 3, 2020 11:56 AM PST
To: Lofy, Kathy KL (CDC doh.wa.gov); Duchin, Jeff; Kay, Meagan
Subject: Santa Clara County Phased Approach to COVID Mit 03022020 4.47
Attachments: Santa Clara County Phased Approach to COVID Mit 03022020 4.47.docx

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Updated framework being used by Santa Clara response. Frankly, Seattle is probably phase 5. This still isn't the granular guidance in some areas that is needed but this is helpful.

tom

DRAFT Santa Clara County Phased Approach to COVID-19 Mitigation

Purpose of this document: To outline a draft community mitigation strategy in the event of increasing COVID-19 cases in the community

Audience: Public health officials and other stakeholders

Phase 1. Communicate immediate need for enhanced personal hygiene, common sense preparedness steps, and prepare community for additional actions that may be warranted.

Trigger. First confirmed case of community transmission

Rationale. Personal protective measures are preventive actions that can be used daily to slow the spread of COVID-19.

Recommendations. (Note: This has already been implemented)

- Ask individuals to practice respiratory hygiene etiquette, hand hygiene, and enhanced cleaning of environmental surfaces
- Ask individuals to think about how they would prepare themselves and their households for widespread community transmission
- Ask individuals to know the symptoms of COVID, stay home when they are ill, and call their provider BEFORE they arrive at a healthcare facility
- Communicate to business, faith-based and community leaders about encouraging hygiene, actions individuals can take and responsibility messages.
- Ask businesses to assess continuity of business plans – should include liberal leave and telework policies, 7-day leave policies for people with symptoms, consider alternate team approaches for work schedules.
- Ask schools to review emergency operations plans, promote the daily practice of everyday preventative measures and plan for increasing social distancing at schools and temporary remote learning

Key Messages.

- To protect yourself and others you can take everyday measures keep your hands clean, cover your cough, stay home when you are sick and if you do seek care call before you arrive at a facility
- Schools, businesses, and other community organizations can start preparing for widespread transmission by reviewing their emergency operations plans, planning for absenteeism, and encouraging people to

Full messages and resources can be found in Appendix 1.

Communications plan.

- General public
- Partners
 - Community leaders

- Business leaders
- School districts, universities and colleges, pre-K
- Community and faith-based organizations

Phase 2. Recommend actions to protect vulnerable populations.

Trigger. Second confirmed case of community transmission

Rationale. Based on our current understanding of COVID-19, older adults and adults with underlying medical problems (such as diabetes, COPD, etc) are at high risk of severe illness and death. The most comprehensive recent data from China indicate that mortality begins to increase at age 50-59 to 1.3% (from 0.2-0.4%), and 3.6% at age 60-69.

Based on these data, it may be reasonable to target adults aged 50+, in addition to persons with comorbidities and vulnerable populations.

The following recommendations are designed to focus on protecting these vulnerable populations initially. Additional recommendations designed to protect additional groups of individuals may be needed in the future depending on the evolution of the outbreak.

Recommendations.

- Communicate with vulnerable populations about personal hygiene measures
 - Respiratory hygiene etiquette
 - Staying home when sick
 - Enhanced cleaning of environmental surfaces
- In assisted and group living situations
 - Discourage visitors
 - Enhanced screening of visitors, staff, and patients for symptoms
 - Decrease social events at facilities
 - Enhanced cleaning of environmental surfaces
- Congregate settings
 - Recommend high-risk individuals avoiding mass gatherings such as parades, sporting events, and concerts.
 - Recommend high-risk individuals consider avoiding other settings where people congregate such as community centers or movie theaters.
- Recommend faith-based and other community organizations to scale back large group activities (e.g. services, group congregation) especially for high risk groups (e.g., the elderly).
- Healthcare considerations
 - Reinforce messaging around existing guidance; specific outreach to long-term care facilities and skilled nursing (new guidance available from cdc)

Messaging.

- How vulnerable population can protect themselves
- What should I do if I am part of a vulnerable population and I become ill?

For Consideration//Draft 3/1/2020

- What can long-term care, nursing facilities and assisted living homes do to protect vulnerable populations?
- What the healthcare system can do to protect vulnerable populations?
- What can businesses, community- and faith-based organizations, and schools do to protect vulnerable populations

Communications Plan.

- General public
- Identify and target outreach to vulnerable population community leaders
 - Senior citizen centers
 - Community centers
- Identify and target outreach to vulnerable population housing
 - Nursing homes
 - Retirement communities
 - Rehabilitation facilities

Phase 3. Maximizing social distancing

Trigger. Three confirmed cases of community transmission

Rationale. Reducing congregation of people may reduce transmission, prevent illness, and slow the course of the epidemic.

Recommendations:

- For individuals
 - Recommend that all people avoid attending large gatherings such as parades, concerts, and sporting events, if possible.
 - If they do attend large gatherings, ask people to try to maintain at least 6 feet (2 meters) of distance between themselves and others
- For the community
 - Ask businesses to employ strategies to increase social distancing, including maximizing use of telework policies, canceling in-person meetings or assemblies, and consider alternate team approaches for work schedules
- Ask schools to employ strategies for infection control and to increase social distancing including:
 - Split classes into smaller groups of students and staff
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
 - Stagger times for larger groups to congregate (e.g., entrance and dismissal, recess, mealtimes)
 - Hold after school activities in small groups only (size at the discretion of local authorities) or consider cancelling them
 - Specifically:
 - Pre-K
 - Enhanced screening of visitors, staff, and kids for symptoms, with clear guidance to not come to school if any symptoms

- K-12
 - Enhanced screening of visitors, staff, and students for symptoms, with clear guidance to not come to school if any symptoms
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
- Universities and college campuses
 - Cancelling large group and communal activities like lectures, mass celebrations, and sporting events.
 - Provide information to students and faculty to encourage minimizing interactions in dorms and dining halls
- Ask faith-based and community-based organizations to cancel/postpone gatherings, religious gatherings, celebrations, and events
- Ask event organizers to postpone large gatherings such as concerts, music festivals, and parades
- Ask businesses to allow liberal leave and telework policies, 5-day leave policies for people with symptoms, consider alternate team approaches for work schedules.
- Healthcare:
 - Pending

Messaging.

- How you can stay well
- What types of gathering you should avoid?
- What to do if you are ill?
- What should businesses should do?
- What should pre-K, universities, and k-12 schools do?
- What should community and faith-based organizations do?
- What should event organizers do?

Resources

- *Guidance for community events or mass gatherings:*
<https://www.cdc.gov/coronavirus/2019-ncov/community/mass-gatherings-ready-for-covid-19.html>

Communications Plan.

- General public
- Identify and target messaging to groups with will be asked to scale back, postpone, or cancel gatherings
 - Businesses
 - Pre-K, K-12, and universities
 - Community and faith-based organization
 - Mass gathering event organizers

Phase 4. School cancellation/dismissal

Trigger. 4+ community cases

Rationale. In a localized school outbreak it may be possible to close the affected school temporarily for cleaning and contact investigation. However, if there are indications of increased community transmission, preventing the spread of disease in educational settings among children and young adults has been demonstrated in influenza to be one of the most effective measures to reduce the risk for infection for these age groups and slows virus transmission in the community. Although there are limited data to support this practice for COVID-19, out of an abundance of caution this intervention may be considered.

Recommendation.

- Dismiss or cancel all schools for 2-4 weeks and reassess
 - Pre-K
 - K-12
 - Colleges and universities
- Healthcare:
 - Pending

Messaging.

- How school temporary school dismissal will lessen the COVID-19 outbreak in our community
- How you can stay well
- What should parents do
- What should schools do

Communications Plan.

- Pending

Appendix 1. Talking Points for Phase 1

- For individuals, the recommendations are very simple, but very important:
 - Keep your hands clean. It is one of the most important steps you can take to avoid getting sick and spreading germs to others. And always need to cover your cough and stay home when you are sick.
 - Today, start working on not touching your face because one way viruses spread is when you touch your own mouth, nose or eyes.
 - Since we know the disease is here, we all need to stay away from people who are sick.
 - And finally, start thinking about family preparedness, how to take care of sick family while not getting infected. Think about a room to isolate a sick person.
- For communities, we need to prepare for the possibility of widespread transmission,
 - Here are some examples of practical measures that can help limit spread by reducing exposure in community settings.
 - Schools: should plan for absenteeism and explore options for tele-learning and enhance surface cleaning.

- Businesses, whenever possible, can replace in-person meetings with video or telephone conferences and increase teleworking options and modify absenteeism policies and also enhance surface cleaning.
- What can I do to protect myself?
 - Start preparing your family and home over the coming days and weeks:
 - Meet with household members, other relatives, and friends to discuss what should be done if disease is widespread in your community and what the needs of each person will be.
 - Discuss how you are going to care for family members or loved ones if they become ill, including how to protect the ones giving care.
 - Have a thermometer and basic over the counter medications that you may need in your home
 - Think about a room in your home that can be used to separate sick household members from those who are healthy. If possible, also choose a bathroom for the sick person to use. Plan to clean these rooms daily. Learn how to care for someone at home.
 - Identify alternative childcare or consider keeping your children at home.
 - If your neighborhood has a website or social media page, consider joining it to stay connected to neighbors, information, and resources. Know where to go to find the latest messages from your public health department and CDC.
 - Identify organizations in your community that can help. Consider including organizations that provide mental health or counseling services, food, and other supplies.
 - Create an emergency contact list. Ensure that your household has a current list of emergency contacts for family, friends, neighbors, carpool drivers, health care providers, teachers, employers, and other community resources.
 - Stock up on recommended supplies:
 - Store a two-week supply of water and food.
 - Periodically check your regular prescription drugs to ensure a continuous supply in your home. If you can, have at least a one-month supply of your prescription drugs.
 - Have any nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
 - Include cleaning supplies (soap, antibacterial wipes, hand sanitizers, bleach, rubber gloves, disposable face masks, tissues, toilet paper, and cold medicines.
 - How to stay well:
 - Stay home when you are sick.
 - Cover coughs and sneezes with a tissue or sleeve.
 - Keep your hands clean. Wash hands with soap and water or using hand sanitizer when soap and water are not available.
 - Keep your distance from people who are sick.
 - Do not touch your face (nose, eyes, mouth) because viruses can spread to you when you touch your own mouth, nose or eyes.
 - Know what the symptoms are for COVID-19 and what to do if you fall ill.
 - Most mild respiratory cases may be like a mild flu or cold. Stay home if you have a mild illness.
- What is social distancing?

Commented [bop11]: Delivery of medications if you're sick and need more refills (most all chain drugs stores deliver now)

- Social distancing is a way to stay away from people to help slow the spread of a virus. Social distancing includes personal things you can do, and larger public health actions that can be taken.
- Personal actions include:
 - Washing your hands after touching commonly used items or coming into contact with someone who is sick. Scrub your hands for at least 20 seconds with soap and water.
 - Disposing things that come in contact with your mouth such as tissues or plastic eating utensils.
 - Stay away from people who show symptoms of an illness.
 - If you work closely to others, try to keep a distance of approximately three feet from the nearest person while at work.
 - Avoid large public venues such as theaters or sporting events.
 - Work from home if you can
 - Avoid gatherings if disease is wide-spread in the community
- What should schools do?
 - Schools should start planning for the possibility of widespread transmission in our community. This should include plans for absenteeism and exploring options for tele-learning and enhance surface cleaning.
 - When should I keep my child home from school?
 - If anyone is ill with fever, cough or other symptoms, they should stay home from work or school and other public activities until at least 24 hours after they have recovered.
- What should businesses do?
 - Businesses should prepare for widespread transmission in our community. Planning should consider replacing in-person meetings with video or telephone conferences; an increased ability for teleworking options; and, modifying absenteeism policies and enhancing surface cleaning.

Resources for messaging

- Guidance for individuals and households: <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html>
- Guidance for businesses and employers: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-business-response.html>
- Guidance for schools: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-for-schools.html>
 - Guidance for universities and colleges: <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html>

Appendix 2. Talking Points for Phase 2

From: Duchin, Jeff
Sent: Wednesday, March 4, 2020 6:57 AM PST
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
CC: Kay, Meagan; Cowgill, Karen; Apa, James; Elsenboss, Carina; Hayes, Patty; Worsham, Dennis
Subject: RE: King County covid proposal: seeking your rapid input
Attachments: scrn objectives v3 for cdc comment.docx

Thanks, Tom. I think somehow we would need to have this integrated into our surveillance formally and emergency assistance. Also need to better describe follow-up actions once positive and negative results are obtained.

Meagan – is there anyone on our end who can liaison with SFS to set it up?

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Sent: Wednesday, March 4, 2020 6:52 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Subject: FW: King County covid proposal: seeking your rapid input

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FYI from SFS

From: Schrag, Stephanie (CDC/DDID/NCIRD/DBD) <zha6@cdc.gov>
Sent: Tuesday, March 3, 2020 11:26 PM
To: Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>; Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Cc: Cowgill, Karen <n-kcowgill@kingcounty.gov>; Fleming, David <dfleming@path.org>
Subject: King County covid proposal: seeking your rapid input

Dan, Greg, Tom,
After much discussion with SFS team and advisors, Gates Ventures teams, and David Fleming (with context from Team B and Bob Pinner), attached please find a proposal Karen Cowgill and I drafted for immediate launch of a new public health surveillance activity in King County, WA. If we can get your concurrence and input on concerns/wishes by our morning in Seattle, we will then have Tom Clark share the ideas with Jeff Duchin to obtain his input. Once we have these inputs and concurrences, including comfort with King County and CDC as the named agencies and faces of this activity, we will proceed with

seeking human subjects determinations at CDC and WA. Our view is this likely falls under public health surveillance/response activity and not human subjects research.

The hope on the part of the partners here is to launch ASAP (days at most from now).

Regarding the serosurvey ideas you sent yesterday, these are under discussion by the SFS team, but will be considered as a separate activity (don't fit directly on the proposed platform here).

Looking forward to your thoughts on the document,
Stephanie and Karen

Stephanie Schrag, D Phil
Epidemiology Team Lead
Respiratory Diseases Branch
MS H24-6, Centers for Disease Control and Prevention, 1600 Clifton Rd, Atlanta, GA 30329
404 639 4646 (office)
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Public Health Objective

To slow the spread of SARS-CoV-2 and save lives in King County, WA (the current US epicenter of the COVID-19 epidemic) by informing public health decision-making through launch of:

- a. A rapid, widespread collection and testing of healthcare-associated and community specimens to obtain a snapshot within one week of launch of the current extent of virus spread in King County
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How much virus circulation is there in this key population? What mitigation measures are needed to protect this population, and the vulnerable populations they serve?

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- General community surveillance
 - Inform balance between community mitigation and response around individual cases
 - Understand transmission role of children, household contacts, community contacts, and travel
 - Understand whether there is an 'iceberg' of mild cases (disease pyramid below the tip and if so provide more complete picture of spectrum of disease, cfr/ifr etc)
 - Characterize basic risk factors to guide control efforts
 - Characterize disease trends: is it getting better or worse or same?
 - Improve accuracy of projections of cases by providing evidence base to inform and validate models //transmission network and phylodynamics/ resource needs/ response planning
- Targeted HCW surveillance
 - Enhance access to testing to keep infected workers out of settings where they can transmit to other HCW or vulnerable pops
 - Understand (potentially) what types of workers are affected most/shed light on risks to allow for mitigation

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Leverages three key approaches developed by the Seattle Flu Study:

- Collection of residual respiratory samples from outpatient and inpatient facilities with relevant metadata
- 'Swab and Send' (self-collected mid-nasal swabs using a home delivered kit) in community or key target pops
- Phylodynamic analysis of COVID positive samples

- ***Under the umbrella of SFS and their current IRB approval***
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- ***Under the umbrella of King County and CDC, a new King County public health surveillance activity will launch, comprised of***
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 - Longitudinal outpatient and community (Swab and Send from mild and asymptomatic) SARS-CoV-2 surveillance (**target: 300 per day =2100 per week**)
 - Targeted HCW (symptomatic and asymptomatic) Swab and send (**target 100/day**)
- **Elements of Swab and Send**
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 - App to guide self isolation, self-led decisions on triage for care, and self-led contact tracing ('light touch' from public health to preserve bandwidth)
 - Phylodynamics of Covid positives
 - Feeding of data into disease transmission models

Potential Add Ons to Swab and Send

- **Persons Under Investigation**
 - Adapt the above for a PUI arm to allow kit to be delivered to home and transported to state lab
 - *this add on was requested by King County DoH
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 - Understand duration of shedding, maybe change in viral load
 - Build in serology?
- **Convenience sample to evaluate effect of NPIs**
- **Environmental sampling in the community?**

From: David Blazes
Sent: Monday, March 2, 2020 10:46 PM PST
To: Duchin, Jeff; Scott Dowell
CC: Schrag, Stephanie (CDC/DDID/NCIRD/DBD)
Subject: RE: Impact of social distancing in China

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The paper further suggests that early and aggressive case finding/isolation and social distancing has the greatest impact, in that order...travel restrictions help but less so. There is a rebound effect, so social distancing probably needs to be maintained for some months, which is not ideal.

For SKC, I suspect travel restrictions inter-city are not appropriate/acceptable, but you could cancel large events and implement (semi)-voluntary work from home, and distance learning for school. I say semi-voluntary bc it may be better to work with the big companies to facilitate this, and then use them as examples of good practice. I wonder if the ISPs would increase bandwidth for homes and if you could get amazon to make sure that supplies are readily available – that seemed to be the cause of lots of angst in China. Toilet paper, alcohol hand gel, masks, etc...

UW is complicated, and I'm sure you're getting lots of advice from the admin/SPH. Speaking of UW, could you borrow SPH students to help with contact tracing/data entry/analysis – would be a great learning experience of course, but not sure of liability.

Finally, what are your plans re: homeless? Shelters likely not ideal but neither are camps.

I'll query the group tomorrow and see what modeling they can provide, especially if you have up to date epi on cases, deaths, travel patterns, and influenza that you can provide. Other than what I've mentioned, are the specific scenarios you think are more acceptable that you'll recommend?

Thx.
D

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From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Monday, March 2, 2020 10:12 PM
To: David Blazes <David.Blazes@gatesfoundation.org>; Scott Dowell

<Scott.Dowell@gatesfoundation.org>

Cc: Schrag, Stephanie (CDC/DDID/NCIRD/DBD) <zha6@cdc.gov>

Subject: Re: Impact of social distancing in China

any suggestions for what measures you think would be acceptable, sustainable and meaningful in our society?

Jeffrey S. Duchin, MD (he/him)

Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section

Public Health - Seattle and King County

Professor in Medicine, Division of Infectious Diseases, University of Washington

Adjunct Professor, School of Public Health

401 5th Ave, Suite 1250, Seattle, WA 98104

Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803

E-mail: jeff.duchin@kingcounty.gov

From: David Blazes <David.Blazes@gatesfoundation.org>

Sent: Monday, March 2, 2020 10:10 PM

To: Scott Dowell <Scott.Dowell@gatesfoundation.org>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Cc: Schrag, Stephanie (CDC/DDID/NCIRD/DBD) <zha6@cdc.gov>

Subject: RE: Impact of social distancing in China

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff – let us know how we can help. As Scott says, this paper shows some impressive results and predicts more control if NPI had been implemented earlier – there are some caveats of course, especially the options for implementation that China has...

I'm sure you saw that East Side Prep has moved to distance learning thru mid-April...I'm sure more to come.

D

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From: Scott Dowell <Scott.Dowell@gatesfoundation.org>

Sent: Monday, March 2, 2020 10:05 PM

To: Jeff Duchin (jeff.duchin@kingcounty.gov) <jeff.duchin@kingcounty.gov>

Cc: David Blazes <David.Blazes@gatesfoundation.org>; Schrag, Stephanie (CDC/DDID/NCIRD/DBD) <zha6@cdc.gov>

Subject: Impact of social distancing in China

Hey Jeff,

Here is that paper I mentioned, in case you have time to look at it. Pretty stunning results, if the China CDC numbers are credible. I am not sure about that, so I take it with a grain of salt. But if even partial implementation of social distancing, started earlier than they did in Wuhan, could blunt the epidemic peak it would be worth considering.

Copying David who leads our Epi and Modelling workstream on Covid-19 and can assemble some modelers to help support your decisions if useful.

Scott

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Tuesday, March 3, 2020 5:26 PM PST
To: Lofy, Kathy KL (CDC doh.wa.gov); Duchin, Jeff
Subject: FW: Santa Clara Community Mitigation - Press Release

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

From: Park, Benjamin (CDC/DDID/NCEZID/DHQP) <bip5@cdc.gov>
Sent: Tuesday, March 3, 2020 5:20 PM
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: FW: Santa Clara Community Mitigation - Press Release

FYI

From: Moulia, Danielle L. (CDC/DDID/NCIRD/OD) (CTR) <wwe8@cdc.gov>
Sent: Tuesday, March 3, 2020 4:10 PM
To: Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Ethier, Kathleen (CDC/DDID/NCHHSTP/DASH) <kbe0@cdc.gov>; Braden, Chris (CDC/DDID/NCEZID/OD) <crb5@cdc.gov>; Uzicanin, Amra (CDC/DDID/NCEZID/DGMQ) <aau5@cdc.gov>; Eidex, Rachel Barwick (CDC/DDID/NCEZID/DGMQ) <zvd3@cdc.gov>
Cc: McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP) <fzh7@cdc.gov>; Park, Benjamin (CDC/DDID/NCEZID/DHQP) <bip5@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Mead, Paul (CDC/DDID/NCEZID/DVBD) <pfm0@cdc.gov>; Fischer, Marc (CDC/DDID/NCEZID/DVBD) <mxf2@cdc.gov>; London, Joel (CDC/DDID/NCCDPPH/OSH) <izl4@cdc.gov>
Subject: Santa Clara Community Mitigation - Press Release

Good Afternoon,

Please see the following press release from Santa Clara County (<https://www.sccgov.org/sites/phd/news/Pages/two-new-covid-19-cases-3-3-2020.aspx>). They have announced an additional two cases of COVID19 as well as phase 2 of the Community Mitigation Plan: *Guidance for individuals and organizations for protecting persons at higher-risk of serious illness.*

Please let me know if you have any questions!

Thanks,
Dani

Danielle Moulia, MPH
2019 Novel Coronavirus (nCoV) Response
Centers for Disease Control and Prevention/GDIT

Mobile: 510-229-7178
Email: wwe8@cdc.gov

From: Moulia, Danielle L. (CDC/DDID/NCIRD/OD) (CTR)
Sent: Monday, March 2, 2020 8:57 AM
To: Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Ethier, Kathleen (CDC/DDID/NCHHSTP/DASH) <kbe0@cdc.gov>; Braden, Chris (CDC/DDID/NCEZID/OD) <crb5@cdc.gov>; Uzicanin, Amra (CDC/DDID/NCEZID/DGMQ) <aau5@cdc.gov>; Eidex, Rachel Barwick (CDC/DDID/NCEZID/DGMQ) <zvd3@cdc.gov>
Cc: McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP) <fzh7@cdc.gov>; Park, Benjamin (CDC/DDID/NCEZID/DHQP) <bip5@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Mead, Paul (CDC/DDID/NCEZID/DVBD) <pfm0@cdc.gov>; Fischer, Marc (CDC/DDID/NCEZID/DVBD) <mxf2@cdc.gov>; London, Joel (CDC/DDID/NCCDPPH/OSH) <izl4@cdc.gov>
Subject: RE: For Review: Santa Clara proposed mitigation plan

Hi All,

Thank you so, so much for your comments. I can't tell you how much we appreciate the quick turnaround. I am working to incorporate them this morning.

One item where I probably wasn't clear enough - Phase 1 and all the underlying messaging went out weeks ago. Right now SC is reemphasizing the messaging. I think there is room to add additional messaging, but I don't they can noticeable alter messages that have already gone out.

Thanks,
Dan

From: Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Sent: Sunday, March 1, 2020 10:33 PM
To: Moulia, Danielle L. (CDC/DDID/NCIRD/OD) (CTR) <www8@cdc.gov>; Ethier, Kathleen (CDC/DDID/NCHHSTP/DASH) <kbe0@cdc.gov>; Braden, Chris (CDC/DDID/NCEZID/OD) <crb5@cdc.gov>; Uzicanin, Amra (CDC/DDID/NCEZID/DGMQ) <aau5@cdc.gov>; Eidex, Rachel Barwick (CDC/DDID/NCEZID/DGMQ) <zvd3@cdc.gov>
Cc: McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP) <fzh7@cdc.gov>; Park, Benjamin (CDC/DDID/NCEZID/DHQP) <bip5@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Mead, Paul (CDC/DDID/NCEZID/DVBD) <pfm0@cdc.gov>; Fischer, Marc (CDC/DDID/NCEZID/DVBD) <mxf2@cdc.gov>; London, Joel (CDC/DDID/NCCDPPH/OSH) <izl4@cdc.gov>
Subject: RE: For Review: Santa Clara proposed mitigation plan

Thanks Dani,
Some thoughts attached. One item to note, the public messaging needs some massaging. I didn't word smith but we can have comms take a look as this iterates. Also, is there healthcare plan separate from this? (staff planning, messaging to health care workers and families, adjustments for IPC etc?)

We sent you and Tom Clarke (WA poc for mitigation) another version of the phased plan we have been mapping out based on the discussions to date that may be good to cross walk that doc with this one. What we found with Washington and Rhode island is they wanted more concrete info – how many days should a person stay home, when can they be out of isolation, how big of an event is too big, can we stop contact tracing etc, how many days should we close the school, etc... The doc also has some healthcare related phased approaches called out.

Hope you all are hanging on there.

Best,
Anita

From: Moulia, Danielle L. (CDC/DDID/NCIRD/OD) (CTR) <wwe8@cdc.gov>
Sent: Sunday, March 1, 2020 9:07 PM
To: Braden, Chris (CDC/DDID/NCEZID/OD) <crb5@cdc.gov>; Uzicanin, Amra (CDC/DDID/NCEZID/DGMQ) <aaau5@cdc.gov>; Eidex, Rachel Barwick (CDC/DDID/NCEZID/DGMQ) <zvd3@cdc.gov>
Cc: McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP) <fzh7@cdc.gov>; Park, Benjamin (CDC/DDID/NCEZID/DHQP) <bip5@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Mead, Paul (CDC/DDID/NCEZID/DVBD) <pfm0@cdc.gov>; Fischer, Marc (CDC/DDID/NCEZID/DVBD) <mxf2@cdc.gov>; London, Joel (CDC/DDID/NCCDPPH/OSH) <izl4@cdc.gov>
Subject: For Review: Santa Clara proposed mitigation plan
Importance: High

All,

Thanks for your input over the past couple days! Please see attached plan that Ben and I synthesized from discussions Santa Clara, as well as your plans/ideas/strawmen. We would really appreciate any feedback you have by tomorrow AM PT. I know this is a short turnaround, but Santa Clara will begin recommending enhanced measures for vulnerable populations (phase 2) tomorrow.

In addition, if you could keep the Santa Clara team posted on any information you hear from King County about their mitigation plans it would be very much appreciated. Any measures they take will have major communications impacts for Santa Clara.

Thanks you so much!
Dani

Danielle Moulia, MPH
2019 Novel Coronavirus (nCoV) Response
Centers for Disease Control and Prevention/GDIT

Mobile: 510-229-7178

Email: wwe8@cdc.gov

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Wednesday, March 4, 2020 6:51 AM PST
To: Duchin, Jeff
Subject: FW: King County covid proposal: seeking your rapid input
Attachments: scrn objectives v3 for cdc comment.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

FYI from SFS

From: Schrag, Stephanie (CDC/DDID/NCIRD/DBD) <zha6@cdc.gov>
Sent: Tuesday, March 3, 2020 11:26 PM
To: Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>; Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Cc: Cowgill, Karen <n-kcowgill@kingcounty.gov>; Fleming, David <dfleming@path.org>
Subject: King County covid proposal: seeking your rapid input

Dan, Greg, Tom,

After much discussion with SFS team and advisors, Gates Ventures teams, and David Fleming (with context from Team B and Bob Pinner), attached please find a proposal Karen Cowgill and I drafted for immediate launch of a new public health surveillance activity in King County, WA. If we can get your concurrence and input on concerns/wishes by our morning in Seattle, we will then have Tom Clark share the ideas with Jeff Duchin to obtain his input. Once we have these inputs and concurrences, including comfort with King County and CDC as the named agencies and faces of this activity, we will proceed with seeking human subjects determinations at CDC and WA. Our view is this likely falls under public health surveillance/response activity and not human subjects research.

The hope on the part of the partners here is to launch ASAP (days at most from now).

Regarding the serosurvey ideas you sent yesterday, these are under discussion by the SFS team, but will be considered as a separate activity (don't fit directly on the proposed platform here).

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- **Environmental sampling in the community?**

From: Langley, Gayle E. (CDC/DDID/NCIRD/DVD)
Sent: Wednesday, March 4, 2020 6:58 PM PST
To: Layton, Marci (CDC health.nyc.gov); Weiss, Don (CDC health.nyc.gov); Jennifer.Layden@cityofchicago.org; Conover, Craig (CDC illinois.gov); Sarah Park; Komatsu, Kenneth (CDC azdhs.gov); Safraneck, Thomas <NE> (CDC nebraska.gov); Lindquist, Scott SL (CDC doh.wa.gov); Duchin, Jeff
CC: Jain, Seema (CDC cdph.ca.gov)
Subject: DRAFT mitigation document from Santa Clara, CA
Attachments: Santa Clara County Phased Approach to COVID Mit 03032020_DRAFT.docx

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hello. CA (Santa Clara) was kind enough to share a DRAFT document on their phased approach to mitigation, knowing that other districts are likely interested. This is still in DRAFT form. Please do not distribute further without asking CA first. Thank you, Gayle

Gayle Langley, MD, MPH, FAAP
Centers for Disease Control and Prevention
Respiratory Viruses Branch
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Atlanta, GA 30333
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Email: fez7@cdc.gov

INTERIM Santa Clara County Phased Approach to COVID-19 Mitigation

Purpose of this document: To outline a draft community mitigation strategy in the event of increasing COVID-19 cases in the community

Audience: Public health officials and other stakeholders

Phase 1. Communicate immediate need for enhanced personal hygiene, common sense preparedness steps, and prepare community for additional actions that may be warranted.

Trigger. First confirmed case of community transmission

Rationale. Personal protective measures are preventive actions that can be used daily to slow the spread of COVID-19.

Recommendations. (Note: This has already been implemented)

- Ask individuals to practice respiratory hygiene etiquette, hand hygiene, and enhanced cleaning of environmental surfaces to protect themselves and others
- Ask individuals to think about how they would prepare themselves and their households for widespread community transmission
- Ask individuals to know the symptoms of COVID-18, stay home when they are ill, and call their provider BEFORE they arrive at a healthcare facility
- Communicate to business, faith-based and community leaders about encouraging hygiene, actions individuals can take and responsibility messages.
- Ask businesses to assess continuity of business plans – should include liberal leave and telework policies, 7-day leave policies for people with symptoms, consider alternate team approaches for work schedules.
- Ask schools to review emergency operations plans, promote the daily practice of everyday preventative measures and plan for increasing social distancing at schools and temporary remote learning

Key Messages.

- To protect yourself and others you can take everyday measures keep your hands clean, cover your cough, stay home when you are sick and if you do seek care call before you arrive at a facility
- Schools, businesses, and other community organizations can start preparing for widespread transmission by reviewing their emergency operations plans, planning for absenteeism, and encouraging people to

Full messages and resources can be found in Appendix 1.

Communications plan.

- Full messages have been targeted to general public, key partners, and stakeholders

Phase 2. Recommend social distancing e to protect vulnerable populations.

Trigger. Second confirmed case of community transmission

Rationale. Based on our current understanding of COVID-19, older adults and adults with underlying medical problems (such, as diabetes, COPD, etc) are at high risk of severe illness and death. The most comprehensive recent data from China indicate that mortality begins to increase at age 50-59 to 1.3% (from 0.2-0.4%), and 3.6% at age 60-69.

Based on these data, it may be reasonable to target adults aged 50+, in addition to persons with comorbidities and vulnerable populations.

The following recommendations are designed to focus on protecting these vulnerable populations initially. Additional recommendations designed to protect additional groups of individuals may be needed in the future depending on the evolution of the outbreak.

Recommendations.

- Continue to ask individuals to practice respiratory hygiene etiquette, hand hygiene, and enhanced cleaning of environmental surfaces to protect themselves
- Continue to ask individuals to know the symptoms of COVID-19, stay home when they are ill, and call their provider BEFORE they arrive at a healthcare facility
- Recommend that assisted and group living arrangements for vulnerable populations, such as assisted living, residential nursing
 - Discourage visitors
 - Enhanced screening of visitors, staff, and patients for symptoms
 - Decrease social events at facilities
 - Enhanced cleaning of environmental surfaces
- Congregate settings
 - Recommend high-risk individuals avoiding mass gatherings such as parades, sporting events, and concerts.
 - Recommend high-risk individuals consider avoiding other settings where people congregate such as community centers or movie theaters.
- Recommend faith-based and other community organizations to scale back large group activities (e.g. services, group congregation) especially for high risk groups (e.g., the elderly).
- Recommends that all healthcare facilities review and implement the new CDC guidance:
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/steps-to-prepare.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>

Upcoming Messaging.

- Due to increased risk of severe illness and death, older adults and adults with underlying health conditions should avoid gatherings,
- In addition to avoid gatherings, older adults and adults with underlying health conditions should take the same everyday preventive actions recommended for everyone, including covering coughs, washing hands often, and avoiding people who are sick.

Additional Messaging Pending On:

- How vulnerable population can protect themselves
- What should I do if I am part of a vulnerable population and I become ill?
- What can long-term care, nursing facilities and assisted living homes do to protect vulnerable populations?
- What the healthcare system can do to protect vulnerable populations?
- What can businesses, community- and faith-based organizations, and schools do to protect vulnerable populations

Communications Plan.

- General public
- Identify and target outreach to vulnerable population community leaders
 - Senior citizen centers
 - Community centers
- Identify and target outreach to vulnerable population housing
 - Nursing homes
 - Retirement communities
 - Rehabilitation facilities

Phase 3. Maximizing social distancing

Trigger. Three confirmed cases of community transmission

Rationale. Reducing congregation of people may reduce transmission, prevent illness, and slow the course of the epidemic.

Recommendations:

- For individuals
 - Recommend that all people avoid attending large gatherings such as parades, concerts, and sporting events, if possible.
 - If they do attend large gatherings, ask people to try to maintain at least arms length (2 meters) of distance between themselves and others
- For the community
 - Ask businesses to employ strategies to increase social distancing, including maximizing use of telework policies, canceling in-person meetings or assemblies, and consider alternate team approaches for work schedules
 - Ask schools to employ strategies for infection control and to increase social distancing including:
 - Split classes into smaller groups of students and staff
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
 - Stagger times for larger groups to congregate (e.g., entrance and dismissal, recess, mealtimes)
 - Hold after school activities in small groups only (size at the discretion of local authorities) or consider cancelling them
 - Pre-K

- Enhanced screening of visitors, staff, and kids for symptoms, with clear guidance to not come to school if any symptoms
- K-12
 - Enhanced screening of visitors, staff, and students for symptoms, with clear guidance to not come to school if any symptoms
 - Cancelling large group and communal activities like assemblies, camps, mass celebrations
- Universities and college campuses
 - Cancelling large group and communal activities like lectures, mass celebrations, and sporting events.
 - Provide information to students and faculty to encourage minimizing interactions in dorms and dining halls
- Ask faith-based and community-based organizations to cancel/postpone gatherings and make adjustments to cultural and religious practices to reduce interpersonal physical contact (i.e., limit drinking from shared vessels, avoid touching others, adjust scheduling and seating, etc).
- Ask event organizers to postpone/cancel gatherings such as concerts, music festivals, and parades
- Ask public building to adjust facility scheduling, traffic flow to reduce density of people sharing spaces and postpone/cancel gathering
- Recommends that all healthcare facilities review and implement the new CDC guidance:
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/steps-to-prepare.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>

Messaging. Pending, but should include

- How you can stay well
- What types of gathering you should avoid?
- What to do if you are ill?
- What should businesses should do?
- What should pre-K, universities, and k-12 schools do?
- What should community and faith-based organizations do?
- What should event organizers do?

Communications Plan.

- General public
- Identify and target messaging to groups with will be asked to scale back, postpone, or cancel gatherings
 - Businesses
 - Pre-K, K-12, and universities
 - Community and faith-based organization
 - Mass gathering event organizers

Phase 4. School cancellation/dismissal

Trigger. 4+ community cases

Rationale. In a localized school outbreak it may be possible to close the affected school temporarily for cleaning and contact investigation. However, if there are indications of increased community transmission, preventing the spread of disease in educational settings among children and young adults has been demonstrated in influenza to be one of the most effective measures to reduce the risk for infection for these age groups and slows virus transmission in the community. Although there are limited data to support this practice for COVID-19, out of an abundance of caution this intervention may be considered.

Recommendation.

- Dismiss or cancel all schools for 2-4 weeks and reassess
 - Pre-K
 - K-12
 - Colleges and universities
- Recommends that all healthcare facilities review and implement the new CDC guidance:
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/steps-to-prepare.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/guidance-hcf.html>
 - <https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/prevent-spread-in-long-term-care-facilities.html>

Messaging. Pending but should include

- How school temporary school dismissal will lessen the COVID-19 outbreak in our community
- How you can stay well
- What should parents do
- What should schools do

Communications Plan.

- Pending

Resources

- Guidance for individuals and households: <https://www.cdc.gov/coronavirus/2019-ncov/community/home/index.html>
- Guidance for businesses: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-business-response.html>
- Guidance for childcare & schools: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-for-schools.html>
- Guidance for colleges and universities: <https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-ihe-response.html>

- Guidance for mass gathering organizers: <https://www.cdc.gov/coronavirus/2019-ncov/community/mass-gatherings-ready-for-covid-19.html>

Appendix 1. Press Release for Phase 1

County of Santa Clara Public Health Department Reports Third Case of COVID-19

For immediate release

February 28, 2020

News highlights:

- The third case of COVID-19 in Santa Clara County and is not related to other cases.
- The third case had no known exposure to the virus through travel or close contact with a known infected individual.
- Now is the time to prepare for the possibility of widespread community transmission.

Santa Clara County - The County of Santa Clara Public Health Department confirms the third case of COVID-19. This is the third case to be identified in our County, but is different from the other two cases since this person does not have a travel history nor any known contact with a traveler or infected person.

The individual is an older adult woman with chronic health conditions who was hospitalized for a respiratory illness. Her infectious disease physician contacted the Public Health Department to discuss the case and request testing for the novel coronavirus. The County of Santa Clara Public Health Laboratory received the specimens yesterday and performed the testing. Since receiving the results last night, the department has been working to identify contacts and understand the extent of exposures.

Due to medical privacy requirements and to protect her identity, further information about this case will not be released.

“This new case indicates that there is evidence of community transmission but the extent is still not clear,” said Dr. Sara Cody, Health Officer for Santa Clara County and Director of the County of Santa Clara Public Health Department. “I understand this may be concerning to hear, but this is what we have been preparing for. Now we need to start taking additional actions to slow down the spread of the disease.”

This case is important because it signals that now is the time to change course. The public health measures taken so far – isolation, quarantine, contact tracing, and travel restrictions – have helped to slow the spread of the disease. The department will continue to implement these measures and continue to trace close contacts of our cases to protect the health of individuals and our community.

Since the disease is here, an important priority for the department will be to conduct community surveillance to determine the extent of local transmission. Since the County Public Health Laboratory has the ability to run the test, the department can quickly evaluate what is happening in our community.

For individuals, the recommendations are very simple, but very important:

- Keep your hands clean. It is one of the most important steps you can take to avoid getting sick and spreading germs to others. And always need to cover your cough and stay home when you are sick.
- Today, start working on not touching your face because one way viruses spread is when you touch your own mouth, nose or eyes.
- Since we know the disease is here, we all need to stay away from people who are sick.
- Start thinking about family preparedness, how to take care of sick family while not getting infected. Think about a room to isolate a sick person.

There are practical measures that can help limit spread by reducing exposure in community settings:

- Schools: should plan for absenteeism and explore options for tele-learning and enhance surface cleaning.
- Businesses: whenever possible, can replace in-person meetings with video or telephone conferences and increase teleworking options and modify absenteeism policies and also enhance surface cleaning.

The County of Santa Clara Public Health Department is working closely with the U.S. Centers for Disease Control and Prevention (CDC), the State of California Department of Public Health, and other partners as the new coronavirus situation continues to change. Information will be updated as soon as possible on our website: <http://sccphd.org/coronavirus>

Appendix 2. Press Release for Phase 2

New Guidance and Two New Cases of COVID-19 in Santa Clara County - March 3rd, 2020

New Guidance from the County of Santa Clara's Public Health Department

For Persons at Higher Risk from COVID-19

Two New Confirmed Cases in Santa Clara County

SANTA CLARA COUNTY, CA—The County of Santa Clara's Public Health Department is providing new guidance to the community to protect persons at higher-risk of serious illness due to COVID-19. The County is also announcing that there are now 11 confirmed cases of COVID-19 in Santa Clara County. This adds two additional cases to the nine that were previously confirmed, both of which are still under investigation to determine the source of transmission. At this time, of the total confirmed cases in the

county, only two have been determined to be community transmission; four are travel related; three are close contacts to known cases; and the two new cases remain under investigation.

“Due to our almost daily increase in cases, the Public Health Department is issuing new guidance today to protect the health of vulnerable individuals,” said the County’s Health Officer, Dr. Sara Cody. “We ask for the public’s help in sharing these new recommendations, staying calm, and following prior guidance issued by the Centers for Disease Control.”

The County of Santa Clara is working closely with a team from the Centers for Disease Control and Prevention (CDC) that is onsite with the Public Health Department.

“It is important to remember that, for about 80% of the population, this disease will be mild. While many persons in our community may get sick, the vast majority will recover. The added measures are being used to protect those in our community who are likely at greatest risk for having severe disease,” said Dr. George Han, Deputy Health Officer for the County of Santa Clara.

The County Public Health Department announced the following new guidance:

Guidance for individuals and organizations for protecting persons at higher-risk of serious illness:

The Santa Clara County Public Health Department is making the following recommendations for individuals who are at higher risk of becoming seriously ill if they contract COVID-19.

Who is at higher risk?

Information about risk factors for COVID-19 infection is evolving, but the best evidence currently available makes clear that risk of severe illness begins to increase at age 50 for those who contract COVID-19, and increases with age (i.e., an 80-year-old person is at greater risk than a 70-year-old person). The highest risk group are persons age 80 and over.

Persons with underlying medical problems also are likely at higher risk for severe disease, including persons with cardiovascular disease, diabetes, cancer, heart disease, or chronic lung diseases like COPD, as well as those who are immunocompromised.

What should I do if I am at higher risk?

The County Public Health Department is recommending that persons at higher risk avoid mass gatherings such as parades, sporting events, and concerts where large numbers of people are within arm’s length of one another. This would **not** include typical office environments, grocery stores, or shopping centers, where it is unusual for large numbers of people to be within arm’s length of one another.

I run an organization that primarily serves seniors or medically compromised individuals (e.g. nursing homes). What should I do?

The County Public Health Department is recommending that organizations that primarily serve seniors or medically vulnerable individuals:

- cancel mass gatherings (e.g., a large bingo gathering, movie screening, etc.);
- ensure they are extra vigilant in following recommendations regarding cleaning of high touch surfaces, including counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables;
- take all necessary measures to ensure all employees, visitors, and persons served who are experiencing any symptoms of illness stay home and avoid contact with others; and
- enhance screening of visitors, staff, and residents for symptoms of acute respiratory illness (e.g., fever, cough, difficulty breathing).

This is an evolving situation; therefore these recommendations may change and we recommend that individuals and organizations ensure they are watching for new guidance and following that guidance as it is released.

As a reminder, to prevent the spread of COVID-19 and all other communicable diseases such as flu, colds, etc., the CDC recommends that all persons follow respiratory hygiene etiquette measures, including:

- Wash your hands often with soap and water for at least 20 seconds, especially after going to the bathroom; before eating; and after blowing your nose, coughing, or sneezing.
 - If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. Always wash hands with soap and water if hands are visibly dirty.
- Avoid close contact with people who are sick.
- Avoid touching your eyes, nose, and mouth.
- Stay home when you are [sick](#).
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash and clean your hands.
- Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.
- Follow CDC's recommendations for using a facemask.
- CDC does **not** recommend that people who are well wear a facemask to protect themselves from respiratory diseases, including COVID-19.
- Facemasks should be used by people who show symptoms of COVID-19 to help prevent the spread of the disease to others. The use of facemasks is also crucial for [health workers](#) and [people who are taking care of someone in close settings](#) (at home or in a healthcare facility).

Prior Guidance Issued by the Centers for Disease Control

The new guidance for protecting persons at higher-risk of serious illness due to COVID-19 supplements *previous* ongoing recommendations from the CDC and local public health officials, which are listed below:

Personal Protection Recommendations:

- Keep your hands clean by washing them frequently, especially after you touch common surfaces, such as doorknobs, elevator buttons, handrails, light switches, countertops, and tables.

It is one of the most important steps you can take to avoid getting sick and spreading germs to others.

- Always cover your cough.
- Stay home if you are sick.
- Avoid touching your face because one way viruses spread is when you touch your own mouth, nose or eyes. If you do need to touch your own mouth, nose or eyes, wash your hands before you do so.

Recommendations for Schools:

Schools should plan for absenteeism and explore options for learning at home and enhance cleaning of surfaces. Additional guidance is available at: <https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-for-schools.html>

Recommendations for Organizers and Staff Responsible for Planning Mass Gatherings or Large Community Events:

<https://www.cdc.gov/coronavirus/2019-ncov/community/mass-gatherings-ready-for-covid-19.html>

Recommendations for Businesses:

Businesses should plan for ways to enhance surface cleaning, address absenteeism and, whenever possible, replace in-person meetings with video or telephone conferences and increase teleworking options. Additional guidance is available at: https://www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-business-response.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fguidance-business-response.html

Recommendations for Travelers:

The Centers for Disease Control and Prevention provides current travel notices for international travel to affected countries. Visit: <https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html>

If you are returning from international travel, the recommendations are:

- If you have symptoms, stay home, contact your healthcare provider, and provide your travel history.
- If you have traveled to countries experiencing coronavirus outbreak and have no symptoms, you may choose to stay home out of an abundance of caution, but it is not currently mandatory. If you develop symptoms, call your healthcare provider and tell them your symptoms and recent travel history.

From: David Blazes
Sent: Tuesday, March 3, 2020 7:35 AM PST
To: Duchin, Jeff; Schrag, Stephanie (CDC/DDID/NCIRD/DBD); Coronavirus Epi/surveillance Workstream Team
CC: Sheila Austria; Scott Dowell
Subject: FW: Seattle
Attachments: Lai non-pharmaceutical interventions for COVID-19 2020.pdf

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff,

See below email from FB – I'm sure our modeling experts at IDM/IHME can do a similar analysis on potential for NPI that the WorldPop group did based on Baidu data for China. I have already asked about the efforts underway that FB mentioned, and will let you know what I hear. Perhaps a call this afternoon would be good. I can move things from 1-3, and 4-5pm, or anytime after 5:30, and I'm sure many of the team can join as well.

Let us know what makes most sense.

Thx.

David

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From: Alex Pompe <alexpompe@fb.com>
Sent: Tuesday, March 3, 2020 5:51 AM
To: David Blazes <David.Blazes@gatesfoundation.org>; Laura McGorman <lmcgorman@fb.com>
Cc: Emily Turner <Emily.Turner@gatesfoundation.org>
Subject: Re: Seattle

Hey David,

We're happy to help out in any way we can. We started generation of our standard Disease Prevention Maps for 20 US metro areas a few days ago per the request of a modelers at a different partner (happy to reach out to them and connect you if they agree - by default we don't mention partner names externally or to other partners without permission). This includes Seattle, and the interactive version of the movement data should be [viewable for you at this link](#) or try searching for "Seattle Coronavirus Disease Prevention Map Feb 27 2020" and the layers should appear. Let me know if the boundary box is missing some of the area that you want coverage for.

We also are working on manually generation our early version colocation maps for all covid19 Disease Prevention Maps. We generated these for Hong Kong and Taiwan a couple weeks ago, and will have updated versions of those countries along with South Korea, Japan, Singapore, and Italy by today (fingers crossed). If you would be able to make use of colocation data (and comfortable looking at an early version that we've accelerated due to covid19) let me know. Happy to provide more details.

-Alex

For reference here is a list of items that Facebook Data for Good has to offer that we hope assist with the covid19 response:

- I've just kicked off our [Disease Prevention Maps](#) for South Korea and Italy per partner requests but feel free to let me know of additional geos you need data for. We are generating these maps for several other geographies by request of partners, so I encourage you to search in the GeoInsights tool for them. If you have trouble finding things just shoot me an email or slack and I am happy to provide support.
- Our baseline [high resolution population density maps with demographic breakouts](#) should be useful as well. The Disease Prevention Maps are just showing Facebook mobile app users, but these maps show the overall population. They are available on [UN OCHA's Humanitarian Data Exchange here](#) or [Amazon AWS Open Data Sets here](#).
- We are working with the Crowdtangle team at Facebook who are [building dashboards like this one](#) to monitor content across social media related to the virus.
- We can give access to our prototype colocation maps data sets for Taiwan and Hong Kong (with more countries in the works) . Our documentation is still a bit fragmented since these are still in active development, but here is the [best writeup we have of how we generate them](#). Please do not share these data sets with anyone internal or external but feel free to connect them to me and I can share directly after obtaining approval.

Let me know if I can be of additional help!

From: David Blazes <David.Blazes@gatesfoundation.org>

Sent: Monday, March 2, 2020 10:53 PM

To: Alex Pompe <alexpompe@fb.com>

Cc: Emily Turner <Emily.Turner@gatesfoundation.org>

Subject: Seattle

Hi Alex,

As you know, we have an issue in Seattle these days. Any way our modelers can use FB mobility data to plan mitigation strategies with public health officials for Seattle and Snohomish counties?

Thx.

David

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From: Alex Pompe <alexpompe@fb.com>
Sent: Saturday, January 25, 2020 3:36 PM
To: Emily Turner <Emily.Turner@gatesfoundation.org>; Laura McGorman <lmcgorman@fb.com>; Scott Dowell <Scott.Dowell@gatesfoundation.org>; David Blazes <David.Blazes@gatesfoundation.org>
Subject: Re: in-country mobility maps for Africa

BMGF colleagues,

I've just sent you logins and instructions to access the Facebook Disease Prevention Maps. I've also just kicked off boundary rectangles for the following requests covering the entire country. Search for these once you activate your logins and ping me if you can't find them after allowing ~12 hours for them to finish the first batch.

- Corona virus ethiopia map
- Coronavirus Kenya map Jan 25 2020
- Coronavirus Rwanda map Jan 25 2020
- Coronavirus South Africa Jan 25 2020
- Coronavirus Tanzania Jan 25 2020
- Coronavirus Senegal Jan 25 2020
- Coronavirus Uganda Jan 25 2020

Most of these are very large areas for our pipelines. We generate movement data as vectors between both admin level 3 shapes and bing tiles of 0.6km². However I would predict that these are large enough areas that our pipeline will not be able to finish within 8 hours, which means it will step up bing tile levels and become more coarse until it can finish in that refresh rate. If you need more fine grained resolution, then let me know more specific areas of interest. You don't need to provide exact lat+lon pairs - just a rectangle drawn on a google map. Laura and I will be hand drawing the rectangles.

This was probably the largest batch of pipeline jobs I've ever kicked off, so we may run into unexpected delays - but typically the first data sets will land in 12-18 hours. For this reason I recommend we not generate for all African countries in SSA. You can search for other boundary boxes for all active Disaster / Disease Prevention Maps and to get a feel for what the data looks like. Make sure take note of the download tab to export a csv / geotiff version of the data for your own workflow. Let us know if you have further questions or additional boundary boxes to kick off.

-Alex

From: Emily Turner <Emily.Turner@gatesfoundation.org>
Sent: Saturday, January 25, 2020 3:09 PM

To: Alex Pompe <alexpompe@fb.com>; Laura McGorman <lmcgorman@fb.com>; Scott Dowell <Scott.Dowell@gatesfoundation.org>; David Blazes <David.Blazes@gatesfoundation.org>
Subject: in-country mobility maps for Africa

Dear Scott and David,

I'd like to introduce Alex Pompe and Laura McGorman at Facebook's Data for Good. Alex is the Research Manager at Facebook's Data for Good, and Laura is their Policy Lead. David and Scott lead our Surveillance and Epidemiology efforts here at the foundation.

Alex has confirmed that their Disease Prevention mapping tool can provide mobility data within a country's borders, with the ability to focus around specific geographies of interest (e.g. airports). My understanding is that their pipelines take 12-18 hours for the first run, with an ~8 hour refresh after that.

Alex has confirmed that BMGF, IHME and IDM have existing agreements to access their data, and he can create new logins for anyone in those institutions. At this point, Alex, please add Scott, David and me to the access list for BMGF. Alex is also about to get on a 7 hour flight, so I suggest we kick off a mapping run with the following countries, which perhaps could be refined with input from Scott/David for a follow-up run:

Ethiopia
Kenya
Rwanda
South Africa
Tanzania
Senegal
Uganda

Of course, if it's a trivial increment to map every sub-Saharan country, perhaps it's worth doing that. Alex, do you need specific coordinates to seed your map (eg airport locations), or can you just use the borders?

Thanks
Emily

Effect of non-pharmaceutical interventions for containing the COVID-19 outbreak: an observational and modelling study

Shengjie Lai*, Nick W Ruktanonchai*, Liangcai Zhou, Di Wang, Jing Xia, Olivia Prosper, Wei Luo, Jessica R Floyd, Amy Wesolowski, Chi Zhang, Xiangjun Du, Hongjie Yu, and Andrew J Tatem

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Corresponding authors: Shengjie Lai (Shengjie.Lai@soton.ac.uk) and Andrew J Tatem (A.J.Tatem@soton.ac.uk), WorldPop, School of Geography and Environmental Science, University of Southampton, UK

Abstract

Background

The COVID-19 outbreak containment strategies in China based on non-pharmaceutical interventions (NPIs) appear to be effective. Quantitative research is still needed however to assess the efficacy of different candidate NPIs and their timings to guide ongoing and future responses to epidemics of this emerging disease across the World.

Methods

We built a travel network-based susceptible-exposed-infectious-removed (SEIR) model to simulate the outbreak across cities in mainland China. We used epidemiological parameters estimated for the early stage of outbreak in Wuhan to parameterise the transmission before NPIs were implemented. To quantify the relative effect of various NPIs, daily changes of delay from illness onset to the first reported case in each county were used as a proxy for the improvement of case identification and isolation across the outbreak. Historical and near-real time human movement data, obtained from Baidu location-based service, were used to derive the intensity of travel restrictions and contact reductions across China. The model and outputs were validated using daily reported case numbers, with a series of sensitivity analyses conducted.

Findings

We estimated that there were a total of 114,325 COVID-19 cases (interquartile range [IQR] 76,776 - 164,576) in mainland China as of February 29, 2020, and these were highly correlated ($p < 0.001$, $R^2 = 0.86$) with reported incidence. 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. Results suggest that the social distancing intervention should be continued for the next few months in

China to prevent case numbers increasing again after travel restrictions were lifted on February 17, 2020.

Conclusion

The NPIs deployed in China appear to be effectively containing the COVID-19 outbreak, but the efficacy of the different interventions varied, with the early case detection and contact reduction being the most effective. Moreover, deploying the NPIs early is also important to prevent further spread. Early and integrated NPI strategies should be prepared, adopted and adjusted to minimize health, social and economic impacts in affected regions around the World.

Funding

Bill & Melinda Gates Foundation; EU Horizon 2020; National Natural Science Fund of China; Wellcome Trust.

Keywords: COVID-19; coronavirus; SARS-CoV-2; outbreak; non-pharmaceutical interventions; population movement; travel restriction; social distancing; model.

Research in context

Evidence before this study

The COVID-19 outbreak has spread widely across China since December 2019, with many other countries affected. The containment strategy of integrated nonpharmaceutical interventions (NPIs) including travel bans and restrictions, contact reductions and social distancing, early case identification and isolation have been rapidly deployed across China to contain the outbreak, and the combination of these interventions appears to be effective. We searched PubMed, Wanfang Data, and preprint archives for articles in English and Chinese published up to February 29, 2020, that contained information about the intervention of the COVID-19 outbreak. We found 15 studies that have investigated or discussed the potential effects of traveller screening, Wuhan's lockdown, travel restrictions, and contact tracing in China or other countries. However, none of them comprehensively and quantitatively compared the effectiveness of various NPIs and their timings for containing the COVID-19 outbreak.

Added value of this study

To our knowledge, this is the most comprehensive study to date on quantifying the relative effect of different NPIs and their timings for COVID-19 outbreak containment, based on human movement and disease data. Our findings show that NPIs, inter-city travel restrictions, social distancing and contact reductions, as well as early case detection and isolations, have substantially reduced COVID-19 transmission across China, 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. Our findings contribute to improved understanding of integrated NPI measures on COVID-19 containment and can help in tailoring control strategies across contexts.

Implications of all the available evidence

Given that effective COVID-19-specific pharmaceutical interventions and vaccines are not expected to be available for months, NPIs are essential components of the public health response to the ongoing outbreaks.

Considering the narrowing window of opportunity around the World, early and integrated NPI strategies should be prepared, deployed and adjusted to maximise the benefits of these interventions for containing COVID-19 spread.

Introduction

As of February 28, 2020 the COVID-19 outbreak has caused 78,961 confirmed cases (2791 deaths) across China, with the majority seen in Wuhan City, and 4691 cases (67 deaths) reported in the other 51 countries.¹ Further spread has occurred to all populated continents of the World, with many anticipating that a pandemic is approaching.^{2,3} As an emerging disease, effective pharmaceutical interventions are not expected to be available for months,⁴ and healthcare resources will be limited for treating all cases. Nonpharmaceutical interventions (NPIs) are therefore essential components of the public health response to outbreaks.^{1,5-7} These include isolating ill persons, contact tracing, quarantine of exposed persons, travel restrictions, school and workplace closures, and cancellation of mass gathering events.⁵⁻⁷ These containment measures aim to reduce transmission, thereby delaying the timing and reducing the size of the epidemic peak, buying time for preparations in the healthcare system, and enabling the potential for vaccines and drugs to be used later on.⁵ For example, social distancing measures have been effective in past influenza epidemics by curbing human-to-human transmission and reducing morbidity and mortality.⁸⁻¹⁰

Three major NPIs have been taken to mitigate the spread and reduce the outbreak size of COVID-19 across China.^{11,12} First, inter-city travel bans or restrictions have been taken to prevent further seeding the virus during the Chinese new year (CNY) holiday. People in China were estimated to make close to 3 billion trips over the 40-day CNY travel period from January 10 to February 18, 2020.^{12,13} A cordon sanitaire of Wuhan and surrounding cities in Hubei Province was put in place on January 23, 2020, just two days before CNY's day on January 25. However, Wuhan's lockdown is likely to have occurred during the latter stages of peak population numbers leaving the city before CNY, with around 5 million people likely leaving before the start of the travel ban, departing into neighbouring cities and other megacities in China.¹⁴ Since CNY's day, travel restrictions in other provinces were also put in place across the country.

The second group of containment measures involves improving the screening, contact tracing, identification, diagnosis, isolation and reporting of suspected ill persons and confirmed cases.¹¹ Since January 20, particularly in Wuhan, searches for cases, diagnosis and reporting have sped up across the country.

Local governments across China encouraged and supported routine screening and quarantine of travellers from Hubei Province in an attempt to detect COVID-19 infections as early as possible. In Wuhan, where the largest number of infected people live, residents were required to measure and report their temperature daily to confirm their onset, and those with mild and asymptomatic infections were also quarantined in “Fang Cang” hospitals, which are public spaces such as stadiums and conference centres that have been repurposed for medical care.¹¹ The average interval from symptom onset to laboratory confirmation has dropped from 12 days in the early stages of the outbreak to 3 days in early February, highlighting how the efficiency of disease detection and diagnosis has greatly improved.^{15,16}

Third, inner-city travel and contact restrictions were implemented to reduce the risk of community transmission. This involved limiting individual social contact, using personal hygiene and protective measures when people needed to move in public, and increasing the physical distance between those who have COVID-19 and those who do not.¹¹ As part of these social distancing policies, Chinese government encouraged people to stay at home as much as possible, cancelled or postponed large public events and mass gatherings, and closed libraries, museums, and workplaces.^{17,18} Additionally, to fully cover the suspected incubation period of COVID-19 spread before Wuhan’s lockdown, the CNY and school holidays were also extended, with the holiday end date changed from January 30 to March 10 for Hubei province, and Feb 9 for many other provinces.¹⁹⁻²¹

The implementation of these NPIs has coincided with the rapid decline in the number of new cases across China, albeit at high economic and social costs.^{15,16} On February 17, the State Council required localities to formulate differentiated county-level measures for precise containment of the COVID-19 outbreak and the restoration of socioeconomy affected by the outbreak.²² The timing of implementing and lifting interventions is likely to have been and continue to be important, to take advantage of the window of opportunity to save lives and minimize the economic and social impact.^{23,24}

The increasing numbers of cases of COVID-19 outside China and establishment of secondary transmission in multiple places highlights its pandemic potential. The best available scientific evidence is therefore required to design effective NPI strategies and disseminate this knowledge urgently to

help policy makers assess the potential benefits and costs of NPIs to contain COVID-19 outbreaks. Some previous studies have preliminarily explored the lockdown of Wuhan,²⁵⁻²⁷ travel restrictions,²⁸⁻³⁰ airport screening,^{31,32} and the isolation of cases and contact tracing for containing virus transmission, respectively.^{33,34} The conclusions of these studies are persuasive, there are still key knowledge gaps on the effectiveness of different interventions.¹⁵ To fully justify the preparation, implementation, or cancellation of various NPIs, policy makers across the World need evidence as to the combination and timings of each, which remains lacking.

Based on near-real time human movement and disease data, here we conducted an observational and modelling study to develop a travel network-based modelling framework. We aimed to reconstruct COVID-19 spread across China and assess the effect of the three major groups of NPIs mentioned above. Given the expanding landscape of epidemics across the World, our findings contribute to improved understanding of the effect of NPI measures on COVID-19 containment and can help in tailoring control strategies across contexts.

Methods

A travel network-based stochastic susceptible-exposed-infectious-removed (SEIR) model was built to simulate the COVID-19 spread between and within all prefecture-level cities in mainland China. Population movement data on human mobility across the country were used to estimate the intensity of travel restrictions and contact reductions. Data from illness onset to reporting of the first index case for each county were used to infer the changing timeliness of case identification and isolation across the course of the outbreak. The outputs of the model under NPIs were validated by using daily numbers of new cases reported across all regions in mainland China. Based on this modelling framework, the efficacy of applying or lifting non-pharmaceutical measures under various scenarios and timings were tested and quantified.

Data sources

Three population movement datasets, obtained from Baidu location-based services providing over 7 billion positioning requests per day,^{35,36} were used in this study to measure travel restrictions and social distancing across time and

space. The first is an aggregated and de-identified dataset on near-real time daily relative outbound and inbound flow of mobile phone users for each prefecture-level city in 2020 (340 cities in mainland China were included) to understand mobility patterns during the outbreak. The daily outflow from each city since Wuhan's lockdown and travel restrictions that were applied on January 23 were rescaled by the mean daily flow for each city during January 20 – 22 for comparing travel reductions across cities and years (Figure 1).

The second Baidu dataset is a historical relative movement matrix with daily total number of users at city level from December 26, 2014 to May 26, 2015, aligning with the 2020 CNY holiday period, for which the corresponding period is December 1, 2019 to April 30, 2020. We assumed that the pattern of population movements was the same in years when there were no outbreaks and interventions. Adjusted by the level of travel reductions derived from the 2020 dataset where applicable, the second dataset was used to simulate the COVID-19 spread and predict future transmission via population movements under various scenarios, with or without inter-city travel restrictions. Corresponding city-level population data in 2015 for modelling were obtained from the Chinese Bureau of Statistics.³⁷

The third Baidu dataset measures daily population movements at county level (2862 counties in China) from January 26 through April 30, 2014, as described elsewhere.³⁸ Based on the assumption that the pattern of population contact was consistent across years when there were no interventions, it was used to estimate inner-city travel and contact reduction under the outbreak and interventions. First, we aggregated data from county to city level and rescaled the daily flows since January 29, 2014 by the mean of the daily flow for the January 26 – 28 period, aligning with the date of Wuhan's lockdown and the 2020 CNY holiday. Then, the rescaled first dataset for 2020 under interventions was compared with the 2014 dataset to derive the percentage of travel decline for each city. The percentages for cities were averaged by day to preliminarily quantify the intensity of contact reduction in China under NPIs (appendix Table S1), as the policies of travel restriction and social distancing measures were implemented and occurred at the same time across the country.

We also collated data of the first case reported by county across mainland China to measure the delay from illness to case report as a reference of the

improved timeliness of case identification, isolation and reporting during the outbreak (appendix Table S2). The daily reported number of COVID-19 cases in Wuhan City, Hubei Province and other provinces were also used to further validate our results. These case data were collated from the websites of national and local health authorities, news media, and publications (appendix note).^{14,39,40}

Data analysis

We constructed a travel network-based SEIR modelling framework (the code of model is available online at <https://github.com/wpgp/BEARmod>) for before-and-after comparable analyses on NPI efficacy. First, we simulated the COVID-19 spread across a metapopulation, where each population represented a city across China. Within each population, numbers of susceptible, exposed, infectious, and recovered/removed people were tracked per day.³ The epidemiological parameters estimated for the early stage of the outbreak in Wuhan were used to parameterise the epidemic before widely implementing the NPIs.⁴¹ During each timestep, infected people first recovered or were removed at an average rate r , where r was equal to the inverse of the average infectious period. We used the median of time lags from illness onset to reported case as a proxy of the average infectious period, indicating the improving case identification and isolation under improved interventions (appendix Table S2). Exposed people then became infectious at a rate ε , where ε was the inverse of the average time spent exposed but not infectious, based on the estimated incubation period (5.2 days, 95% confidence interval [CI] 4.1 - 7.0).⁴¹

The number of new people that could become exposed was calculated based on the daily contact rate c and the number of infectious people in the city I_i , and this was turned into a number of newly exposed people after multiplying by the fraction of people in i who were susceptible (accounting for potential encounters with already-infected people, which did not lead to a new infection). The daily contact rate c was the basic reproduction rate (R_0 , 2.2, 95%CI 1.4 - 3.9) divided by the average days (5.8, 95%CI 4.3-7.5) from onset to first medical visit and isolation,⁴¹ then weighted by the level of daily contact (appendix Table S1). Finally, infectious people moved between cities, where the probability of moving from city i to city j (p_{ij}) was equal to the proportion

of smartphone users who went from city i to city j in the corresponding day from the Baidu dataset in 2015, accounting for the travel restrictions in 2020.

In this model, stochasticity occurred through variance in numbers of people becoming exposed, infectious, and removed/recovered, as well as variance in numbers of people moving from one city to another. Newly-infected people, recovered people, and numbers of people who moved were calculated for each city, each day, by drawing from *Poisson* distributions, where the probability of each person transitioning between states was ε , r , and p_{ij} respectively. By modelling the COVID-19 epidemic in this way, we could simulate the incidence of COVID-19 cases, accounting for variance in recovery, infection, and movement across many simulation runs (1000). Additionally, the incidence since the NPIs were implemented would be affected both by infections before and after interventions. Then, we could use this model to test the transmission of COVID-19 under various intervention scenarios and timings, as well as the potential of further transmission after the lifting of travel restrictions and contact distancing measures on 17 February 2020.

The estimates of the model for the outbreak under current NPIs as the baseline scenario were compared with reported COVID-19 cases across time and space. The sensitivity and specificity were also calculated to examine the performance of the model in predicting the occurrence of COVID-19 cases at city level across China. The relative effect of NPIs were quantitatively assessed by comparing estimates of cases under various NPIs and timings with that of the baseline scenario. We also conducted a series of sensitivity analyses to understand the impact of changing epidemiological parameters on the estimates and uncertainties of intervention efficacy. R version 3.6.1 (R Foundation for Statistical Computing, Vienna, Austria) was used to perform data collation and analyses.

Ethical approval

Ethical clearance for collecting and using secondary data in this study was granted by the institutional review board of the University of Southampton (No. 48002). All data were supplied and analysed in an anonymous format, without access to personal identifying information.

Role of the funding source

The funder of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report. The corresponding authors had full access to all the data in the study and had final responsibility for the decision to submit for publication.

Results

As of February 29, 2020, a total of 79,824 COVID-19 cases were reported in mainland China, with most cases (61%) having occurred in Wuhan (Table 1). The outbreak increased exponentially prior to CNY (Figure 2). However, the peak of epidemics across the country quickly appeared through implementing strong and comprehensive NPIs, including dramatic reductions in travel and contact, and significant improvements in the timeliness of case detection and reporting across the country (Figure 1 and appendix Tables S1 and S2). We estimated that there were a total of 114,325 COVID-19 cases (interquartile range [IQR] 76,776 – 164,576) in mainland China as of February 29, 2020, with 85% of these in Hubei Province. The epidemics outside of Hubei province likely reached a low level (< 10 cases per day) in late February or early March, while cities in Hubei Province may need another two or three weeks to reach same level as other provinces. The estimated epidemics and peaks were consistent with patterns of reported data by onset date, with a high correlation ($p < 0.001$, $R^2 = 0.86$) found across regions (Figure 2). The sensitivity and specificity of our model were 91% (280/308) and 69% (22/32), respectively, to predict a city with or without COVID-19 cases as of February 29, 2020.

We found that without NPIs, the number of COVID-19 cases would increase rapidly across China, with a 51-fold increase in Wuhan, a 92-fold increase in other cities in Hubei, and 125-fold increase in other provinces, as of February 29 (Table 1). However, the apparent effectiveness of different interventions varied (Figure 3 and appendix Figure S1). The lockdown of Wuhan might not have prevented the seeding of the virus from the city, as the travel ban was put in place at the latter stages of outbound travel prior to CNY's day (Figure 3). Nevertheless, if inter-city travel restrictions were not implemented, cities and provinces outside of Wuhan would have received more cases from Wuhan, and the affected geographic range would have expanded to the remote

northern and western areas of China (Figure 4a and appendix Figure S2). Generally, the early detection and isolation of cases was estimated to quickly and substantially prevent more infections than contact reduction and social distancing across the country (5-fold versus 2.6-fold), but without the intervention of contact reductions, in the longer term, the epidemics would increase exponentially. Therefore, integrated NPIs would achieve the strongest and most rapid effect on COVID-19 outbreak containment (Table 1).

The timings of intervention implementation are also critical. The number of cases could be dramatically reduced by 66%, 86%, and 95%, respectively, if the NPIs could be conducted one week, two weeks, and three weeks earlier than the actual timing across the country (Figure 5). Moreover, the geographical range of affected areas would shrink from 308 cities to 192, 130, and 61 cities, respectively (Figure 3 and appendix Figures S3 and S4). Additionally, if population contact resumed to the normal levels seen in previous years, the lifting of travel restrictions since February 17 might cause the epidemic to rise again (Figure 5 and appendix Figure S5). Therefore, the social distancing intervention should be continued for several months. Additionally, sensitivity analyses suggested that our model could have robustly measured relative changes of efficacy of various interventions on containing the COVID-19 outbreak under different epidemiological parameters and transmission scenarios (appendix Figures S6-S12).

Discussion

Our findings show that combined NPIs, inter-city travel restrictions, social distancing and contact reductions, as well as early case detection and isolations, have substantially reduced COVID-19 transmission across China. The lifting of inter-city travel restrictions since February 17, 2020, aiming to minimize the socioeconomic impact, does not appear to lead to an increase in cases if social distancing intervention can be maintained. Additionally, earlier implementation of interventions could have significantly reduced the magnitude and geographical range of the COVID-19 outbreak that has occurred in China. China's vigorous, multifaceted response is likely to have prevented a far worse situation, which would have accelerated spread globally. The lessons drawn from China provide robust evidence and provide a preparation window and fighting chance for containing the spread of COVID-19 in other regions around the World.^{15,16}

Three points raised by our findings are important. First, they support and validate the idea that population movement and close contact has a major role in the spread of COVID-19 within and beyond China,^{3,14} indicating the global risk of a pandemic via travellers infected with this virus. As the lockdown of Wuhan happened at the late stage of movement before CNY, travel restrictions did not halt the seeding of the virus from Wuhan, but it likely prevented extra cases being exported from Wuhan to a wider area. The second point is that the importance and effects of various NPIs differed. Compared to travel restrictions, improved detection and isolation of cases as well as the social distancing likely had a greater impact on the containment of outbreak. The social distancing intervention reduced contact with people who travelled from the epicentre of the epidemic, who were encouraged to quarantine at home. This is likely to have been especially helpful in curbing the spread of an emerging pathogen to the wider community, and reduced the spread risk from asymptomatic or mild infections.⁵ Third, given travel and work resuming in China, the country should consider at least partial continuation of NPIs to ensure that the COVID-19 outbreak is sustainably controlled. For example, early case identification and isolation should be maintained, and social distancing and personal hygiene are still proposed. Teleworking at home and staggered shifts are considered for mitigating COVID-19 transmission in workplaces or during the commute to and from work. Although the number of reported cases in the COVID-19 outbreak in China has decreased rapidly since February, we cannot be certain that the SARS-CoV-2 can be eradicated, as occurred for SARS-CoV.⁴²

Ours is the most comprehensive study yet in which the effect of NPIs on COVID-19 transmission has been quantitatively assessed. Our model framework accounts for daily interactions of populations, interventions between and within cities, as well as the inherent statistical uncertainty associated with paucity of epidemiological parameters, before and after the interventions. Together with near-real time population movement and case data, our approach can be used for risk assessment for near real-time estimation of the effectiveness of different NPIs in the ongoing outbreaks in different countries. Our network-based SEIR model is methodologically robust and built on the basic SEIR models previously used to predict COVID-19 transmission in its early stages.³ Additionally, we assessed the effect of interventions by comparing estimates under various scenarios. Based on

sensitivity analyses of multiple parameters, our results on the relative effects of NPIs are robust to the possibility of changes in parameters. Considering the delay in case reporting, our approach and findings can provide critical and early evidence for outbreak control decision-making.

However, our study has several limitations. First, as our simulations were based on the parameters estimated for the cases found in the early stage of the outbreak in Wuhan, which might not account for the asymptomatic and mild infections, our study may underestimate the total number of infections. However, public awareness and enhanced case searching remained high throughout the study period, and a high proportion of infections was likely to have been detected, with nearly all reported cases eventually subjected to laboratory testing. Second, our findings could be affected by bias and confounding because the modelling is based on observations over a short period. Although we have shown that the apparent fall in incidence of COVID-19 since CNY's day in China is likely to be attributed to the interventions taken, we cannot rule out the possibility that the decrease was caused by varying timings and intensities of various NPIs taken in different areas as well as some other unknown seasonal factors, e.g. temperature and absolute humidity.^{43,44} Third, our models and findings were based on some assumptions on parameterizations. If the epidemiological parameters of COVID-19 transmission in other cities across China differed with estimates from the outbreak at the early stage where no NPIs were in place in Wuhan, then our estimates of the effectiveness of interventions in reducing COVID-19 transmission could be biased. Although previous studies have supported the consistent seasonality of travel patterns across years in China and other countries,^{14,36} the magnitude and pattern could change year by year. Additionally, inner-city travel restrictions and population contact reductions might not be highly correlated, and other data sources and further investigations are needed to explore this. Fourth, some coverage biases of mobile phone and Baidu users likely exist. Though a high percentage of the population owns mobile phones in China,⁴⁵ the mobile user group still does not cover specific subgroups of the population, particularly children, and not all mobile owners use the Baidu location-based service. Therefore, our population movement data may provide an incomplete picture, and the spatiotemporal and demographic variations in the behaviour of phone users could have biased population distribution and travel estimates. Last, we only measured the main

groups of NPIs and other interventions might also contributed to the outbreak containment, further research is needed to elaborate the effect of each intervention.

Because of the pandemic potential of the virus, should the outbreak spread widely in other countries, it will put a substantial burden on local health systems and society. From a public health standpoint, our results highlight that countries facing potential spread of COVID-19 should consider proactively planning NPIs and relevant resources for containment, given how the earlier implementation of NPIs could have lead to significant reductions in size of the outbreak in China. The results here provide some guidance for countries as to the likely effectiveness of different NPIs at different stages of an outbreak. Suspected and confirmed cases should be identified, diagnosed, isolated and reported as early as possible to control the source of infection, and the implementation of cordon sanitaires or travel restrictions for significantly affected areas may prevent seeding the virus to wider regions. Reducing contact and increasing social distance, together with improved personal hygiene, e.g. hand washing, can protect vulnerable populations and mitigate COVID-19 spread at the community level, and these interventions should be promoted throughout the outbreak to avoid the resurgence. As called for by the World Health Organization, and backed up by our findings for China here, early and integrated NPI strategies should be prepared, deployed and adjusted to maximise benefits of these interventions and minimize health, social and economic impacts in affected regions, considering the narrowing window of opportunity around the World.^{2,16}

Contributors

SL designed the study, collected data, finalised the analysis, interpreted the findings, wrote the manuscript, and interpreted the findings. NWR built the model, analysed data, interpreted the findings, and wrote the manuscript. LZ, DW, and JX collected data, interpreted the findings, commented on and revised drafts of the manuscript. JRF and OP built the model, commented on and revised drafts of the manuscript. CZ collected data, interpreted the findings and commented on and revised drafts of the manuscript. AJT interpreted the findings and revised drafts of the manuscript. AW, XD, and HY interpreted the findings and commented on and revised drafts of the manuscript. All authors read and approved the final manuscript.

Declaration of interests

We declare no competing interests.

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Data sharing

The data of COVID-19 cases reported by county, city, and province across China are available from data sources detailed in the Supplementary, and the average days from illness onset to report of the first case by each county used in the modelling are detailed in appendix Tabel S2. The mobile phone datasets analysed during the current study are not publicly available since this would compromise the agreement with the data provider, but the information on the process of requesting access to the data that support the findings of this study are available from Dr Shengjie Lai (Shengjie.Lai@soton.ac.uk), and the data of travel and contact reductions derived from the datasets and used in our model are detailed in appendix Tabel S1.

Table 1. Reports and estimates of the COVID-19 cases in mainland China, as of February 29, 2020.

Interventions and timing	Wuhan City, Hubei Province	Other cities in Hubei Province	Other provinces	Mainland China
Under current non-pharmaceutical interventions (NPIs)				
No. of cases reported (%)*	49,122 (62)	17,785 (23)	12,917 (16)	79,824 (100)
Estimated no. of cases (%)	78,910 (69)	18,503 (16)	16,912 (15)	114,325 (100)
	(51,952 - 111,280)	(11,029 - 28,685)	(9,499 - 27,033)	(76,776 - 164,576)
Dates of estimated peak number of cases	Jan 25 - 27, 2020	Jan 24 - 26, 2020	Jan 24 - 26, 2020	Jan 25 - 27, 2020
Percentage (%) of cases that could have been prevented at various intervention timings				
One week ahead	61 (45 - 79)	71 (55 - 86)	78 (62 - 90)	66 (50 - 82)
Two weeks ahead	84 (78 - 89)	90 (82 - 94)	91 (84 - 95)	86 (81 - 90)
Three weeks ahead	94 (92 - 96)	97 (95 - 99)	98 (97 - 99)	95 (93 - 97)
Estimated relative no. of cases under various NPIs, referring to the median of estimates under current interventions				
Without inter-city travel restriction	1.0 (0.6 - 1.3)	1.1 (0.7 - 1.7)	1.1 (0.7 - 1.7)	1.0 (0.6 - 1.4)
Without inner-city contact reduction	2.5 (1.7 - 3.7)	2.6 (1.5 - 4.2)	2.4 (1.2 - 4.0)	2.6 (1.7 - 3.7)
Without case early detection and isolation	5.0 (3.3 - 6.9)	5.6 (3.2 - 8.4)	5.1 (2.5 - 8.4)	5.0 (3.3 - 7.1)
Without all interventions above	51.4 (33.2 - 71.2)	91.6 (57.6 - 132.5)	124.7 (77.4 - 180)	67.3 (43.7 - 93.7)

* The reported data of COVID-19 cases were obtained from the Chinese National Health Commission as of February 29, 2020.

The median and interquartile range of estimates are provided here.

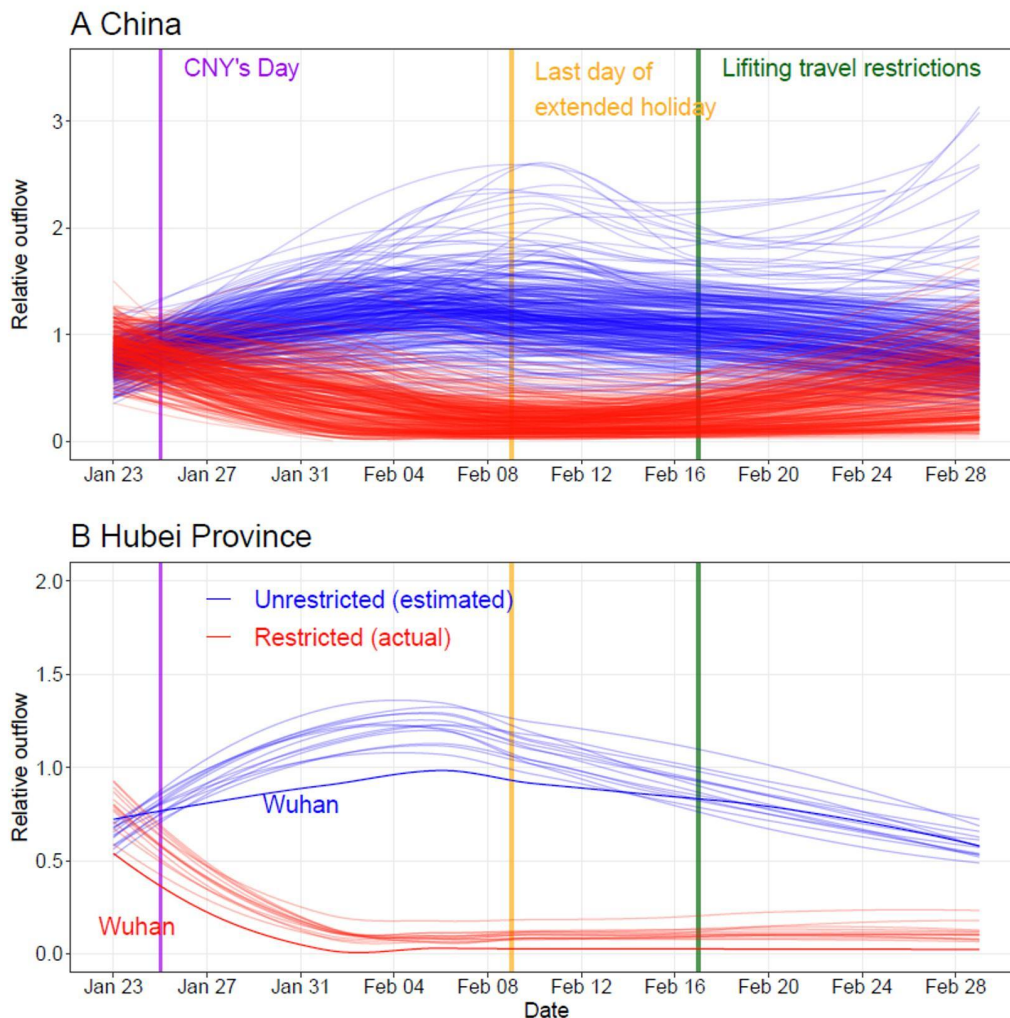


Figure 1: Relative daily volume of outbound travellers from cities (prefectural level) across mainland China during Chinese New Year (CNY) holiday, January 23rd – February 29th, 2020.

(A) All cities in mainland China. **(B)** Cities in Hubei province with Wuhan highlighted by using dark colours. Each blue line represents estimates of normal outflow by city under the scenario without travel restriction, following travel in previous years. The lines of relative volume were smoothed by using locally estimated scatterplot smoothing (LOESS) regression.

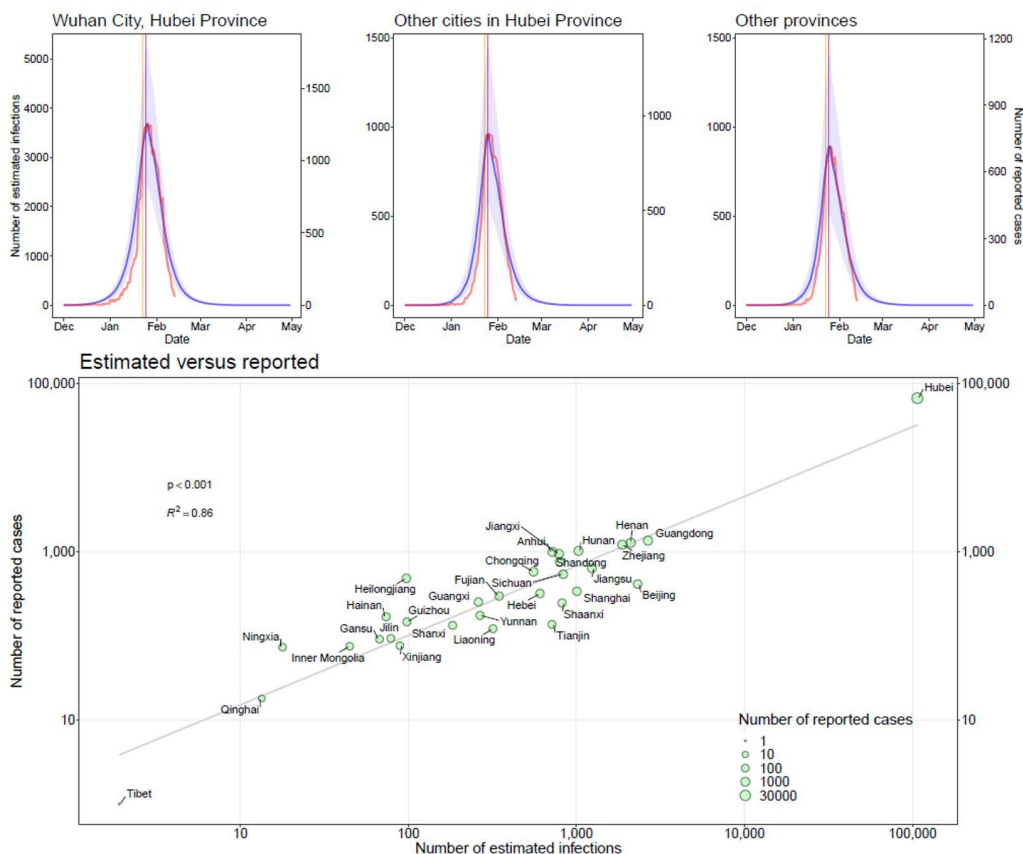


Figure 2: Estimated and reported epicurves of COVID-19 outbreak in China.

Vertical lines: orange – date of Wuhan’s lockdown; purple – Chinese New Year’s day.

The median and interquartile range (blue) of estimates of COVID-19 cases are presented with reported cases (red) by date of illness onset as of February 13, 2020.

The reported data of COVID-19 cases in the scatterplot were obtained from the Chinese National Health Commission, as of February 29, 2020.

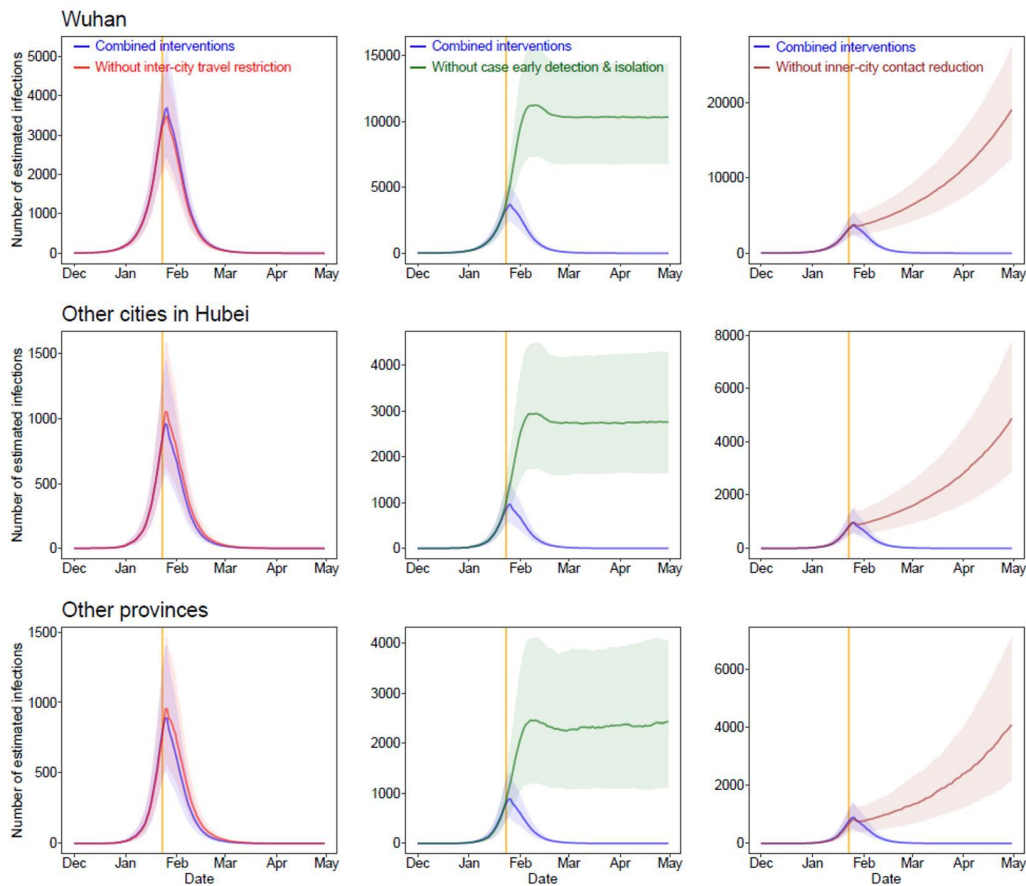


Figure 3: Estimated epicurves of COVID-19 outbreak under various scenarios with or without non-pharmaceutical interventions (NPIs) by region.

The blue lines present estimated transmission under current NPIs, and each other line represents the scenario without one type of intervention. The median and interquartile range of estimates are provided here. The orange vertical line indicates the date of Wuhan's lockdown on January 23, 2020.

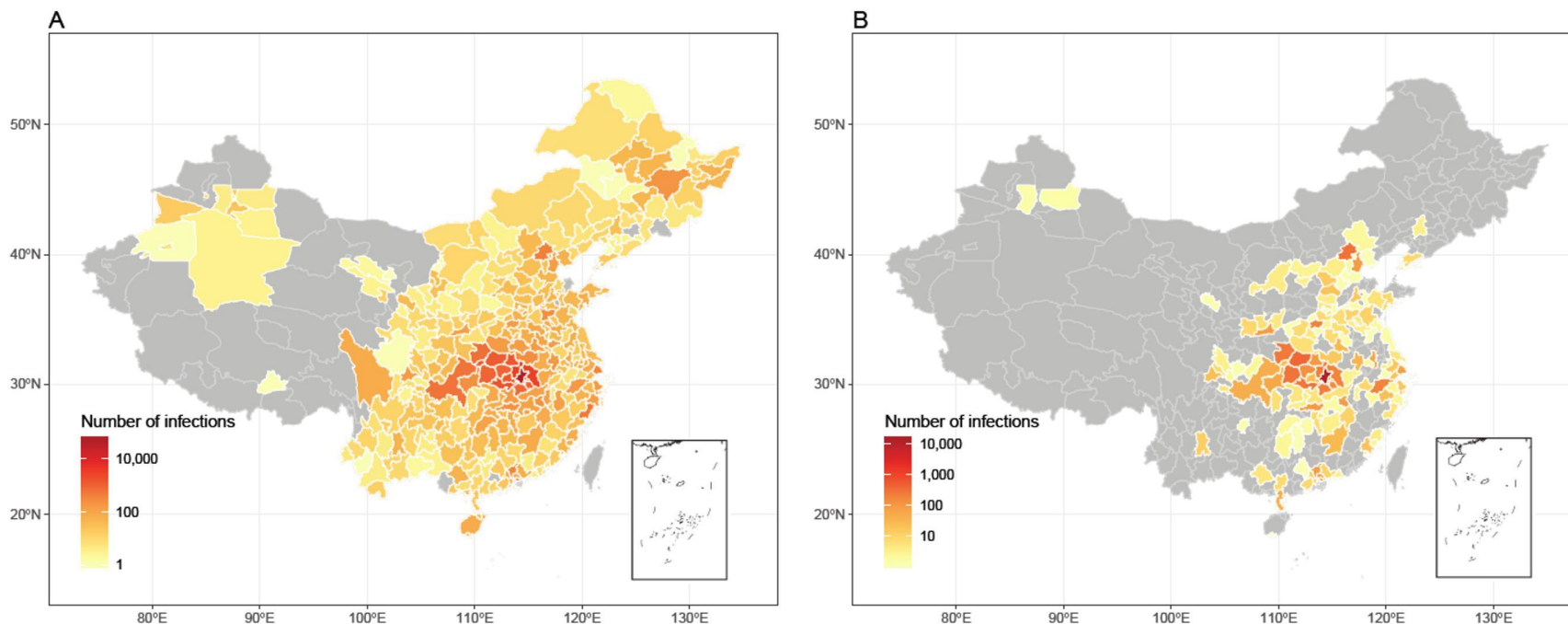


Figure 4: Affected areas of COVID-19 in mainland China as of February 29, 2020, under current interventions but with different timings.

(A) Affected areas under interventions implemented at actual timing. A total of 308 cities reported cases, based on the data obtained from national and local health authorities, as of February 29, 2020. (B) Affected areas under interventions implemented at two weeks earlier than actual timing, with an estimate of 130 cities affected.

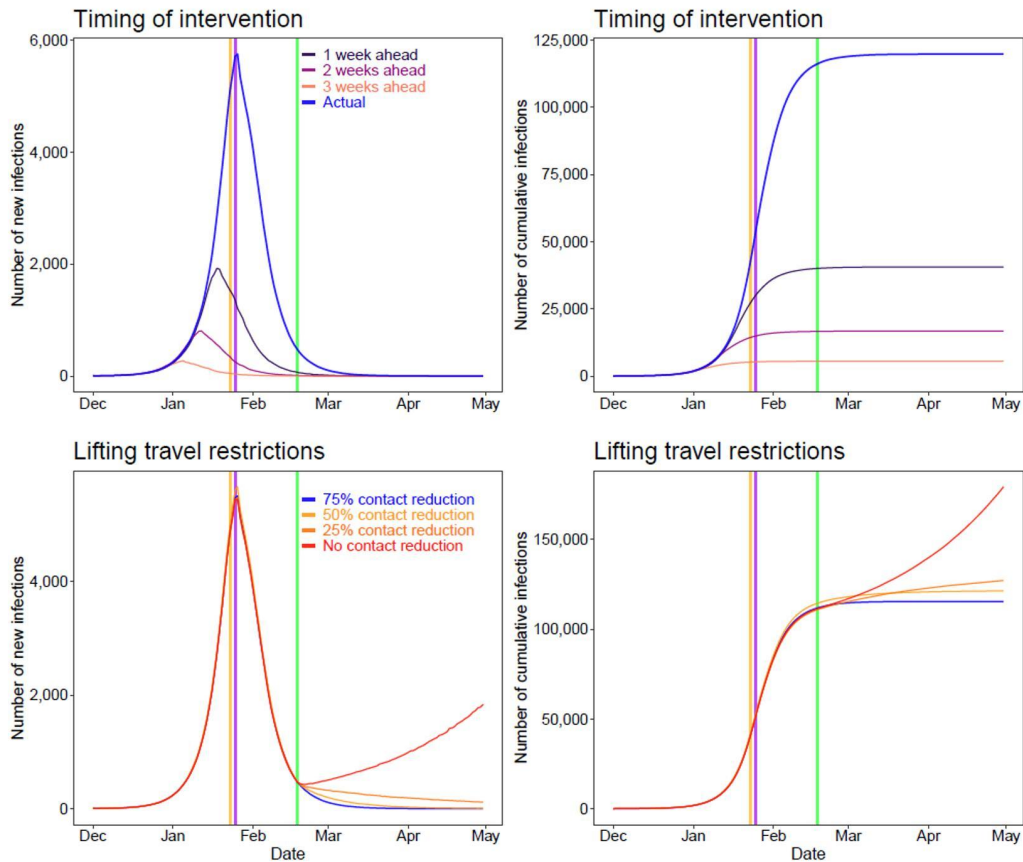


Figure 5: Estimates of the COVID-19 epidemic under various scenarios of intervention timing, travel restriction and contact reduction.

Vertical lines: orange – date of Wuhan’s lockdown; purple - CNY’s Day; green – date of lifting of travel restrictions. The epidemics under various intervention timings were estimated under current non-pharmaceutical interventions. We estimated the COVID-19 spread under different population contact rates after lifting inter-city travel restrictions across the country on February 17, 2020.

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Supporting information for

Effect of non-pharmaceutical interventions for containing the COVID-19 outbreak: an observational and modelling study

Shengjie Lai, Nick W Ruktanoncha*, Liangcai Zhou, Di Wang, Jing Xia, Olivia Prosper, Wei Luo, Jessica R Floyd, Amy Wesolowski, Chi Zhang, Xiangjun Du, Hongjie Yu, and Andrew J Tatem

Appendix Note

Data sources of COVID-19 cases

The daily and total number of COVID-19 cases reported by province and city across China as of February 29, 2020, were obtained from the websites of national and local health authorities, the Sina News (https://news.sina.cn/zt_d/yiqing0121). The data of dates of travelling from Wuhan, illness onset, first medical visit, reporting of the first index case of each county were collated from the following websites, and also detailed in previous publications.¹⁻³

- http://gx.sina.com.cn/news/gx/2020-01-24/detail-iihnzhha4423379.shtml?from=gx_cnxh
- <http://hc.jiangxi.gov.cn/doc/2020/01/22/137549.shtml>
- http://news.china.com.cn/2020-01/23/content_75643380.htm
- http://news.china.com.cn/txt/2020-01/23/content_75642508.htm
- <http://news.cnstock.com/news,bwxx-197001-4480536.htm>
- <http://news.workercn.cn/32843/202001/23/200123115628638.shtml>
- <http://news.xmnn.cn/xmnn/2020/01/22/100656796.shtml>
- <http://news.xmnn.cn/xmnn/2020/01/22/100656796.shtml> and <https://m.weibo.cn/status/4464259805726673?>
- http://wjw.hunan.gov.cn/wjw/xxgk/gzdt/zyxw_1/202001/t20200122_11163560.html
- http://wjw.jiangsu.gov.cn/art/2020/1/23/art_7290_8955651.html
- <http://wjw.nmg.gov.cn/doc/2020/01/24/284997.shtml>
- <http://wsjkw.cq.gov.cn/tzgg/20200121/249730.html>
- http://wsjkw.gd.gov.cn/zwyw_yqxx/content/post_2876057.html
- http://wsjkw.gd.gov.cn/zwyw_yqxx/content/post_2877668.html
- <http://wsjkw.hlj.gov.cn/index.php/Home/Zwgk/show/newsid/7698/navid/42/id/3>
- <http://wsjkw.km.gov.cn/c/2020-01-22/3267609.shtml>

- <http://wsjkw.sh.gov.cn/xwfb/20200121/8fa3da87b0014c9db1308c76cbfe835f.html>
- <http://www.bbtnews.com.cn/2020/0122/333568.shtml>
- <http://www.bjnews.com.cn/news/2020/01/22/677946.html>
- <http://www.bjnews.com.cn/news/2020/01/22/678127.html>
- <http://www.bjnews.com.cn/news/2020/01/24/678809.html>
- <http://www.bjnews.com.cn/news/2020/01/24/679099.html>
- <http://www.chinanews.com/sh/2020/01-23/9067672.shtml>
- http://www.cs.com.cn/xwzx/hg/202001/t20200121_6019199.html
- http://www.fcgs.gov.cn/wjw/zwgk/202001/t20200125_93696.html
- <http://www.hebwst.gov.cn/index.do?id=394856&templet=content&cid=14>
- <http://www.nhc.gov.cn/yjb/s3578/202001/930c021cdd1f46dc832fc27e0cc465c8.shtml>
- <http://www.nnnews.net/yaowen/p/3021969.html>
- http://www.sohu.com/a/368573184_120214181
- http://www.sohu.com/a/368942353_114988
- http://www.xinhuanet.com/world/2020-01/24/c_1125498544.htm
- <https://baijiahao.baidu.com/s?id=1656387834433173903&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656427296749156119&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656529973714798234&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656578420184524801&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656593400736651054&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656594579983530961&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656603308265312741&wfr=spider&or=pc>
- <https://baijiahao.baidu.com/s?id=1656603487332867925&wfr=spider&or=pc>
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- <https://focustaiwan.tw/society/202001245001>
- <https://m.weibo.cn/status/4464245485576951?>
- https://mp.weixin.qq.com/s/mgFNlaqPMB-_vNvLRKQmw
- <https://mp.weixin.qq.com/s/Y6KDD39wR8JLonG-N2kJHg>
- <https://new.qq.com/omn/20200125/20200125A01X9500.html>

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- <https://pr.moph.go.th/?url=pr/detail/2/04/137232/>
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- <https://tech.sina.com.cn/roll/2020-01-22/doc-iihnzahr5804410.shtml>
- <https://www.cdc.gov/media/releases/2020/p0121-novel-coronavirus-travel-case.html>
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- <https://www.info.gov.hk/gia/general/202001/21/P2020012100842.htm> and <https://focustaiwan.tw/society/202001210019>
- https://www.mhlw.go.jp/stf/newpage_09079.html
- https://www.mhlw.go.jp/stf/newpage_09100.html
- <https://www.moh.gov.sg/news-highlights/details/two-more-cases-of-confirmed-imported-case-of-novel-coronavirus-infection-in-singapore>
- <https://www.pbs.org/newshour/health/cdc-confirms-second-u-s-case-of-novel-coronavirus-in-chicago>
- <https://www.scmp.com/news/asia/east-asia/article/3047463/china-coronavirus-japan-confirms-second-case-health-ministry>
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- https://www.sinchew.com.my/content/content_2205270.html
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- https://www.thepaper.cn/newsDetail_forward_5610903
- https://www.thepaper.cn/newsDetail_forward_5639569
- https://www.washingtonpost.com/world/coronavirus-china-live-updates/2020/01/24/4e678f9c-3e03-11ea-afe2-090eb37b60b1_story.html
- <https://www.who.int/csr/don/14-january-2020-novel-coronavirus-thailand-ex-china/en/>
- <https://www.who.int/csr/don/17-january-2020-novel-coronavirus-japan-ex-china/en/>
- <https://www.who.int/csr/don/21-january-2020-novel-coronavirus-republic-of-korea-ex-china/en/>

Table S1. Changing pattern of travel and contact across mainland China under the COVID-19 outbreak and interventions in 2020, compared to normal travel patterns during CNY holiday in 2014.

Date	Percentage of travel and contact	SD
Before 2020-1-23	100% as normal	-
2020-1-23	90.4%	10.4%
2020-1-24	88.2%	12.6%
2020-1-25	82.3%	17.3%
2020-1-26	86.6%	19.7%
2020-1-27	75.4%	26.6%
2020-1-28	64.7%	28.8%
2020-1-29	53.6%	27.5%
2020-1-30	46.9%	25.1%
2020-1-31	33.7%	17.2%
2020-2-1	29.0%	14.1%
2020-2-2	35.8%	18.0%
2020-2-3	27.1%	13.7%
2020-2-4	19.2%	9.4%
2020-2-5	19.9%	11.2%
2020-2-6	18.5%	12.6%
2020-2-7	20.1%	16.3%
2020-2-8	24.1%	20.8%
2020-2-9	29.6% (last day of extended CNY holiday in most provinces)	25.1%
2020-2-10	21.5%	18.0%
2020-2-11	16.4%	10.8%
2020-2-12	19.7%	13.0%
2020-2-13	18.9%	11.9%
2020-2-14	19.5%	12.5%
2020-2-15	19.4%	13.7%
2020-2-16	19.4%	14.8%
2020-2-17	24.0% (lifting travel restrictions in provinces outside of Hubei)	17.3%
2020-2-18	28.5%	20.9%
2020-2-19	32.8%	24.8%
2020-2-20	34.0%	25.5%
2020-2-21	36.4%	27.5%
2020-2-22	40.5%	29.4%
2020-2-23	39.0%	29.7%
2020-2-24	48.0%	30.9%
2020-2-25	51.2%	31.8%

2020-2-26	56.1%	32.9%
2020-2-27	53.9%	32.7%
2020-2-28	59.2%	32.7%
2020-2-29	57.0%	34.1%

Table S2. The average days from illness onset to report of the first case reported by each county in mainland China.

Date	Median (days)	Inter-quate range (days)	
		q1	q3
2020-1-16	11	10	15
2020-1-17	11	9	13
2020-1-18	11	8	12
2020-1-19	10	8	11
2020-1-20	9	7	10
2020-1-21	8	6.75	9.25
2020-1-22	7	5	9
2020-1-23	6	5	8
2020-1-24	5	3	7
2020-1-25	5	4	6
2020-1-26	4	3	5
2020-1-27	3	2	4
2020-1-28	2	1	4
2020-1-29	2	1	3.5
2020-1-30	2	1	3
2020-1-31	2	1	3

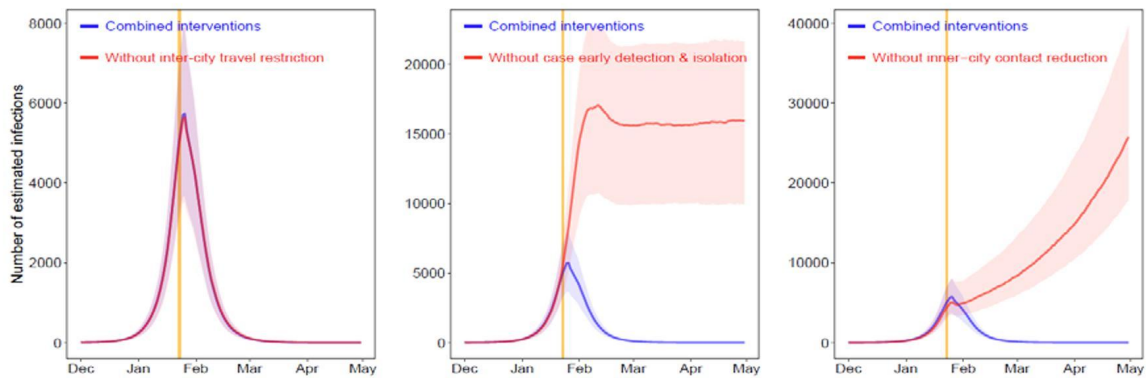


Figure S1: Estimating the COVID-19 epidemic under various scenarios with or without non-pharmaceutical interventions (NPIs) across China. The orange vertical line indicates the date of Wuhan's lockdown on January 23, 2020. The blue lines present estimated transmission under current NPIs. The median and interquartile range of estimates are provided here.

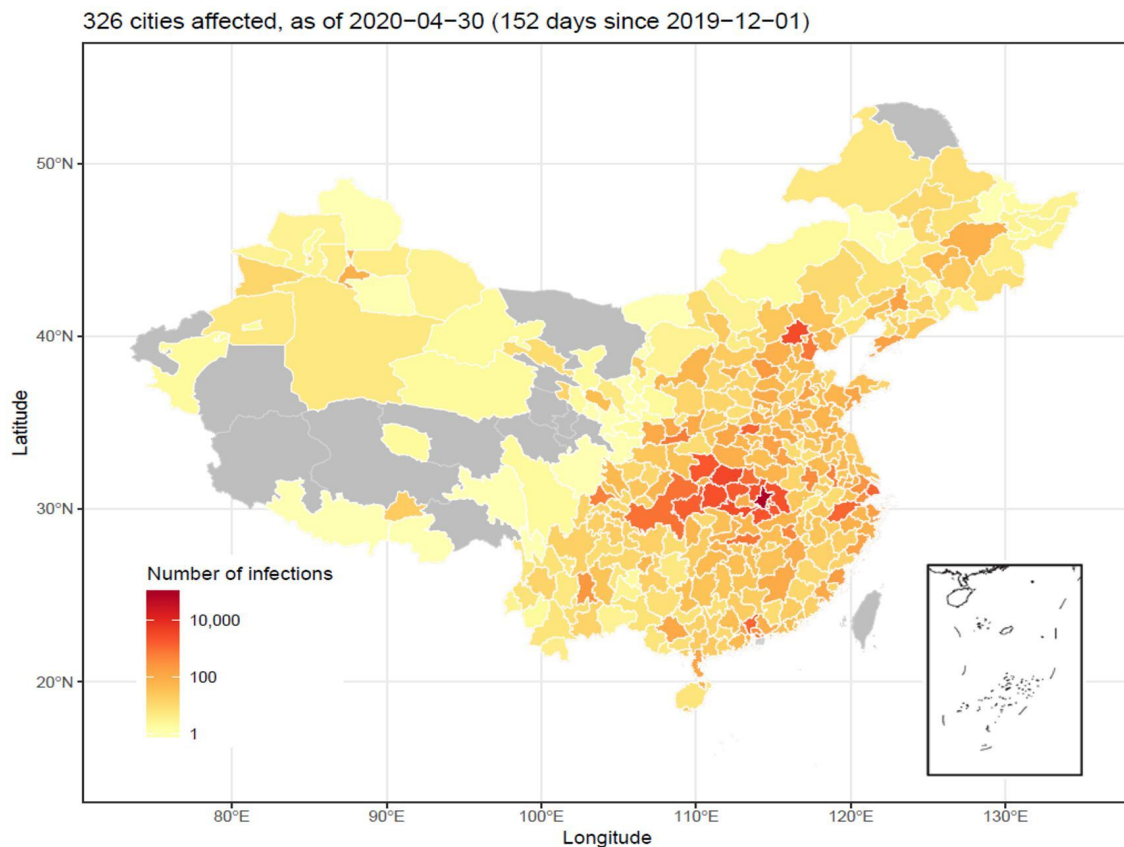


Figure S2: Estimated affected areas of COVID-19 in mainland China as of April 30, 2020, without inter-city travel restrictions.

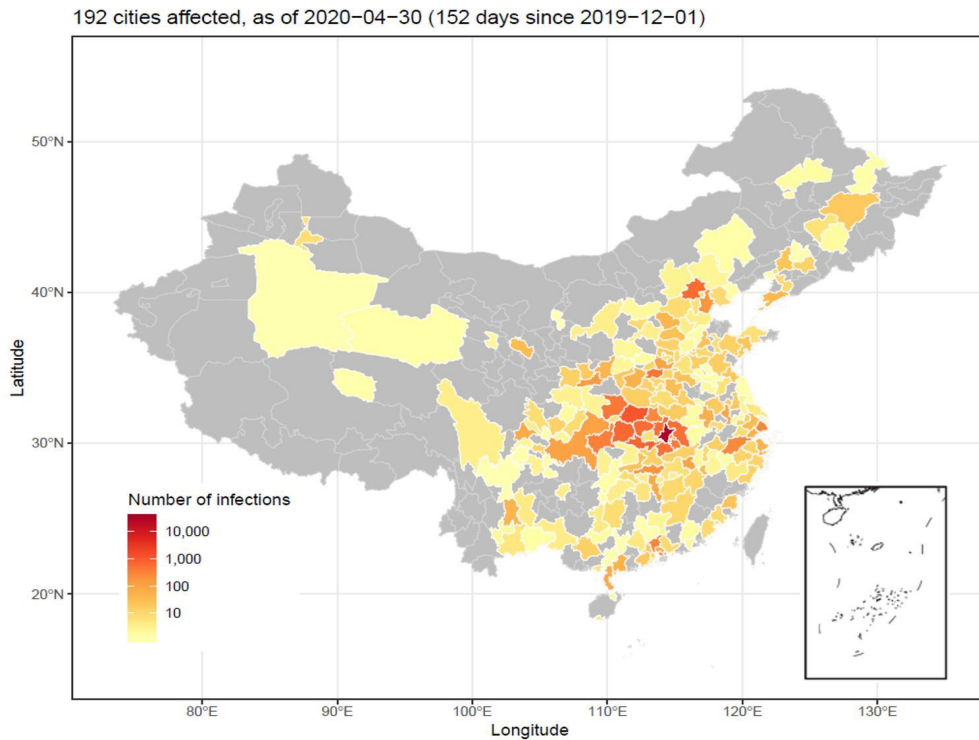


Figure S3: Estimated affected areas of COVID-19 in mainland China under interventions at one weeks earlier than actual timing.

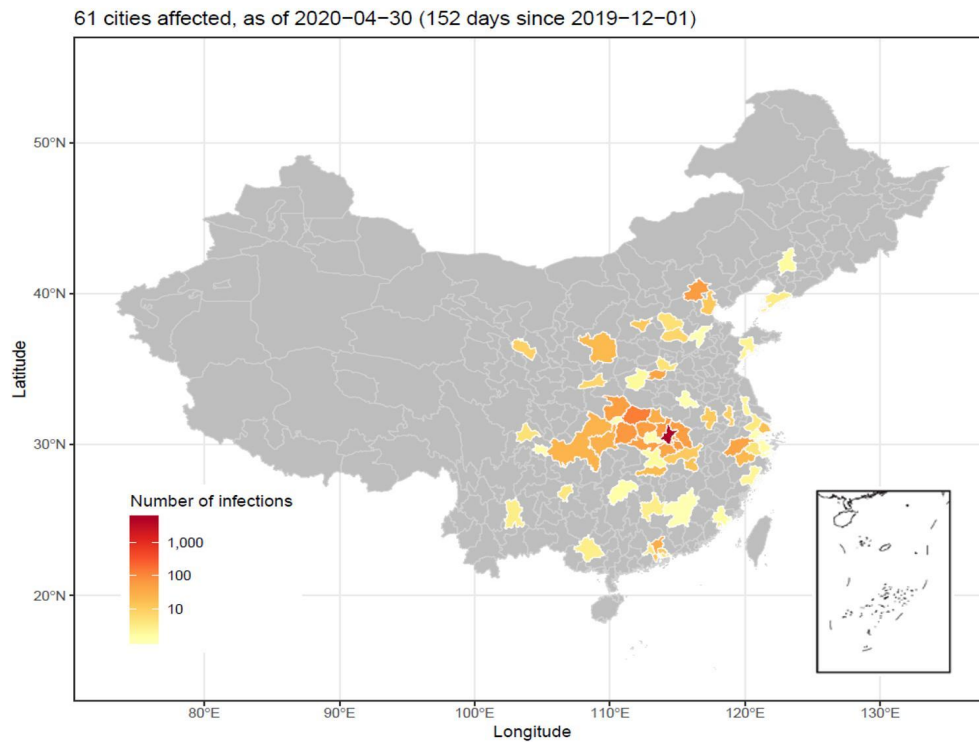


Figure S4: Estimated affected areas of COVID-19 in mainland China under interventions at three weeks earlier than actual timing.

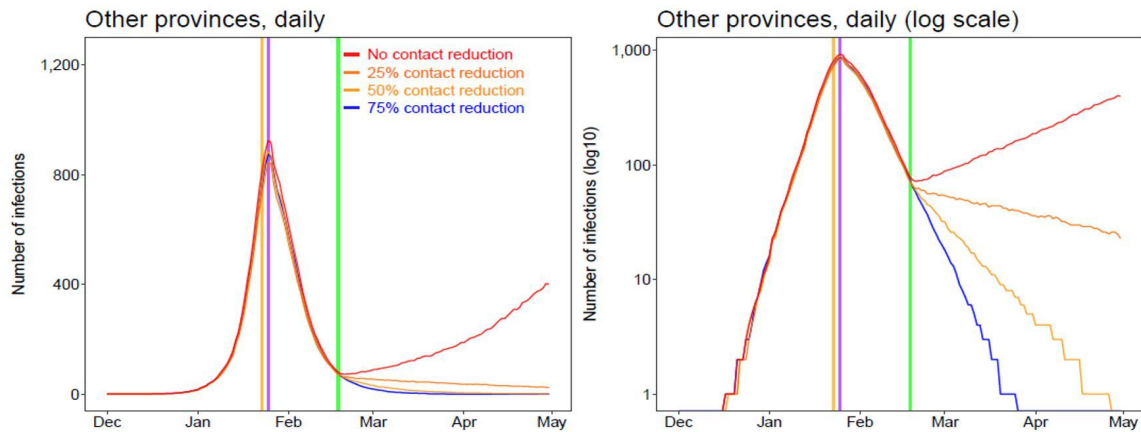


Figure S5: Estimates of the COVID-19 epidemic under various scenarios of contact reduction and lifting travel restrictions in provinces outside of Hubei Province.

We estimated the COVID-19 spread under different population contact rates after lifting inter-city travel restrictions on January 17, 2020. All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. Vertical lines: orange – date of Wuhan’s lockdown; purple - CNY’s day; green – date of lifting of travel restrictions.

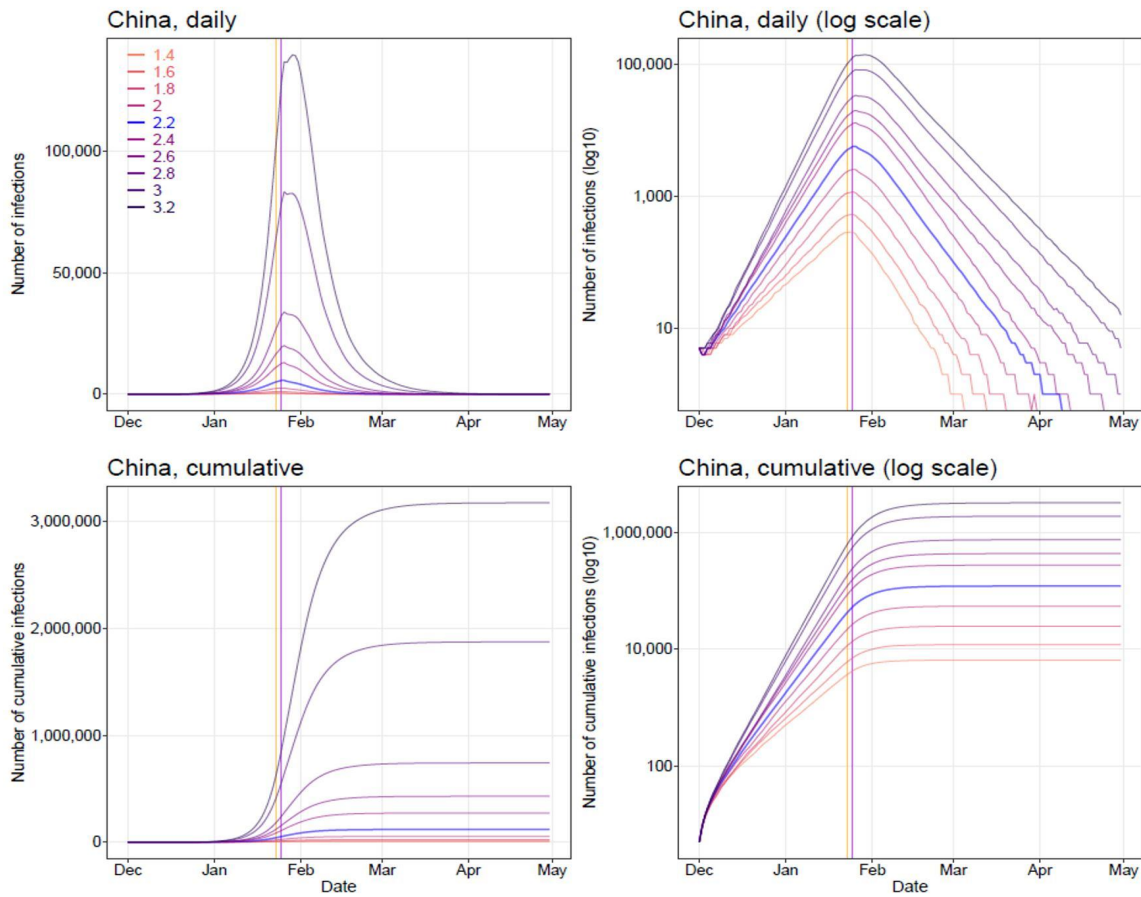


Figure S6: Sensitivity of estimates of COVID-19 epidemics under various values of R_0 .

All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. Vertical lines: orange – date of Wuhan's lockdown; purple - CNY's day.

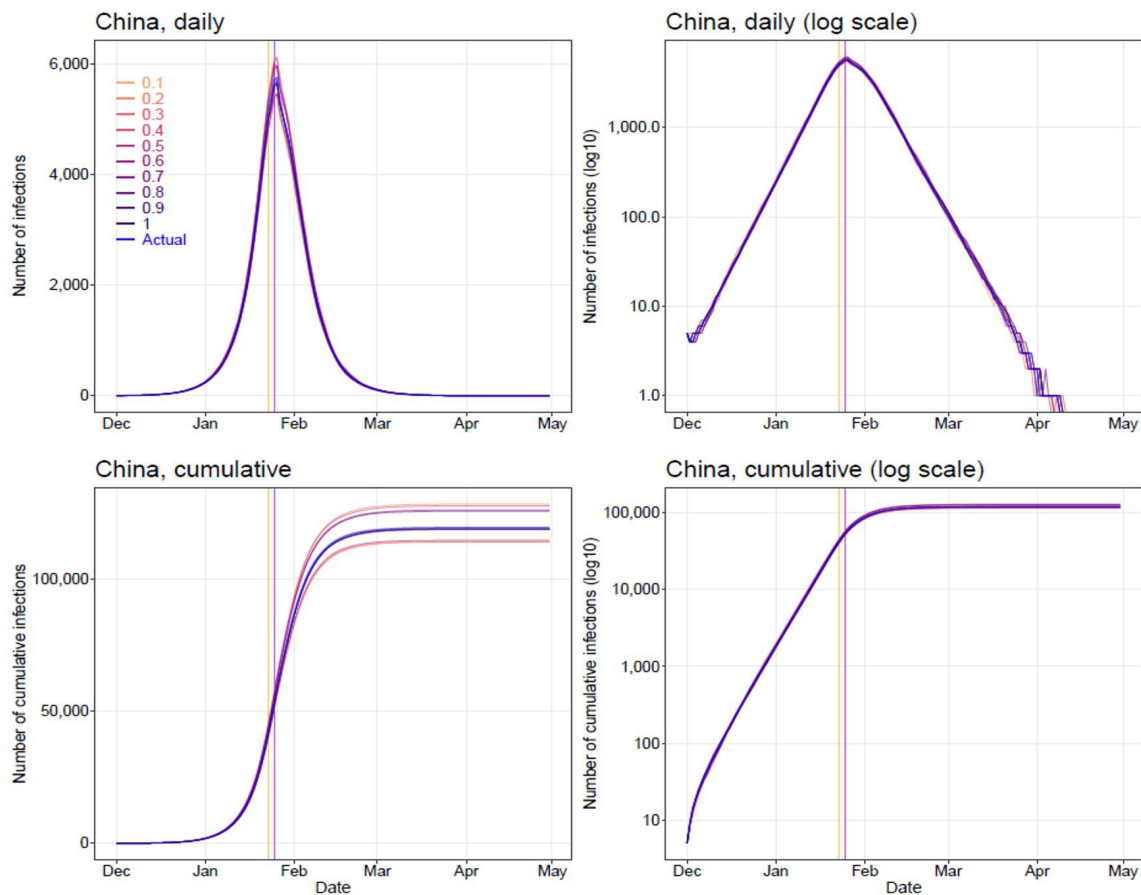


Figure S7: Sensitivity of estimates of COVID-19 epidemics under various levels of inter-city travel restrictions.

All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. The actual percentages of inter-city travel restrictions changed day-by-day across cities in China (0.1 means 90% reduction from normal travel, 1 means no travel restrictions). Vertical lines: orange – date of Wuhan's lockdown; purple - CNY's day.

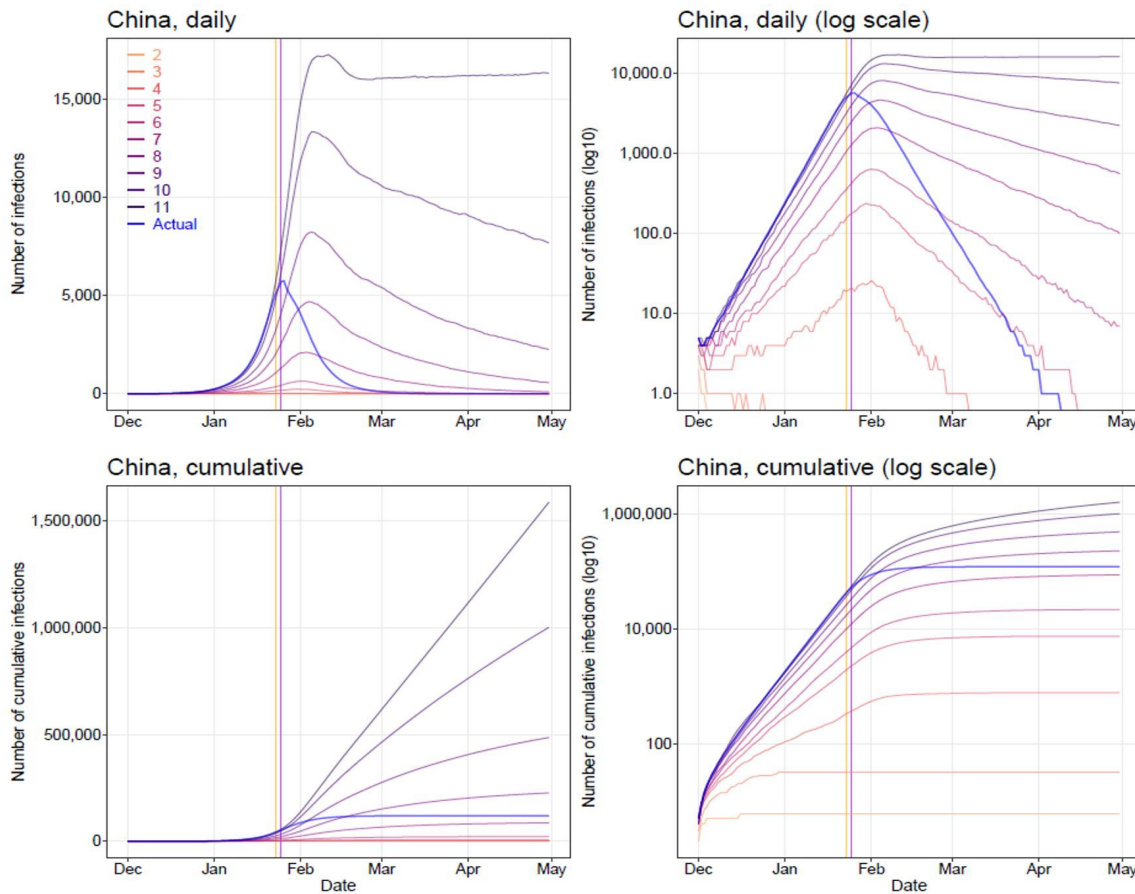


Figure S8: Sensitivity of estimates of COVID-19 epidemics under various numbers of days from illness onset to report/isolation.

All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. The actual delays of illness onset to report/isolation changed day-by-day (appendix Table S2). Vertical lines: orange – date of Wuhan's lockdown; purple – CNY's day.

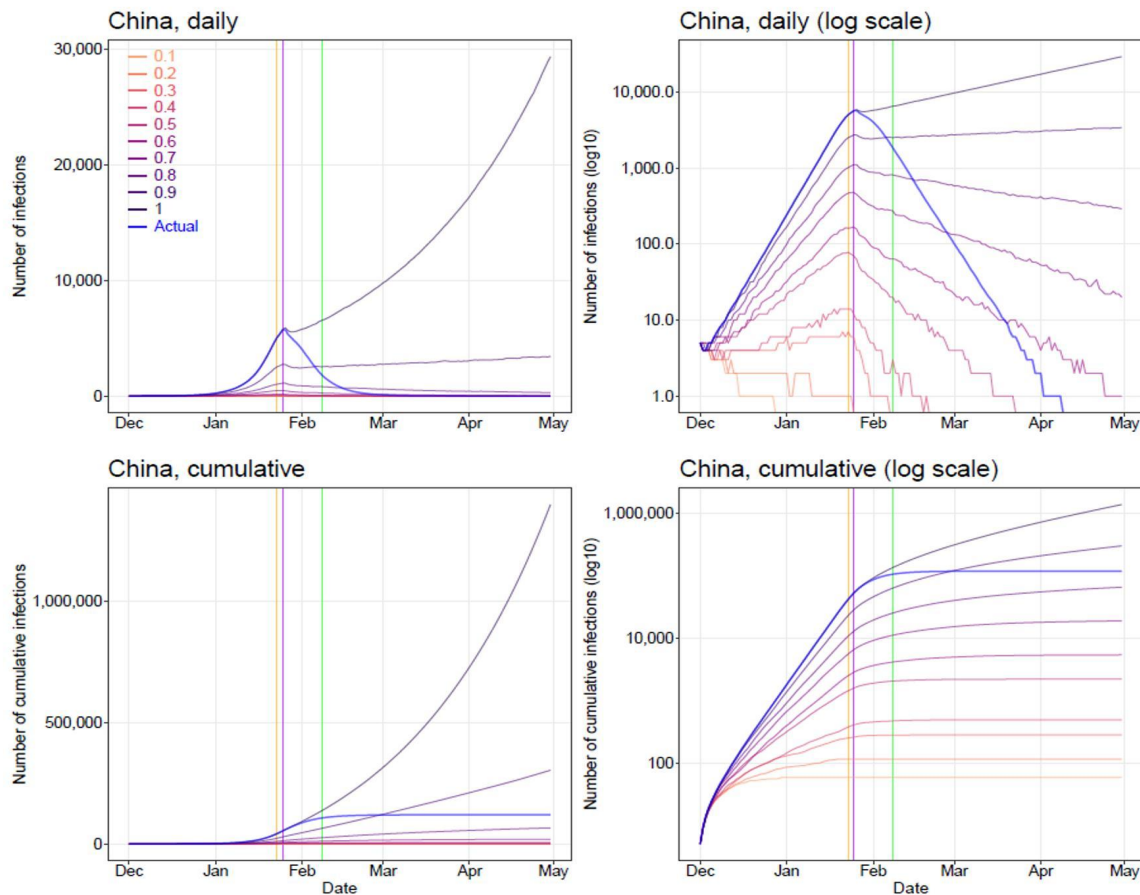


Figure S9: Sensitivity of estimates of COVID-19 epidemics under various contact rate values.

All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. The actual percentage of population contact (0.1 means 10% contact as usual, 1 means no contact restrictions) changed day-by-day across the country (appendix Table S1). Vertical lines: orange – date of Wuhan's lockdown; purple - CNY's day.

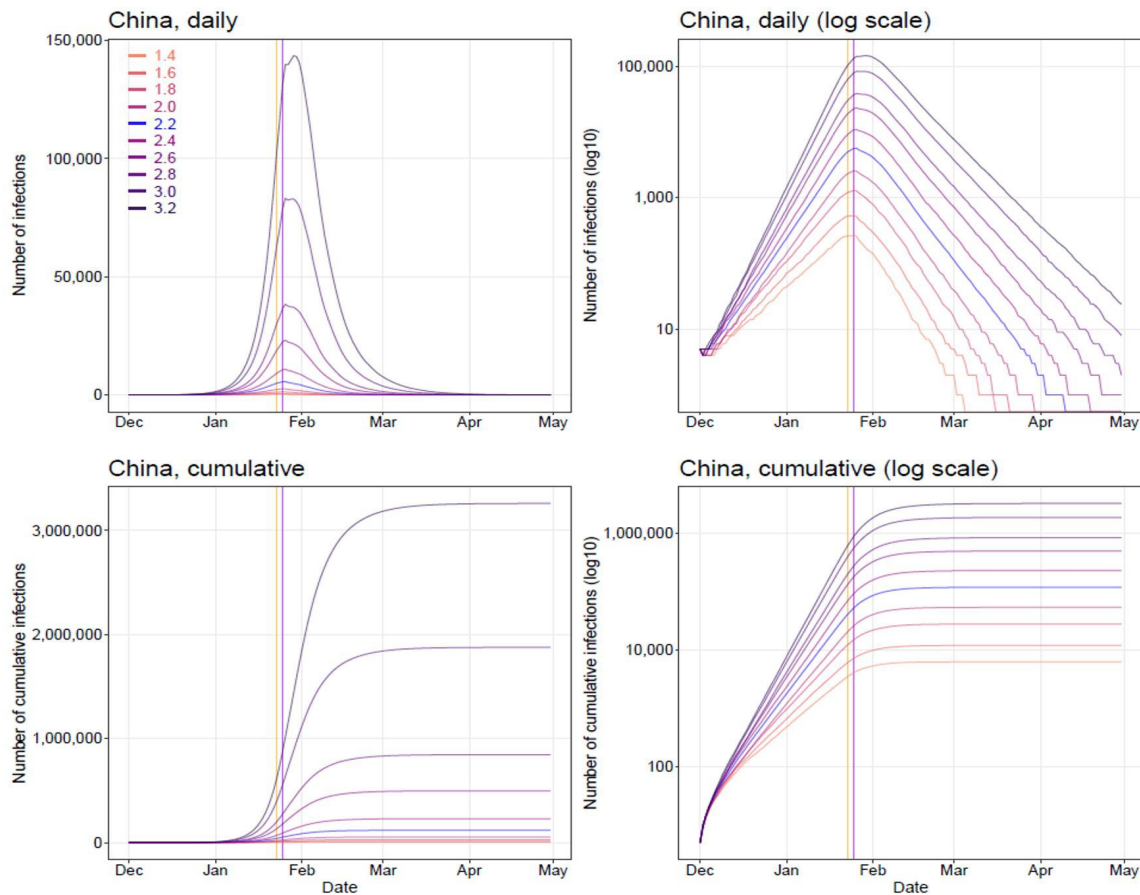


Figure S10: Sensitivity of estimates of COVID-19 epidemics under various values of R_0 and without inter-city travel restrictions. All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. Vertical lines: orange – date of Wuhan's lockdown; purple - CNY's day.

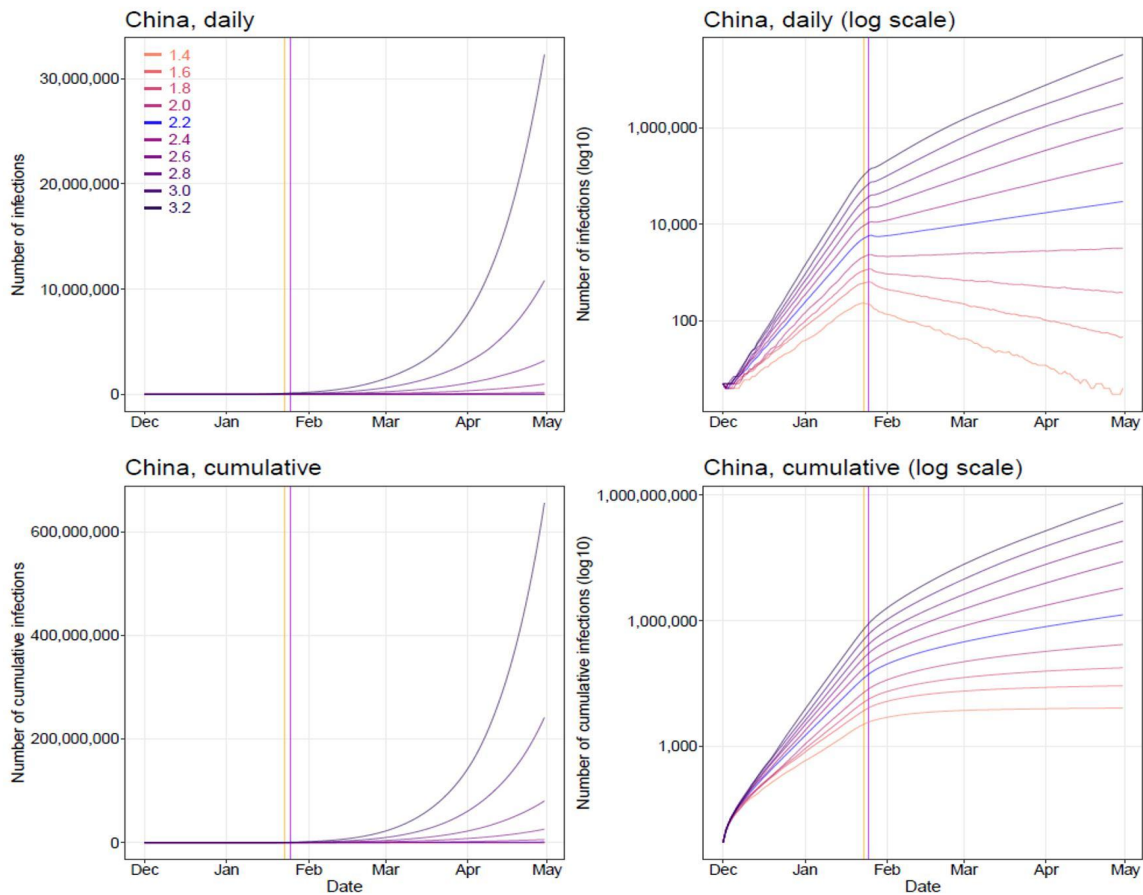


Figure S11: Sensitivity of estimates of COVID-19 epidemics under various values of R_0 but without the intervention of inner-city contact restrictions.

All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. Vertical lines: orange – date of Wuhan’s lockdown; purple - CNY’s day.

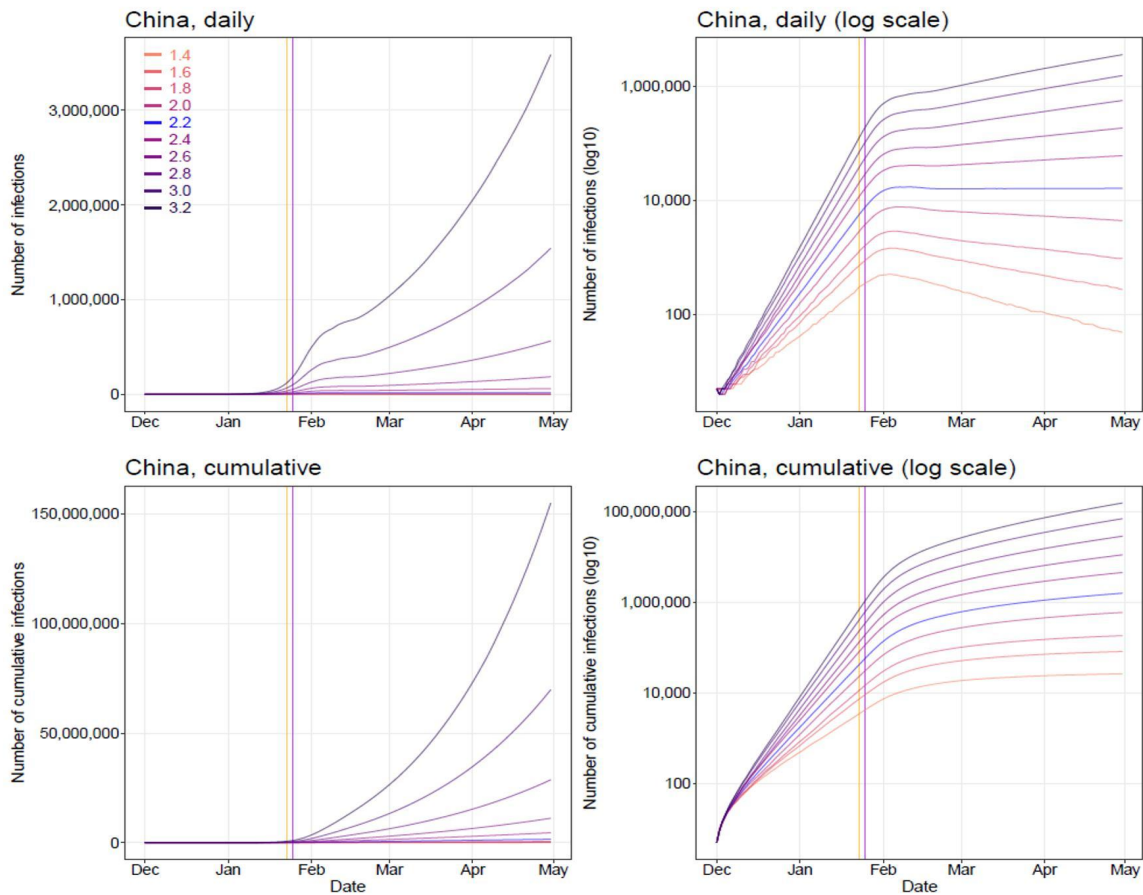


Figure S12: Sensitivity of estimates of COVID-19 epidemics under various values of R_0 but without improved timeliness of case detection and isolation.

The delay from illness onset to detection and isolation was set as a constant of 11 days as that on January 16-18, 2020. All other parameters, NPIs and input data were the same as the baseline model with $R_0 = 2.2$. Vertical lines: orange – date of Wuhan's lockdown; purple - CNY's day.

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From: Clark, Shauna
Sent: Tuesday, March 3, 2020 6:00 PM PST
To: Duchin, Jeff; Kay, Meagan; Brostrom-Smith, Claire; Kawakami, Vance; Benoliel, Eileen; Gonzales, Elysia; Baure, David; Lukoff, Margaret; Montgomery, Patricia A (DOH); nstone@cdc.gov; Stein, Kate
Subject: Evergreen Specimen Collection Site Summary 3/2/20

Hi all,

Overall, I'd like to report today was a success! The team was able to collect specimens for 28 people (that's 56 swabs!!). Here is the breakdown:

Specimens collected for:

- Lifecare HCW- 4
- Fire and Rescue – 16 (including ill family members)
- Evergreen HCW – 2
- LWTech (nursing students)- 2
- Unknown (unable to cross-match on list, will verify with Evergreen) – 4

The scheduling was smooth, with car arrival every 10 min. Flow of traffic was well managed.

Challenges include:

- One person tried to secretly video the trip through the testing site.
- One person's truck was too large, had security close road, used side stairwell to enter testing area.
- One person parked their car, took public elevator and tried to walk through testing area. Had to disinfect elevator.
- Random last minute additions to the list (scrambling staff)
- Kirkland FD Union President came on-site trying to get information (referred to Tom Ray)
- 3 FD workers lingering while supporting friends during testing.

I drove the specimens to WAPHL, with arrival of 2:50 pm

I can provide more details tomorrow.

Plan:

Specimen collection site in operation 10am – 4pm Wednesday, Thursday and Friday this week with approx 30-36 people planned per day. **NO OTHERS to be added for testing at this site!**

Best,

Shauna Clark, RN

Public Health Nurse

Public Health – Seattle and King County

Communicable Disease Epidemiology & Immunization Section

Direct: (206) 263-1521 | Main: (206) 296-4774 | Fax: (206) 296-4803

From: Duchin, Jeff
Sent: Wednesday, March 4, 2020 9:21 PM PST
To: Duchin, Jeff; Kathy Lofy (Kathy.Lofy@DOH.WA.GOV); Clark, Thomas A. (CDC/CCID/NCIRD); Jernigan, John A.; Kay, Meagan
Subject: Air, Surface Environmental, and Personal Protective Equipment Contamination by Severe Acute Respiratory Syndrome Coronavirus 2

<https://jamanetwork.com/journals/jama/fullarticle/2762692>

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP)
Sent: Monday, March 2, 2020 11:33 AM PST
To: Kay, Meagan; Hersh, Dorene; Duchin, Jeff; Patel, Resham; Montgomery, Patricia A (DOH); Clark, Shauna; Barbour, Samantha
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Subject: RE: from call

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I can be POC here on the ground for CDC questions regarding infection control needs. Yes I think Lifecare and Evergreen priority, but this could change. Also, there could be some nuance regarding which facilities need which kind of PPE, so before delivery it would be good to confirm with them what their needs are. (I know for a fact Lifecare needs face shields)

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Thanks!
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2500 face shields exp

5000 small, 10000 **med** and 10000 large, and 5000 xl level 2 **gowns** new

Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) **new**

100k N95s **3M** 8210 **new**

Packing as we speak, arrive in am.

From: Berliner, Debra
Sent: Tuesday, March 3, 2020 10:16 AM PST
To: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
CC: Kay, Meagan; Duchin, Jeff; Li-Vollmer, Meredith; Bogan, Sharon; Cole, Kate; Karasz, Hilary; Rigel, Sara; Flamiatos, Ellen; Morris, Yolanda; Alexandra.montano@doh.wa.gov; Harry, Cynthia S (DOH); Lewis, James; Cole, Kate
Subject: Request for CDC's Draft Phased Mitigation Plan for Schools
Attachments: Minutes_School Guidance_02MAR20 KAE comments.docx

Thanks so much, Agam and Tom, for the attached minutes from yesterday's CDC call about schools. Can you please share the CDC's draft Phased Mitigation Plan with me and my PHSKC and DOH colleagues (cc'd here)? Also, do you know CDC's timing for releasing shareable, concise guidance about social distancing and cancellations in schools?

As you may know, we are getting a ton of questions from schools, early learning program, and higher ed. institutions on these topics, and would like to issue guidance as soon as possible that aligns with CDC recommendations.

(PHSKC and DOH colleagues: here's a bit more context. Agam and Tom are two CDC subject matter experts stationed in our office during the response. Yesterday, the CDC held a small call for health department staff in jurisdictions that have had COVID-19 cases with unknown origin. The attached notes summarize everything discussed on the call.)

Thanks so much for your help,
Debra

Debra Berliner, MPH (she/her/hers)
Immunization Educator Consultant, Immunization Program
Public Health - Seattle & King County
401 5th Ave, Ste 1250, Seattle, WA 98104
P (206) 263-4161 | F (206) 296-4803

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>
Sent: Tuesday, March 3, 2020 7:00 AM
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Cc: Berliner, Debra <DBerliner@kingcounty.gov>
Subject: RE: School guidance

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I reviewed these minutes and they are accurate and describe what I gathered from the call as well. In light of all the school closures occurring in WA state today: one sentence stood out to me "The value of school closure for deep cleaning due to a potential case is only merited when someone with symptomatic disease is in the school. Not recommended in general."

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Sent: Monday, March 2, 2020 9:41 PM
To: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>
Cc: dberliner@kingcounty.gov
Subject: FW: School guidance

I'll ask Agam to please review in AM and modify based on her recollection of the call, but here are the notes.

tom

From: Belay, Ermias (CDC/DDID/NCEZID/DHCPP) <ebb8@cdc.gov>
Sent: Monday, March 2, 2020 6:28 PM
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Ethier, Kathleen (CDC/DDID/NCHHSTP/DASH) <kbe0@cdc.gov>; McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP) <fzh7@cdc.gov>; Smith, Emily (CDC/DDID/NCIRD/ID) <njn4@cdc.gov>; Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>
Cc: Moulia, Danielle L. (CDC/DDID/NCIRD/OD) (CTR) <ww8@cdc.gov>; Verani, Jennifer R. (CDC/DDPHSIS/CGH/DGHP) <qzr7@cdc.gov>; Ricaldi Camahuali, Jessica (CDC/DDID/NCHHSTP/DTE) <mpi7@cdc.gov>; Fisher, Marc (ACF) <Marc.Fisher@acf.hhs.gov>; Mead, Paul (CDC/DDID/NCEZID/DVBD) <pfm0@cdc.gov>; Braden, Chris (CDC/DDID/NCEZID/OD) <crb5@cdc.gov>; Park, Benjamin (CDC/DDID/NCEZID/DHQP) <bip5@cdc.gov>; Rekant, Steven I. (CDC/DDPHSS/CSELS/DSEPD) <wny6@cdc.gov>; Cieslak, Paul (CDC dhsosha.state.or.us) <paul.r.cieslak@dhsosha.state.or.us>; Leman, Richard (CDC dhsosha.state.or.us) <richard.f.leman@dhsosha.state.or.us>; SIDELINGER DEAN E <DEAN.E.SIDELINGER@dhsosha.state.or.us>; Jeanne Thomas L <THOMAS.L.JEANNE@dhsosha.state.or.us>; Pierce, Rebecca (CDC dhsosha.state.or.us) <rebecca.a.pierce@dhsosha.state.or.us>; Calderwood, Laura (CDC/DDID/NCIRD/DVD) <ofc1@cdc.gov>; Pindyck, Talia (CDC/DDID/NCEZID/DFWED) <NRB1@cdc.gov>; Milucky, Jennifer Lynn (CDC/DDID/NCIRD/DBD) <wii7@cdc.gov>; Rekant, Steven (CDC dhsosha.state.or.us) <steven.rekant@dhsosha.state.or.us>; dberliner@kingcounty.gov; barb.osterman@phd.sccgov.org; Rigel, Sara <Sara.Rigel@kingcounty.gov>
Subject: RE: School guidance

Please see the minutes from the school guidance conference call.

Ermias
LNO Washington investigation team

-----Original Appointment-----

From: Belay, Ermias (CDC/DDID/NCEZID/DHCPP)
Sent: Monday, March 2, 2020 12:42 PM
To: Belay, Ermias (CDC/DDID/NCEZID/DHCPP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Ethier, Kathleen (CDC/DDID/NCHHSTP/DASH); McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP); Smith, Emily (CDC/DDID/NCIRD/ID); Rao, Agam K. (CDC/DDID/NCEZID/DHCPP)
Cc: Moulia, Danielle L. (CDC/DDID/NCIRD/OD) (CTR); Verani, Jennifer R. (CDC/DDPHSIS/CGH/DGHP); Ricaldi Camahuali, Jessica (CDC/DDID/NCHHSTP/DTE); Fisher, Marc (ACF); Mead, Paul (CDC/DDID/NCEZID/DVBD); Braden, Chris (CDC/DDID/NCEZID/OD); Park, Benjamin

(CDC/DDID/NCEZID/DHQP); Rekant, Steven I. (CDC/DDPHSS/CSELS/DSEPD); Cieslak, Paul (CDC dhsoha.state.or.us); Leman, Richard (CDC dhsoha.state.or.us); SIDELINGER DEAN E; Jeanne Thomas L; Pierce, Rebecca (CDC dhsoha.state.or.us); Calderwood, Laura (CDC/DDID/NCIRD/DVD); Pindyck, Talia (CDC/DDID/NCEZID/DFWED); Milucky, Jennifer Lynn (CDC/DDID/NCIRD/DBD); Rekant Steven; dberliner@kingcounty.gov; barb.osterman@phd.sccgov.org; Rigel, Sara

Subject: School guidance

When: Monday, March 2, 2020 3:00 PM-3:30 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Skype Meeting

Share with others as you see fit.

Ermias

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(855) 348-8390,,9312949# (Atlanta Dial-in Conference Region)

English (United States)

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School Guidance

03/02/20

3:00-3:30 PM EST

Attendees: Jennifer McQuiston (California LNO), Ermias Belay (Washington LNO), Emily Smith, Agam Roa, Jennifer Verani (Solano County), Thomas Clark, and Ben/Danny/Marina/Barb (Santa Clara County and CDC), Paul Cieslak, Talia Pindyck, Sara Rigel, Debra Berliner (King County), Chris/Paul (CDPH), Jam Satterwhite, Kathleen Ethier (CDC\CMTF)

Meeting Minutes

- Purpose
 - Large question about positive case identification in schools
 - Area of interest in many jurisdictions
- Big questions
 - What is the threshold for closure of school or all schools in district?
 - What constitutes close contact in this setting?
 - What type of symptoms do you consider when starting the 14-day clock?
- Oregon situation summary of positive case in school
 - First positive case
 - Custodial worker in an elementary school; Not lot of contact with student
 - District had capacity to test and no big back log so considering illness in anyone in school and interested in testing all
 - Patient's wife is infected; 5 yo son tested equivocal and retesting will likely be positive.
 - 5 yo son attended kindergarten at a different school
 - No actions have been taken yet at the kindergarten
 - Showed mild cold symptoms
 - Third positive case (in eastern Oregon)
 - No known travel history
 - School exposure through attendance of basketball tournament
- Phased approach (based on what we've learned from other countries as well as limited school outbreaks in this country.)
 - Framework issue because nobody understands the role of schools in transmission of this virus
 - No school cases yet but are currently developing county mitigation strategy based off Singapore's phased approach due to their success in little school transmission
 - Phased Approach
 - All about community and community transmission
 - Until cases are linked to specific schools, consider social distancing rather than closing schools
 - Examples of social distancing:
 - Staggering recess, cancel assemblies, inter-school competitions, sports games
 - For schools with a positive case:
 - Take opportunity for contact tracing in school by closing school for 2-5 days to see contacts interaction with rest of school and scale appropriately.

- Can keep the people a sick child or staff member has interacted with away from school.
 - Use that time to clean and disinfect too.
- For schools with positive case who is admin or high spreader:
 - Potentially close for 2 weeks.
- For all schools:
 - Did regular health checkups of students, staff and (e.g., check for symptoms, fever)
- There is a draft phased mitigation plan that includes recommendations for schools, but it is not yet publicly available.
 - Individual communities grappling with this now have received drafts from CDC staff and those that are still in need may contact local CDC staff.
- There is currently no evidence for preemptive school closure based on general community cases
 - If you start to experience lots of absenteeism then maybe signal that there is an issue at that school
 - Singapore did not do this. Hong Kong did and is not sure if it would do it again.
 - Singapore did not notice school closure effect on larger epidemic
 - Preemptive closures could blunt curve of outbreak, even though disruptive, and you may need to do it early to be impactful, but evidence is lacking
- Oregon
 - School closures in Oregon would be extreme and their threshold would be high
 - If some critical proportion of students are absent, then school finds it impractical to go on and they close for that reason but usually don't forcibly close otherwise
- Overall: Decisions are a case-by-case basis
 - CDC wouldn't tell an individual district to not close schools, but they also wouldn't recommend it; CDC supports community's approach
 - Closing school can be an extreme disruption to a community, so take common sense measures and don't close right away if possible
 - Hard to know when to get everybody back into school after taking everybody out
 - Do what is necessary for the individual school in a way that reduces widespread transmission and at the same time maintains continuity of services and education. As little disruption as possible.
 - The value of school closure for deep cleaning due to a potential case is only merited when someone with symptomatic disease is in the school. Not recommended in general.
 - Colleges, universities, and other institutes of higher education
 - Same approach would be recommended
 - However, differences exist, and the situation is more complex
 - Lots of people residing in dorms, larger groups, meal services, and more congregation.
 - Early learning and childcare settings
 - Same approach would be recommended

From: Elsenboss, Carina
Sent: Tuesday, March 3, 2020 7:25 AM PST
To: Hayes, Patty; Worsham, Dennis; Duchin, Jeff; Gedeon, Michael; Ulrey, Ingrid
Subject: Federal Assistance & Call Center
Attachments: RE update on Life Care.msg, RE Fit testing.msg

Hello-

HHS is working through our request for medical staffing support, RN/LPN and CNA to support LifeCare (see attached). Working through the logistics of this is a priority for today as well as call center operations and testing at Evergreen.

To recap: the feds/HHS/ASRP would not come unless LifeCare said they would not bill Medicaid for the services provided by federal assets and they agreed (see attached). We know this is very problematic and CDC on site staff and DOH are working to change this but we could not move forward with our request to HHS unless we had this in writing.

Ingrid – can I have your help with working on this issue with DOH and at a federal level?

Also, HHS is requesting fit testing support for their staff not fit tested and for those staff that are fit tested they will be wearing N95. This is not the PPE being worn currently at LifeCare is my understanding. This could be problematic. We would then need to secure additional N95 and should also plan on fit testing LifeCare staff.

Jeff – I understand that current CDC guidance requires N95 in a healthcare setting. Do we know if this will change in the next couple of days? Are we currently working with LifeCare to recommend N95?

Call Center will be operational today and messaging going out. It is currently staffed by PHRC volunteers and additional recruitment is underway. In addition, Cd-Epi has requested overnight call center support for their on-call work. I think the best approach is to contract with a nurse line for this service. I do not think we will be successful running a 24/7 call center out of Chinook and securing enough staff and volunteers. I thought the Insurers were setting up a call center but have not heard any details on that.

Michael / Dennis – can we explore contracting with Evergreen Nurse Line for this service? EH, according to CPRES, currently has a contract in place that we could potentially piggy-back on. I thought EMS had one as well.

Another focus for today is working on our organizational structure. There are a lot of injects coming in that are distracting from our life/safety focus and we need to address that.

Thanks,
Carina

Carina Elsenboss, MS
Preparedness Director

Public Health – Seattle & King County
401 5th Avenue, #1300 :: Seattle, WA 98104
D: 206.263.8722 C: 206.255.7108 F: 206-296.0629
E: carina.elsenboss@kingcounty.gov

From: Elsenboss, Carina
Sent: Monday, March 2, 2020 4:03 PM PST
To: Smart, John (OS/ASPR/EMMO); West, Julie
CC: DOH-OSC (DOH); Cockrill, Jennifer (OS/ASPR/EMMO)
Subject: RE: update on Life Care
Attachments: FW Federal Resource Request for staffing.msg

Hello –

Here is the staffing info and letter.

From: Smart, John (OS/ASPR/EMMO) <John.Smart@hhs.gov>
Sent: Monday, March 2, 2020 2:54 PM
To: Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>; West, Julie <Julie.West@kingcounty.gov>
Cc: DOH-OSC (DOH) <doh-osc.imt@doh.wa.gov>; Cockrill, Jennifer (OS/ASPR/EMMO) <Jennifer.Cockrill@hhs.gov>
Subject: RE: update on Life Care

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Apologies – a few additional questions:

1. What was the existing patient to staff ratio for the facility?
To serve 108 staff.

SHIFT	RN	CNA
Day (7A -3:30P)	5	10
Evening (3P-11P)	5	10
Night (11P-7P)	3	6

2. Has the ratio changed with the COVID-19 outbreak and what is it now?

SHIFT	RN	CNA
Day (7A -3:30P)	Have: 2 Need: 3-4	Have: 8 Need: 2
Evening (3P-11P)	Have: 1-2 Need: 4	Have: 7 Need: 3
Night (11P-7P)	Have: 1 Need: 2	Have: 3 Need: 3

From: Smart, John (OS/ASPR/EMMO)
Sent: Monday, March 2, 2020 2:49 PM
To: Carina Elsenboss (carina.elsenboss@kingcounty.gov) <carina.elsenboss@kingcounty.gov>; Julie.West@kingcounty.gov
Cc: DOH-OSC (DOH) <doh-osc.imt@doh.wa.gov>; Jen Cockrill <Jennifer.Cockrill@hhs.gov>
Subject: RE: update on Life Care

Hi Carina and Julie.

I just completed a brief with the national ASPR IMT. We were able to answer most of the questions. A couple of pieces of feedback:

1. ASPR will triage tonight and give initial feedback on anticipated timeline tonight or tomorrow AM.
2. Federal support may be provided for up to 30 days to provide facility personnel respite and for a corporate/local/state operational plan to be developed.

If you have a 213RR available in any form, I can use what you've already developed to submit on the federal side. Trying to save keystrokes if possible. Thanks.

John Smart

Captain, U.S. Public Health Service

Field Operations and Response Division - Region 10 (Seattle)

HHS/ASPR/Emergency Management and Medical Operations

206.615.2506 (office – typically forwarded to cell)

New cell: 202.304.0043

john.smart@hhs.gov

aspr.r10@hhs.gov (regional email)

New regional number: 206.615.2600 (on call duty officer and regional phone directory)

HHS ASPR Secretary's Operations Center: 202-619-7800

ASPR Region 10 Team

LCDR Jennifer Cockrill – REC, (206) 615-2535 Jennifer.Cockrill@hhs.gov

Moji Obiako – Medical Reserve Corps Liaison, (206) 615-2025, Moji.Obiako@hhs.gov

David Csernak – HPP Field Project Officer, (301) 974-7816, David.Csernak@hhs.gov

John Duffy – Medical Countmeasures Advisor, (202) 680-3624, John.duffy@hhs.gov

From: DOH-OSC (DOH) <doh-osc.imt@doh.wa.gov>

Sent: Monday, March 2, 2020 1:48 PM

To: Davis, Jerrod (DOH) <Jerrod.Davis@DOH.WA.GOV>; Smart, John (OS/ASPR/EMMO)

<John.Smart@hhs.gov>

Subject: FW: update on Life Care

From: West, Julie [<mailto:Julie.West@kingcounty.gov>]

Sent: Monday, March 2, 2020 10:19 AM

To: DOH-OSC (DOH) <doh-osc.imt@doh.wa.gov>

Subject: update on Life Care

Hi Matthew,

Carina is in meetings right now and has forwarded the following information .

Thanks for your assistance on helping to f

From: Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>

Sent: Monday, March 2, 2020 10:16 AM

To: West, Julie <Julie.West@kingcounty.gov>

Cc: Patel, Resham <Resham.Patel@kingcounty.gov>

Subject: Fwd: update on Life Care

We need LPN and RN for evening and night shift. Working on a 213RR to go to state.

Carina Elsenboss

Public Health - Seattle & King County

o: 206.263.8722 | c: 206.255.7108 | carina.elsenboss@kingcounty.gov

From: Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>

Sent: Sunday, March 1, 2020, 7:40 PM

To: Patricia.montgomery@doh.wa.gov

Cc: Patel, Resham; Levy, Alison; EOC Logs; Barbour, Samantha

Subject: update on Life Care

Hi Patty –

Thanks for talking today about Life Care. As I mentioned we need to demonstrate they have exhausted their local options before elevating to state or federal level. It was helpful to better understand their staffing and resource needs based on your site visit today.

Staffing:

Includes a mix of LPN, RN and CNA. They are fine on CNA but need either medical surge LPN or RN. Evening and Night shift is the greatest need. They are also down housekeeping but if we can get laundry services (pick up and drop off) that would be helpful)

We have explored working with NWHRN to assess staff and there is a concern about those staff going into other HC facility. This is also true for MRC that they work in these facilities but we are going to ask again.

SHIFT	RN	CNA
Day (7A -3:30P)	5	10
Evening (3P-11P)	5	10
Night (11P-7P)	3 (currently only have 1-2)	6

Services:

Laundry services

PPE:

Surgical masks

Blue and yellow gowns

Eye protection

Purell for dispensers

Based on this we will look at vendor contracts for laundry services (LOGS/Stacy), send out a request to our Public Health Reserve Corps for nurses (LOGS/Emily), and ask CDC via Brittany Sunshine to elevate their PPE needs to the distributor (AC/Resham).

REQUEST: Can you please ask Nancy what staffing /temp agencies they requested staff from and how many staff they are getting from within their own system/organization? Also quantities on PPE would be good to know.

Thanks and let me know if I missed something.

Carina

Carina Elsenboss, MS

Preparedness Director

Public Health – Seattle & King County

401 5th Avenue, #1300 :: Seattle, WA 98104

D: 206.263.8722 C: 206.255.7108 F: 206-296.0629

E: carina.elsenboss@kingcounty.gov

From: Cockrill, Jennifer (OS/ASPR/EMMO)
Sent: Tuesday, March 3, 2020 6:12 AM PST
To: Elsenboss, Carina
CC: Smart, John (OS/ASPR/EMMO)
Subject: RE: Fit testing

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Apologies for the follow up question -- Is your fit-testing capability qualitative or quantitative?

From: Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>
Sent: Tuesday, March 3, 2020 6:09 AM
To: Cockrill, Jennifer (OS/ASPR/EMMO) <Jennifer.Cockrill@hhs.gov>
Cc: Smart, John (OS/ASPR/EMMO) <John.Smart@hhs.gov>
Subject: Re: Fit testing

Yes. Will we need to provide PPE to those who have been previously fit tested?

Facility staff is using surgical masks, eye protection, gowns and gloves and not doing aerosolized procedures.

Carina Elsenboss
Public Health - Seattle & King County
o: 206.263.8722 | c: 206.255.7108 | carina.elsenboss@kingcounty.gov

From: Cockrill, Jennifer (OS/ASPR/EMMO) <Jennifer.Cockrill@hhs.gov>
Sent: Tuesday, March 3, 2020 5:15:24 AM
To: Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>
Cc: Smart, John (OS/ASPR/EMMO) <John.Smart@hhs.gov>
Subject: Fit testing

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Carina,

All HHS responders will be required to be for tested before supporting the response. Some may arrive in WA without having been fit tested.

Is it possible to utilize fit testing services at PHSKC before employing responders in the field? Is your fit testing capability qualitative or quantitative?

If not, is there another service close to PHSKC (WADOH Shoreline?) that can fit test federal personnel?

Best,
Jen

From: Pennylegion, Michelle
Sent: Monday, March 2, 2020 4:02 PM PST
To: Elsenboss, Carina
Subject: FW: Federal Resource Request for staffing

Will this work?

From: Pennylegion, Michelle
Sent: Monday, March 2, 2020 3:59 PM
To: Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>
Subject: FW: Federal Resource Request for staffing

I apologize. I thought you were on this email.

From: Butner, Nancy <Nancy_Butner@lcca.com>
Sent: Monday, March 2, 2020 1:45 PM
To: Pennylegion, Michelle <Michelle.Pennylegion@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>
Subject: RE: Federal Resource Request for staffing

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Penny,

This is Life Care Center of Kirkland's formal request for federal assistance with staffing and supplies. I understand that we can not bill Medicare for the services provided by the staff sent by the Federal Government. However, in consideration of all the care provided to the residents by facility staff and that the patient's care is far greater than the work of one staff member, I would ask this be reconsidered. Patient care is a priority so we will agree to what ever it takes to receive federal assistance.

Staffing Needs:

Simply stated, we are desperate for Licensed Nurses and Nursing Assistants. We will accept help for any shift and then make the necessary adjustments to the existing staff schedules.

Our staffing needs include the following:

1. Licensed Nurses on Evening and Night shift.
 - a. Day 6:00 am to 2:30 pm
 - b. Eve 2:00 pm to 10:30 pm
 - c. Noc 10:00 pm to 6:30 am
2. Nursing Assistants on Day, Evening and Night Shift
 - a. Day 6:00 am to 2:00 pm
 - b. Eve 2:00 pm to 10:00 pm
 - c. Noc 10:00 pm to 6:00 am

Efforts made to obtain assistance with staffing:

- The following staffing agencies were contacted on 2/29/20, 3/1/20 and 3/2/20. Each agency has said they *do not* have staff willing to work at Life Care Center of Kirkland. These agencies were contacted via telephone.
 - Aya Healthcare
 - AMM Healthcare
 - Cross Country Healthcare
 - Maxim Healthcare
 - Career Staff Unlimited
 - Interim Healthcare
 - Focus One Solutions
- On 2/29/20 and each day since, we have contacted all Life Care Center facilities in Washington state. We have requested licensed Nurses, Nursing Assistance and housekeeping staff. The following facilities were contacted:
 - Life Care Center of Skagit Valley
 - Life Car Center of Mount Vernon
 - Marysville Care Center
 - Life Care Center of South Hill
 - Life Care Center of Puyallup
 - Garden Terrace of Federal Way
 - Life Care Center of Federal Way
 - Hallmark Care Center
 - Life Care Center of Port Townsend
 - Life Care Center of Port Orchard
 - Cottesmore Care Center

Supply Needs:

The following supplies are needed:

1. Masks - Surgical
2. Masks with Eye Shield
3. Alcohol Gel for dispenser
4. Disposable Gowns
5. Disinfecting Wipes

Efforts made to obtain Supplies

- On 2/29/20, we began contacting other Life Care Facilities to obtain the supplies listed above. This included the above listed 12 facilities in Washington state. They were contacted via phone calls to the Executive Director. We received approximately 15 boxes of masks, 6 boxes of gowns and 12 bottles of alcohol gel.
- Our Corporate Director of Purchasing also contacted vendor for Medical supplies – McKesson. They have been able to send some supplies, but this has not met our needs to properly clean the facility nor protect our staff while caring for our patients.
- He has also contacted the following medical suppliers listed below. All vendors have their supply allocations committed to their contracted facilities and do not have supplies to send us.
 - Briggs

- Medline
- Progressive Medical
- Home Depot Pro

I am available for questions or clarifications to this request. I can be reached via email or phone at 425-241-8582.

Thank You for your assistance

Nancy Butner, MBA
Northwest Divisional Vice President
 Life Care Centers of America

Cell: 425-241-8582

Strategic	Competition	Significance	Achiever	Ideation
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From: Pennylegion, Michelle <Michelle.Pennylegion@kingcounty.gov>
Sent: Monday, March 2, 2020 11:44 AM
To: Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Butner, Nancy <Nancy_Butner@lcca.com>
Subject: Federal Resource Request for staffing

CAUTION: This email did not originate from a Life Care email account, even if it appears to have been sent from a Life Care associate. Do not click links or open attachments unless you are expecting this email and know the content is safe. If in doubt, report using the Phish Alert toolbar button or forward the email to securityreview@lcca.com for analysis.

Nancy,

Public Health is planning to submit a request for federal assistance to help support your staffing needs.

Please confirm via this email that you and your facility understand and consent to receiving these federal resources. To receive these resources, you will also need to agree you will not bill on any patients who receive federal support.

Thank you very.

Michelle Pennylegion, MPH

Community Health Services Division, Public Health Seattle & King County
 401 Fifth Avenue, Suite 1000
 Seattle, WA 98104
 206-263-8306 (Office)
 206-423-2469 (Mobile)

From: Duchin, Jeff
Sent: Saturday, February 29, 2020 11:25 AM PST
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Subject: Re: travel tonight

My cell 206-391-2379
Meagan cell: 206-423-3077
Call when you're ready to chat. Thanks much!

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov
From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Sent: Saturday, February 29, 2020 11:23:34 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Subject: Automatic reply: travel tonight

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I am currently deployed to the COVID-19 Response. For DVD business please contact April Allman.

From: CDC IMS 2019 NCOV Healthcare Infection Control
Sent: Monday, February 24, 2020 2:58 PM PST
To: Duchin, Jeff
CC: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID); Pillai, Satish K. (CDC/DDID/NCEZID/DPEI); Layton, Marci (CDC health.nyc.gov); Lindquist, Scott SL (CDC doh.wa.gov); Bell, Michael MD (CDC/DDID/NCEZID/DHQP); Fagan, Ryan (CDC/DDID/NCEZID/DHQP); Perz, Joseph (CDC/DDID/NCEZID/DHQP); Patel, Anita (CDC/DDID/NCIRD/OD); CDC IMS 2019 NCOV Healthcare Infection Control
Subject: Re: follow-up to yesterday's SCTF call

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Hi Jeff,

This is our guidance right now and is based on where we are with things in the US right now. As you know, we really don't have a very precise sense about how long there is a risk in the air from a COVID-19 patient. The language below is based on a desire to be very conservative. If outpatient clinics knew their air exchanges they could use Appendix B in the Env Infection Control guidelines (<https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines-P.pdf>). If they don't know the air exchanges, the a default of 2 hours is a rough cutoff based on measles, etc. Again, this would be a conservative estimate, but as we know more about how long there is a risk from suspended droplets, etc. then hopefully these recs can be adjusted.

Sincerely,
COVID-19 Healthcare Infection Control Team

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Saturday, February 22, 2020 2:58 PM
To: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID) <tmu0@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
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Subject: Re: follow-up to yesterday's SCTF call

Ok, thanks, Tim. I just noticed this guidance as well on the IC page:

HCP entering the room soon after a patient vacates the room should use respiratory protection. (See personal protective equipment section below) Standard practice for pathogens spread by the airborne route (e.g., measles, tuberculosis) is to restrict unprotected individuals, including HCP, from entering a vacated room until sufficient time has elapsed for enough air changes to remove potentially infectious particles (more information on [clearance rates under differing ventilation conditions](#) is available). We do not yet know how long COVID-19 remains infectious in the air. In the interim, it is reasonable to apply a similar time period before entering the room without respiratory protection as used for pathogens spread by the airborne route (e.g.,

measles, tuberculosis). In addition, the room should undergo appropriate cleaning and surface disinfection before it is returned to routine use.

I had not noticed that previously. Can someone provide a bit of context on what this would mean for most HCF? Seems to me we are looking at 35-70 minutes minimum for typical regular exam room and AIR if no aerosol-generating event. What are the implications for outpatient facilities? It seems this may significantly restrict the ability to care for surge in patients - I'd appreciate your thoughts.

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Subject: RE: follow-up to yesterday's SCTF call

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I defer to IPC experts in DHQP.
Tim

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Sent: Saturday, February 22, 2020 12:05 AM
To: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID) <tmu0@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
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Subject: Re: follow-up to yesterday's SCTF call

Thanks, Tim. Do you think there will be guidance for HCW at some point re: who should not care for COVID-19 cases?

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Sent: Friday, February 21, 2020 9:03 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <m Layton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
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Subject: RE: follow-up to yesterday's SCTF call

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Not sure there is enough information to inform guidance to date on the breath of high-risk groups, but I would be concerned about pregnant women and immunocompromised HCWers caring for COVID-19 patients. Possibly older adults, but not sure at what cutoff – 60 years? How to define “immunocompromised”? Cardiovascular disease (not sure about isolated HTN), chronic lung disease, diabetes are also signals in the China CDC report (attached).
Tim

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Friday, February 21, 2020 8:38 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <m Layton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
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Subject: RE: follow-up to yesterday's SCTF call

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I've added Tim to see if he has additional thoughts on this.

Thanks and have a nice weekend!

Satish

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Sent: Friday, February 21, 2020 1:03 PM
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Hi Jeff – thank you for your understanding, and everything you are doing. I recognize how incredibly challenging this is. Don't want to speak on behalf of CDC leadership, or outside my task force lens, but there is a community mitigation task force that is now stood up to address community level issues that may arise with sustained human-to-human transmission (and which will go even beyond the issues of IPC practices). I think many of the documents currently on the web (whether the optimizing N95s supply; business COOP guidance; etc) are written with an eye to this mitigation phase, but having a dedicated task force will continue to ensure significant attention will be paid to this. Basically, what can you do now to prepare/mitigate risk to workers, patients, businesses etc when there is community transmission. To the particular issue below, clearly it is one that we will continue to evaluate/adjust as the outbreak evolves, and hopefully we can make informed decisions as we learn more and more data from the management of the cases here in the US. Particularly with Washington on the leading edge of managing cases, I'm guessing your lessons/experiences are going to help shape things. As I have more specific information/updates, will make sure to keep you all informed.

Best,

Satish

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Thursday, February 20, 2020 2:07 PM

To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov)

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Is there another strategy for once community transmission is occurring?

Appreciate all the amazing work you and the CDC team are doing.

jeff

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Sent: Thursday, February 20, 2020 10:52 AM
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Hi Marci, Jeff –

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Thank you,
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Sent: Friday, February 21, 2020 5:37 PM PST
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Subject: Re: follow-up to yesterday's SCTF call

Thanks, Tim. Do you think there will be guidance for HCW at some point re: who should not care for COVID-19 cases?

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
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Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID) <tmu0@cdc.gov>
Sent: Friday, February 21, 2020 9:03 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Subject: RE: follow-up to yesterday's SCTF call

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Not sure there is enough information to inform guidance to date on the breath of high-risk groups, but I would be concerned about pregnant women and immunocompromised HCWers caring for COVID-19 patients. Possibly older adults, but not sure at what cutoff – 60 years? How to define “immunocompromised”? Cardiovascular disease (not sure about isolated HTN), chronic lung disease, diabetes are also signals in the China CDC report (attached).
Tim

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Friday, February 21, 2020 8:38 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <m Layton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Uyeki, Timothy M. (CDC/DDID/NCIRD/ID) <tmu0@cdc.gov>
Subject: RE: follow-up to yesterday's SCTF call

Hi Jeff –

At this point, I don't believe there is sufficient granularity on the potential risk factors, besides from older age (and I've seen diabetes as well – though the challenge I have with this is not knowing level of control; if there were accompanying HbA1C% correlation, that would be more meaningful to me at least). As you probably know, Tim is the one most versed here on the full breadth of the clinical observations seen domestically and internationally, and whether other countries have identified any pre-disposing conditions that might require that individual from avoiding provision of clinical care. The separation of household contacts for a HCW is a nuance to the current home isolation guidance, I would think – we don't restrict the activities of the household members of an individual that may be under home isolation, though provide recommendations to keep people living in shared quarters safe; by extrapolation I'm thinking the same could apply for a high risk contact. I'll discuss with the team whether either of these types of topics are being considered in our ongoing FAQ updates.

I've added Tim to see if he has additional thoughts on this.

Thanks and have a nice weekend!
Satish

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Friday, February 21, 2020 1:03 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <m Layton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Subject: Re: follow-up to yesterday's SCTF call

Thanks, Satish. One question I've had is related to guidance around any restriction for HCW caring for COVID-19 patients. For example, would it be appropriate for a HCW with moderate immunocompromise to work with a COVID-19 patient? Are there any other high risk categories (e.g. pregnancy), that would be contra-indications to being a caregiver for a COVID-19 patient? Do we need to consider separation of HCWs from any very high risk household contacts if they are under monitoring? It would be very helpful to have this type of guidance ASAP to help HC systems in their planning.

Jeff

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Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
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From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Thursday, February 20, 2020 5:28 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Subject: RE: follow-up to yesterday's SCTF call

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Hi Jeff – thank you for your understanding, and everything you are doing. I recognize how incredibly challenging this is. Don't want to speak on behalf of CDC leadership, or outside my task force lens, but there is a community mitigation task force that is now stood up to address community level issues that may arise with sustained human-to-human transmission (and which will go even beyond the issues of IPC practices). I think many of the documents currently on the web (whether the optimizing N95s supply; business COOP guidance; etc) are written with an eye to this mitigation phase, but having a dedicated task force will continue to ensure significant attention will be paid to this. Basically, what can you do now to prepare/mitigate risk to workers, patients, businesses etc when there is community transmission. To the particular issue below, clearly it is one that we will continue to evaluate/adjust as the outbreak evolves, and hopefully we can make informed decisions as we learn more and more data from the management of the cases here in the US. Particularly with Washington on the leading edge of managing cases, I'm guessing your lessons/experiences are going to help shape things. As I have more specific information/updates, will make sure to keep you all informed.

Best,

Satish

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Thursday, February 20, 2020 2:07 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Subject: RE: follow-up to yesterday's SCTF call

Thanks, Satish, I understand the scientific rationale for the guidance and it is appropriate in that sense. Given the increasing chatter about potential asymptomatic transmission and high viral load in nose/throat (and now stool) and transmission from cases with mild infection (NEJM yesterday), this is extremely challenging and probably not possible for many outpatient and specialty care providers, even with the currently limited number of people who are being considered at risk.

Is there another strategy for once community transmission is occurring?

Appreciate all the amazing work you and the CDC team are doing.

jeff

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From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Thursday, February 20, 2020 10:52 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Subject: follow-up to yesterday's SCTF call

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Hi Marci, Jeff –

Very much appreciated hearing your concerns about our current guidance for close contacts who are being evaluated for non-infectious complaints. We recognize this approach poses challenges. However, since we know cases can present with very mild symptoms, we feel an aggressive approach is important to identify cases early and prevent potential amplification and spread in healthcare facilities. We are continuing to evaluate and modify our guidance as we learn more about COVID-19 and as the situation in the United States evolves. Your continued feedback will be important to inform those modifications.

Thank you,
Satish

From: Bresee, Joseph (CDC/DDID/NCIRD/ID)
Sent: Tuesday, February 25, 2020 3:38 AM PST
To: Park, Sarah Y., MD; Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Arwady, Allison AA (CDC cityofchicago.org); Balter, Sharon (CDC ph.lacounty.gov); Brian Hiatt; Christine Mahle; Christopher Shields; Conover, Craig (CDC illinois.gov); Debra Wadford; Duchin, Jeff; Desmond, Edward; Gail Cooksey; Ghinai, Isaac; Godfred Masinde; Green, Nicole (CDC ph.lacounty.gov); Hector Rivas; Jain, Seema (CDC cdph.ca.gov); Jessica Sell; Justin DeWitt; Kauerauf, Judy (CDC illinois.gov); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Layden, Jennifer (CDC illinois.gov); Layton, Marci (CDC health.nyc.gov); Leslie Chapman; Lindquist, Scott SL (CDC doh.wa.gov); Marelle Fricchione; Meredith Haddix; Molly Lamb; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov); Rose, Laura E. (CDC/DDPHSS/OLSS/OLS); Black, Stephanie SB (CDC cityofchicago.org); Thomas-Smith, Evonda; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO); Weiss, Don (CDC health.nyc.gov); Zahn, Matthew
CC: Armstrong, Gregory (CDC/DDID/NCEZID/OD); Langley, Gayle E. (CDC/DDID/NCIRD/DVD); Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM)
Subject: RE: updates on sentinel surveillance activities

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Thanks, Sarah. As you say, the role of children in transmission is still unclear. The GOARN China team reports, as we have heard and seen elsewhere, that few children are affected, but early and continued school closures in the early countries might mean that they have been so far spared – and when school opens we will see more cases and transmission assoc with kids. Suspect that school closures might be a component of early response if few data are available or uncertainty remains re kids' roles in transmission, and that jurisdictions should plan for them. But this is a good topic for the group's input. Joe

From: Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>
Sent: Tuesday, February 25, 2020 4:25 AM
To: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Arwady, Allison AA (CDC cityofchicago.org) <allison.arwady@cityofchicago.org>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; Brian Hiatt <brian.hiatt@doh.wa.gov>; Christine Mahle <cmahle@health.nyc.gov>; Christopher Shields <christopher.shields@cityofchicago.org>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Debra Wadford <debra.wadford@cdph.ca.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Desmond, Edward <edward.desmond@doh.hawaii.gov>; Gail Cooksey <Gail.Cooksey@cdph.ca.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Godfred Masinde <godfred.masinde@sfdph.org>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Jessica Sell <jsell@health.nyc.gov>; Justin DeWitt <Justin.Dewitt@Illinois.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Kuhnert-Tallman, Wendi (CDC/DDID/OD) <wdk1@cdc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Leslie Chapman <Leslie.Chapman@Illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Marelle Fricchione <Marielle.Fricchione@cityofchicago.org>; Meredith Haddix <MHaddix@ph.lacounty.gov>; Molly Lamb <Molly.Lamb@Illinois.gov>; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov) <jrakeman@health.nyc.gov>; Rose, Laura E. (CDC/DDPHSS/OLSS/OLS) <zey9@cdc.gov>; Black, Stephanie SB (CDC cityofchicago.org) <stephanie.black@cityofchicago.org>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO) <hgq2@cdc.gov>; Weiss, Don (CDC health.nyc.gov) <dweiss@health.nyc.gov>; Zahn, Matthew <MZahn@ochca.com>

Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM) <zqg7@cdc.gov>

Subject: RE: updates on sentinel surveillance activities

Added just a couple comments to distinguish from my previous comments you kept in the document.

Regarding social distancing measures, the challenge may be getting people to adhere to them if they're difficult to maintain. Distance learning sounds ideal, but unless work places can all accommodate a parent working at home to watch their child, that may not work. Then, there's the question of what exactly is the role of children in transmission. If they're tending to be asymptomatic/mild and have little or no role, then great. If they're asymptomatic/mild but have even some role in transmission, then that's going to be a huge challenge.

Sarah Y. Park, MD, FAAP
State Epidemiologist
Chief, Disease Outbreak Control Division
Hawaii Department of Health

An ounce of prevention is worth a pound of cure. - Benjamin Franklin

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<http://health.hawaii.gov/docd/>



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From: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>

Sent: Monday, February 24, 2020 3:42 PM

To: Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Arwady, Allison AA (CDC cityofchicago.org) <allison.arwady@cityofchicago.org>; Balter, Sharon (CDC ph.lacounty.gov) <sbalter@ph.lacounty.gov>; Brian Hiatt <brian.hiatt@doh.wa.gov>; Christine Mahle <cmahle@health.nyc.gov>; Christopher Shields <christopher.shields@cityofchicago.org>; Conover, Craig (CDC illinois.gov) <Craig.Conover@Illinois.gov>; Debra Wadford <debra.wadford@cdph.ca.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Desmond, Edward <edward.desmond@doh.hawaii.gov>; Gail Cooksey <Gail.Cooksey@cdph.ca.gov>; Ghinai, Isaac <Isaac.Ghinai@Illinois.gov>; Godfred Masinde <godfred.masinde@sfdph.org>; Green, Nicole (CDC ph.lacounty.gov) <nicgreen@ph.lacounty.gov>; Hector Rivas <hrivas@ph.lacounty.gov>; Jain, Seema (CDC cdph.ca.gov) <Seema.Jain@cdph.ca.gov>; Jessica Sell <jsell@health.nyc.gov>; Justin DeWitt <Justin.Dewitt@Illinois.gov>; Kauerauf, Judy (CDC illinois.gov) <judy.kauerauf@illinois.gov>; Kuhnert-Tallman, Wendi (CDC/DDID/OD) <wdk1@cdc.gov>; Layden, Jennifer (CDC illinois.gov) <jennifer.layden@illinois.gov>; Layton, Marci (CDC health.nyc.gov) <m Layton@health.nyc.gov>; Leslie Chapman <Leslie.Chapman@Illinois.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Marelle Fricchione <Marielle.Fricchione@cityofchicago.org>; Meredith Haddix <MHaddix@ph.lacounty.gov>; Molly Lamb <Molly.Lamb@Illinois.gov>; PGounder@ph.lacounty.gov; Rakeman, Jennifer JR (CDC health.nyc.gov) <irakeman@health.nyc.gov>; Rose, Laura E. (CDC/DDPHSS/OLSS/OLS) <zey9@cdc.gov>; Park, Sarah Y., MD <sarah.park@doh.hawaii.gov>; Black, Stephanie SB (CDC cityofchicago.org) <stephanie.black@cityofchicago.org>; Thomas-Smith, Evonda <Evonda.Thomas-Smith@Illinois.gov>; Vagi, Sara J. (CDC/DDPHSIS/CPR/DEO) <hgg2@cdc.gov>; Weiss, Don (CDC health.nyc.gov)

<dweiss@health.nyc.gov>; Zahn, Matthew <MZahn@ochca.com>

Cc: Bresee, Joseph (CDC/DDID/NCIRD/ID) <jsb6@cdc.gov>; Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Langley, Gayle E. (CDC/DDID/NCIRD/DVD) <fez7@cdc.gov>; Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM) <zqg7@cdc.gov>

Subject: [EXTERNAL] RE: updates on sentinel surveillance activities

All,

Here is the revised version of the document re actions to take now and when a first case is identified in the community for your review. Has more info that represents upcoming CDC thoughts on Comm Mitigation and Health care mitigation. Can make into a table or figure to make more approachable but wanted to get agreeable content first. See what you think and if this is useful for your own planning

Re comms – have submitted edits on all comms materials tonight back to CDC Comms folks. Will let them incorporate that will share with you all tomorrow AM

I think that we have all agreed on a few principals –

- we all have a joint Comms plan, with local jurisdictions being in the lead and CDC supporting you all (that you would announce anything first)

- we have a shared understanding of what actions would be taken if positives are found – the attached doc is for that purpose – but we acknowledge that we will convene when positives occur and think through together as things will change

- CDC will support investigation of early cases as requested by you all.

Finally, I would ask that you all think through funding required for surveillance and response for this project to be ready if and when asked for a proposal by CDC

Finally (really) – Greg Armstrong will be joining the response in my place starting tomorrow. I will linger a bit to support this project but Gayle will continue as CDC POC, and Greg and Stephanie Bialek (EPI-Task Force Lead) will be more present in the discussions going forward. I will fade out for a while but back soon. If you all can include Greg on emails to me, that would be great

Thanks again

Joe

Joseph Bresee, MD
Deputy Incident Manager
CDC 2020 nCoV response

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Friday, February 21, 2020 7:20 PM PST
To: Duchin, Jeff
Subject: Re: follow-up to yesterday's SCTF call

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Hoping for Sunday, in fact. Need to spend some time with my son - he's been incredibly understanding so far. Take care, satish

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From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Friday, February 21, 2020 10:18:17 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Subject: Re: follow-up to yesterday's SCTF call

Thanks much, Satish. I hope you get some R&R as well.

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov
From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Friday, February 21, 2020 5:37:33 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Uyeki, Timothy M. (CDC/DDID/NCIRD/ID) <tmu0@cdc.gov>
Subject: RE: follow-up to yesterday's SCTF call

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Hi Jeff –

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separation of household contacts for a HCW is a nuance to the current home isolation guidance, I would think – we don't restrict the activities of the household members of an individual that may be under home isolation, though provide recommendations to keep people living in shared quarters safe; by extrapolation I'm thinking the same could apply for a high risk contact. I'll discuss with the team whether either of these types of topics are being considered in our ongoing FAQ updates.

I've added Tim to see if he has additional thoughts on this.

Thanks and have a nice weekend!
Satish

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Sent: Friday, February 21, 2020 1:03 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>
Subject: Re: follow-up to yesterday's SCTF call

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Jeff

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Sent: Thursday, February 20, 2020 5:28 PM
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Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>

Subject: RE: follow-up to yesterday's SCTF call

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Hi Jeff – thank you for your understanding, and everything you are doing. I recognize how incredibly challenging this is. Don't want to speak on behalf of CDC leadership, or outside my task force lens, but there is a community mitigation task force that is now stood up to address community level issues that may arise with sustained human-to-human transmission (and which will go even beyond the issues of IPC practices). I think many of the documents currently on the web (whether the optimizing N95s supply; business COOP guidance; etc) are written with an eye to this mitigation phase, but having a dedicated task force will continue to ensure significant attention will be paid to this. Basically, what can you do now to prepare/mitigate risk to workers, patients, businesses etc when there is community transmission. To the particular issue below, clearly it is one that we will continue to evaluate/adjust as the outbreak evolves, and hopefully we can make informed decisions as we learn more and more data from the management of the cases here in the US. Particularly with Washington on the leading edge of managing cases, I'm guessing your lessons/experiences are going to help shape things. As I have more specific information/updates, will make sure to keep you all informed.

Best,

Satish

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Thursday, February 20, 2020 2:07 PM

To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>

Cc: Bell, Michael MD (CDC/DDID/NCEZID/DHQP) <zzb8@cdc.gov>; Fagan, Ryan (CDC/DDID/NCEZID/DHQP) <fev3@cdc.gov>; Perz, Joseph (CDC/DDID/NCEZID/DHQP) <bzp4@cdc.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>

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Is there another strategy for once community transmission is occurring?

Appreciate all the amazing work you and the CDC team are doing.

jeff

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E-mail: jeff.duchin@kingcounty.gov

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Thursday, February 20, 2020 10:52 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
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Hi Marci, Jeff –

Very much appreciated hearing your concerns about our current guidance for close contacts who are being evaluated for non-infectious complaints. We recognize this approach poses challenges. However, since we know cases can present with very mild symptoms, we feel an aggressive approach is important to identify cases early and prevent potential amplification and spread in healthcare facilities. We are continuing to evaluate and modify our guidance as we learn more about COVID-19 and as the situation in the United States evolves. Your continued feedback will be important to inform those modifications.

Thank you,
Satish

From: Uyeki, Timothy M. (CDC/DDID/NCIRD/ID)
Sent: Friday, February 21, 2020 9:03 PM PST
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI); Duchin, Jeff; Layton, Marci (CDC health.nyc.gov); Lindquist, Scott SL (CDC doh.wa.gov)
CC: Bell, Michael MD (CDC/DDID/NCEZID/DHQP); Fagan, Ryan (CDC/DDID/NCEZID/DHQP); Perz, Joseph (CDC/DDID/NCEZID/DHQP); Patel, Anita (CDC/DDID/NCIRD/OD)
Subject: RE: follow-up to yesterday's SCTF call
Attachments: COVID-19 China CDC Weekly as of February 11 2020.pdf

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Not sure there is enough information to inform guidance to date on the breadth of high-risk groups, but I would be concerned about pregnant women and immunocompromised HCWs caring for COVID-19 patients. Possibly older adults, but not sure at what cutoff – 60 years? How to define “immunocompromised”? Cardiovascular disease (not sure about isolated HTN), chronic lung disease, diabetes are also signals in the China CDC report (attached).

Tim

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Friday, February 21, 2020 8:38 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Layton, Marci (CDC health.nyc.gov) <mlayton@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
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Subject: RE: follow-up to yesterday's SCTF call

Hi Jeff –

At this point, I don't believe there is sufficient granularity on the potential risk factors, besides from older age (and I've seen diabetes as well – though the challenge I have with this is not knowing level of control; if there were accompanying HbA1C% correlation, that would be more meaningful to me at least). As you probably know, Tim is the one most versed here on the full breadth of the clinical observations seen domestically and internationally, and whether other countries have identified any pre-disposing conditions that might require that individual from avoiding provision of clinical care. The separation of household contacts for a HCW is a nuance to the current home isolation guidance, I would think – we don't restrict the activities of the household members of an individual that may be under home isolation, though provide recommendations to keep people living in shared quarters safe; by extrapolation I'm thinking the same could apply for a high risk contact. I'll discuss with the team whether either of these types of topics are being considered in our ongoing FAQ updates.

I've added Tim to see if he has additional thoughts on this.

Thanks and have a nice weekend!
Satish

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Friday, February 21, 2020 1:03 PM

To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Layton, Marci (CDC health.nyc.gov) <mLAYTON@health.nyc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>

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Subject: Re: follow-up to yesterday's SCTF call

Thanks, Satish. One question I've had is related to guidance around any restriction for HCW caring for COVID-19 patients. For example, would it be appropriate for a HCW with moderate immunocompromise to work with a COVID-19 patient? Are there any other high risk categories (e.g. pregnancy), that would be contra-indications to being a caregiver for a COVID-19 patient? Do we need to consider separation of HCWs from any very high risk household contacts if they are under monitoring? It would be very helpful to have this type of guidance ASAP to help HC systems in their planning.

Jeff

Jeffrey S. Duchin, MD (he/him)

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Vital Surveillances

The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19) — China, 2020

The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team

Abstract

Background: An outbreak of 2019 novel coronavirus diseases (COVID-19) in Wuhan, Hubei Province, China has spread quickly nationwide. Here, we report results of a descriptive, exploratory analysis of all cases diagnosed as of February 11, 2020.

Methods: All COVID-19 cases reported through February 11, 2020 were extracted from China's Infectious Disease Information System. Analyses included the following: 1) summary of patient characteristics; 2) examination of age distributions and sex ratios; 3) calculation of case fatality and mortality rates; 4) geo-temporal analysis of viral spread; 5) epidemiological curve construction; and 6) subgroup analysis.

Results: A total of 72,314 patient records—44,672 (61.8%) confirmed cases, 16,186 (22.4%) suspected cases, 10,567 (14.6%) clinically diagnosed cases (Hubei Province only), and 889 asymptomatic cases (1.2%)—contributed data for the analysis. Among confirmed cases, most were aged 30–79 years (86.6%), diagnosed in Hubei (74.7%), and considered mild (80.9%). A total of 1,023 deaths occurred among confirmed cases for an overall case fatality rate of 2.3%. The COVID-19 spread outward from Hubei Province sometime after December 2019, and by February 11, 2020, 1,386 counties across all 31 provinces were affected. The epidemic curve of onset of symptoms peaked around January 23–26, then began to decline leading up to February 11. A total of 1,716 health workers have become infected and 5 have died (0.3%).

Conclusions: COVID-19 epidemic has spread very quickly taking only 30 days to expand from Hubei to the rest of Mainland China. With many people returning from a long holiday, China needs to prepare for the possible rebound of the epidemic.

Introduction

A cluster of pneumonia cases of unknown origin in Wuhan, China caused concern among health officials

in late December 2019. On December 31, an alert was issued by the Wuhan Municipal Health Commission, a rapid response team was sent to Wuhan by the Chinese Center for Disease Control and Prevention (China CDC), and a notification was made to the World Health Organization (WHO) (1–4). Likely potential causes including influenza, avian influenza, adenovirus, severe acute respiratory syndrome coronavirus (SARS-CoV), and Middle East respiratory syndrome coronavirus (MERS-CoV) were ruled out. Epidemiological investigation implicated Wuhan's Huanan Seafood Wholesale Market, which was shut down and disinfected, and active case finding was initiated and vigorously pursued (2,4–5).

On January 7, 2020, the causative pathogen was identified as a novel coronavirus, and genomic characterization and test method development ensued (2–6). Now named 2019-nCoV, the virus is distinct from both SARS-CoV and MERS-CoV, yet closely related (5,7). Early cases suggested that COVID-19 (i.e. the new name for disease caused by the novel coronavirus) may be less severe than SARS and MERS. However, illness onset among rapidly increasing numbers of people and mounting evidence of human-to-human transmission suggests that 2019-nCoV is more contagious than both SARS-CoV and MERS-CoV (3,8–11).

On January 20, China's "National Infectious Diseases Law" was amended to make 2019-novel coronavirus diseases (COVID-19) a Class B notifiable disease and its "Frontier Health and Quarantine Law" was amended to support the COVID-19 outbreak response effort. Then, on January 23, the Chinese Government began to limit movement of people in and out of Wuhan, and two days later, it announced its highest-level commitment and mobilized all sectors to respond to the epidemic and prevent further spread of COVID-19. Characterization of the epidemiological features of COVID-19 is crucial for the development and implementation of effective control strategies. Here, we report the results of a descriptive, exploratory analysis of all cases found through February 11, 2020.

Method

Study Design

This study was a descriptive, exploratory analysis of all cases of COVID-19 diagnosed nationwide in China as of the end of February 11, 2020. As such, it in some respects uses a cross-sectional study design and hence, we have used the STROBE Guidelines (www.equator-network.org) to aid our thorough reporting of this observational study.

A public health emergency was declared, and a formal investigation began on December 31, 2019, supported by city (Wuhan Municipal Health Commission and Wuhan CDC), provincial (Health Commission of Hubei Province and Hubei Provincial CDC), and national (National Health Commission and China CDC) authorities and resources. This study was reviewed by the China CDC Institutional Review Board via a fast-track mechanism. Although individual informed consent was not required for this study, all data were handled as a deidentified set to protect patient privacy and confidentiality.

Data Source

By categorizing COVID-19 as a Class B notifiable disease, Chinese law required all cases to be immediately reported to China's Infectious Disease Information System. Entry of each case into the system was performed by local epidemiologists and public health workers who investigated and collected information on possible exposures. All case records contain national identification numbers, and therefore, all cases have records in the system and no records are duplicated. All data contained in all COVID-19 case records in the Infectious Disease Information System through the end of February 11, 2020 were extracted from the system as a single dataset and were then stripped of all personal identifying information. No sampling was done to achieve a predetermined study size and no eligibility criteria were used—all cases were included.

Variables

Patient characteristics were collected at baseline, meaning the time of diagnosis, epidemiological investigation, and entry into the Infectious Disease Information System. Patients were categorized as health workers for the occupation variable if they had active employment of any kind in a health facility (i.e. this category did not just include physicians and

nurses). Patients were categorized as having a Wuhan-related exposure if they had recently resided in or visited Wuhan or if they had close contact with someone who had. The comorbid conditions variable was determined upon epidemiological investigation by patient self-reported medical history, which was not independently verified using medical records for all cases. The severity of symptoms variable was categorized as mild, severe, or critical. Mild included non-pneumonia and mild pneumonia cases. Severe was characterized by dyspnea, respiratory frequency ≥ 30 /minute, blood oxygen saturation $\leq 93\%$, $\text{PaO}_2/\text{FiO}_2$ ratio <300 , and/or lung infiltrates $>50\%$ within 24–48 hours. Critical cases were those that exhibited respiratory failure, septic shock, and/or multiple organ dysfunction/failure.

As some variables of interest (i.e., Wuhan-related exposure, comorbid condition, and case severity) are not required fields when creating records in the Infectious Disease Information System, some records have missing data for these variables.

For construction of epidemiological curves, date of onset was defined as the date on which patients self-reported the start of either fever or cough during epidemiological investigation. Cases were categorized as confirmed, suspected, clinically diagnosed (Hubei Province only), or asymptomatic. Confirmed cases were diagnosed based on positive viral nucleic acid test results on throat swab samples (some samples were tested retrospectively). Suspected cases were diagnosed clinically based on symptoms and exposures. Clinically diagnosed cases were suspected cases with lung imaging features consistent with coronavirus pneumonia. Asymptomatic cases were diagnosed based on positive viral nucleic acid test results but without any COVID-19 symptoms (e.g., fever, dry cough). The date of positive viral nucleic acid test result is used as onset date for asymptomatic cases

Analysis

For confirmed cases, demographic and clinical characteristics were summarized using descriptive statistics. Age distribution graphs were constructed using patient age at baseline for confirmed cases diagnosed in Wuhan, Hubei Province (including Wuhan), and China (including Hubei Province). Sex ratio (i.e., male:female [M:F] ratio) was also calculated. Case fatality rates were calculated as the total number of deaths (numerator) divided by the total number of cases (denominator), expressed as a percent. Observed time was summarized using person-days (PD) and

mortality was calculated as the number of deaths (numerator) divided by the total observed time (denominator), expressed per 10 PD.

For geo-temporal analysis, the county-level location of each case at time of diagnosis was used to build color-coded maps of China to indicate the numbers of cases in each province on December 31, 2019; January 10, 2020; January 31, 2020; and February 11, 2020. This analysis was performed using ArcGIS Desktop software (version 10.6; Esri; Redlands, California, USA).

The epidemiological curve for all cases was constructed by plotting the number of cases (y-axis) versus self-reported date of symptom onset (x-axis). Date of symptom onset for confirmed, suspected, clinically diagnosed, and asymptomatic cases were stacked to show total cases over time. The epidemiological curve for confirmed cases was also overlaid with the number of cases versus date of diagnosis to show the delay between onset of symptoms and diagnosis of disease.

Two subgroups were also analyzed separately using epidemiological curves: confirmed cases diagnosed outside of Hubei Province (with and without Wuhan-

related exposure) and all cases diagnosed among health workers (confirmed, suspected, clinically diagnosed, and asymptomatic).

Results

Patients

A total of 72,314 unique records were extracted and data from all records were included in the analysis. Thus, all 72,314 individuals diagnosed with COVID-19 as of February 11, 2020, were included in the analysis. Among them, 44,672 cases (61.8%) were confirmed, 16,186 cases (22.4%) were suspected, 10,567 cases (14.6%) were clinically diagnosed, and 889 cases (1.2%) were asymptomatic.

Baseline characteristics of confirmed cases (n=44,672) are presented in Table 1. A majority were aged 30–69 years (77.8%), male (51.4%), farmers or laborers (22.0%), and diagnosed in Hubei Province (74.7%). Most patients reported Wuhan-related exposures (85.8%) and were classified as mild cases (80.9%).

TABLE 1. Patients, deaths, and case fatality rates, as well as observed time and mortality for n=44,672 confirmed COVID-19 cases in Mainland China as of February 11, 2020.

Baseline Characteristics	Confirmed Cases, N (%)	Deaths, N (%)	Case Fatality Rate, %	Observed Time, PD	Mortality, per 10 PD
Overall	44,672	1,023	2.3	661,609	0.015
Age, years					
0–9	416 (0.9)	–	–	4,383	–
10–19	549 (1.2)	1 (0.1)	0.2	6,625	0.002
20–29	3,619 (8.1)	7 (0.7)	0.2	53,953	0.001
30–39	7,600 (17.0)	18 (1.8)	0.2	114,550	0.002
40–49	8,571 (19.2)	38 (3.7)	0.4	128,448	0.003
50–59	10,008 (22.4)	130 (12.7)	1.3	151,059	0.009
60–69	8,583 (19.2)	309 (30.2)	3.6	128,088	0.024
70–79	3,918 (8.8)	312 (30.5)	8.0	55,832	0.056
≥80	1,408 (3.2)	208 (20.3)	14.8	18,671	0.111
Sex					
Male	22,981 (51.4)	653 (63.8)	2.8	342,063	0.019
Female	21,691 (48.6)	370 (36.2)	1.7	319,546	0.012
Occupation					
Service industry	3,449 (7.7)	23 (2.2)	0.7	54,484	0.004
Farmer/laborer	9,811 (22.0)	139 (13.6)	1.4	137,992	0.010
Health worker	1,716 (3.8)	5 (0.5)	0.3	28,069	0.002
Retiree	9,193 (20.6)	472 (46.1)	5.1	137,118	0.034
Other/none	20,503 (45.9)	384 (37.5)	1.9	303,946	0.013

TABLE 1. (continued)

Baseline Characteristics	Confirmed Cases, N (%)	Deaths, N (%)	Case Fatality Rate, %	Observed Time, PD	Mortality, per 10 PD
Province					
Hubei	33,367 (74.7)	979 (95.7)	2.9	496,523	0.020
Other	11,305 (25.3)	44 (4.3)	0.4	165,086	0.003
Wuhan-related exposure*					
Yes	31,974 (85.8)	853 (92.8)	2.7	486,612	0.018
No	5,295 (14.2)	66 (7.2)	1.2	71,201	0.009
Missing	7,403	104	2.8	103,796	0.010
Comorbid condition†					
Hypertension	2,683 (12.8)	161 (39.7)	6.0	42,603	0.038
Diabetes	1,102 (5.3)	80 (19.7)	7.3	17,940	0.045
Cardiovascular disease	873 (4.2)	92 (22.7)	10.5	13,533	0.068
Chronic respiratory disease	511 (2.4)	32 (7.9)	6.3	8,083	0.040
Cancer (any)	107 (0.5)	6 (1.5)	5.6	1,690	0.036
None	15,536 (74.0)	133 (32.8)	0.9	242,948	0.005
Missing	23,690 (53.0)	617 (60.3)	2.6	331,843	0.019
Case severity‡					
Mild	36,160 (80.9)	—	—	—	—
Severe	6,168 (13.8)	—	—	—	—
Critical	2,087 (4.7)	1,023 (100)	49.0	31,456	0.325
Missing	257 (0.6)	—	—	—	—
Period (by date of onset)					
Before Dec 31, 2019	104 (0.2)	15 (1.5)	14.4	5,142	0.029
Jan 1–10, 2020	653 (1.5)	102 (10.0)	15.6	21,687	0.047
Jan 11–20, 2020	5,417 (12.1)	310 (30.3)	5.7	130,972	0.024
Jan 21–31, 2020	26,468 (59.2)	494 (48.3)	1.9	416,009	0.012
After Feb 1, 2020	12,030 (26.9)	102 (10.0)	0.8	87,799	0.012

Abbreviation: PD, person-days.

* The Wuhan-related exposure variable, only includes a total of 37,269 patients and 919 deaths and these values were used to calculate percentages in the confirmed cases and deaths columns.

† The comorbid condition variable, only includes a total of 20,812 patients and 504 deaths and these values were used to calculate percentages in the confirmed cases and deaths columns.

‡ The case severity variable, only includes a total of 44,415 patients and 1,023 deaths and these values were used to calculate percentages in the confirmed cases and deaths columns.

Deaths, Case Fatality Rates, and Mortality

As shown in Table 1, a total of 1,023 deaths have occurred among 44,672 confirmed cases for an overall case fatality rate of 2.3%. Additionally, these 1,023 deaths occurred during 661,609 person-days (PD) of observed time, for a mortality rate of 0.015/10 PD.

The ≥80 age group had the highest case fatality rate of all age groups at 14.8%. Case fatality rate for males was 2.8% and for females was 1.7%. By occupation, patients who reported being retirees had the highest case fatality rate at 5.1%, and patients in Hubei Province had a >7-fold higher case fatality rate at 2.9%

compared to patients in other provinces (0.4%). While patients who reported no comorbid conditions had a case fatality rate of 0.9%, patients with comorbid conditions had much higher rates—10.5% for those with cardiovascular disease, 7.3% for diabetes, 6.3% for chronic respiratory disease, 6.0% for hypertension, and 5.6% for cancer. Case fatality rate was also very high for cases categorized as critical at 49.0%.

Age Distribution and Sex Ratio

The age distribution of cases in Wuhan only, in Hubei Province overall, and in China overall are

presented in Figure 1. The proportion of confirmed cases 30–79 years of age at baseline (i.e., date of diagnosis) was 89.8% for cases in Wuhan city versus 88.6% in Hubei overall (which includes Wuhan) and 86.6% in China overall (which includes Hubei Province and all 30 other provincial-level administrative divisions, or PLADs). The male-to-female ratio was 0.99:1 in Wuhan, 1.04:1 in Hubei, and 1.06:1 in China overall.

Geo-Temporal Findings

On January 19, 2020, National Health Commission of the People's Republic of China confirmed that Guangdong Provincial CDC reported first imported cases of COVID-19, via the Chinese Infectious Diseases Reporting System. This was the first time COVID-19 had been reported outside of Hubei Province via the System. As of January 22, 2020, a total of 301 confirmed COVID-19 cases were reported from 83 counties in 23 provinces. On January 30, 2020, Xizang Autonomous Region (Tibet) reported its first confirmed COVID-19 case coming from Hubei Province. Thus, COVID-19 cases have been reported from all 31 PLADs (Figure 2).

As of February 11, 2020, a total 44,672 confirmed cases were reported from 1,386 counties of 31 provinces, autonomous regions, and municipalities and Hubei Province accounted for 74.7% (Figure 2E). Among them, 0.2% of cases had onset of illness before December 31, 2019 and all were from Hubei Province (Figure 2A); 1.7% had onset of illness during January 1–10, 2020, distributed in 113 counties of 22 PLADs

and Hubei Province accounted for 88.5% (Figure 2B); 13.8% had onset of illness during January 11–20, 2020, distributed in 627 counties of 30 PLADs and Hubei Province accounted for 77.6% (Figure 2C); 73.1% had onset of illness during January 21–31, 2020, distributed in 1310 counties of 31 PLADs and Hubei Province accounted for 74.7% (Figure 2D).

Epidemiological Curve

Figure 3A shows the COVID-19 epidemic curve with number of cases plotted by date of patient onset of symptoms from December 8, 2019 to February 11, 2020. Confirmed, suspected, clinically diagnosed, and asymptomatic cases are stacked to show total daily cases by date of symptom onset. The inset shows that in December 2019 only 0–22 cases/day began to experience symptoms. The peak onset of symptoms for all cases overall occurred on February 1, 2020. Since then, onset of illness has declined.

Figure 3B shows the same COVID-19 epidemic curve for confirmed cases only with number of cases plotted by date of patients' onset of symptoms from December 8, 2019 to February 11, 2020. These data are overlaid with confirmed cases plotted by date of diagnosis to show the lag between the time patients fall ill and the time they actually are diagnosed and are reported to the Infectious Disease Information System. Although for confirmed cases onset of illness peaked around January 23–27, diagnosis of infection by nucleic acid testing of throat swabs did not peak until February 4.

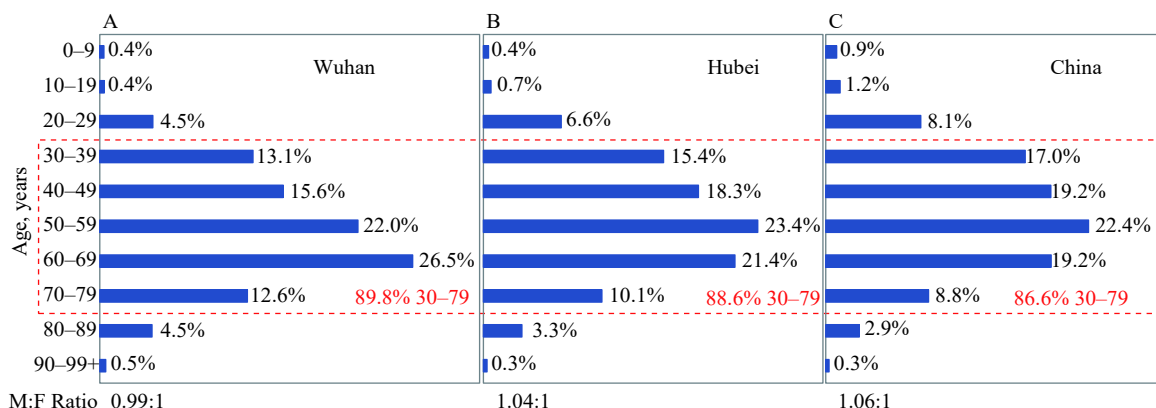


FIGURE 1. Age distribution and sex ratio of all confirmed COVID-19 cases in China through February 11, 2020. (A) patients diagnosed in the city of Wuhan only; (B) patients diagnosed in Hubei Province, which includes Wuhan as its capital city; and (C) patients diagnosed in China overall, including Hubei Province and all 30 other provincial-level administrative divisions (PLADs). Dashed red line highlights the proportion of patients in the 30–79 years age range. Sex ratio (i.e. male-to-female [M:F] ratio) is shown below each graph.

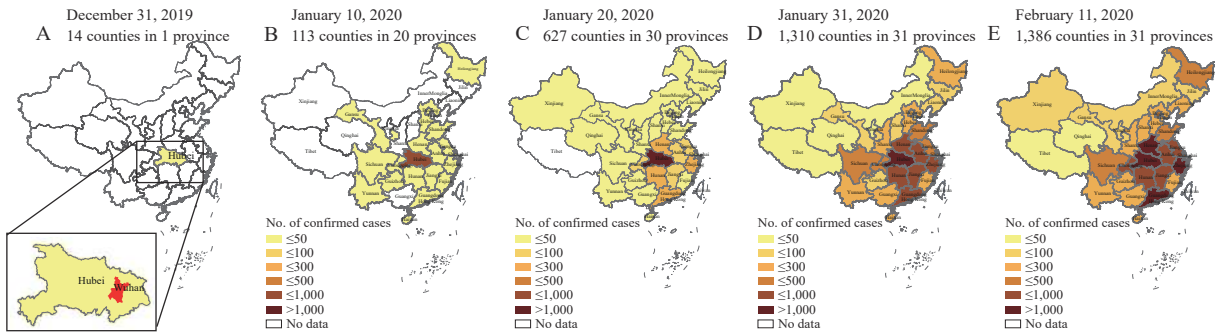


FIGURE 2. Geo-temporal spread of COVID-19 in China through February 11, 2020. (A) a total of 14 county-level administrative areas (hereafter counties) in Hubei Province only (inset) had reported cases as of December 31, 2019; (B) by January 10, 2020, 113 counties in 20 PLADs had reported cases with the highest prevalence still in Hubei Province; (C) nine days later, on January 20, 627 counties in 30 PLADs had reported cases and PLADs neighboring Hubei Province observed increasing prevalence; (D) by the end of January 31, 1310 counties across all 31 PLADs were affected and prevalence in the central, south, and south-central regions had risen dramatically; (E) by the end of February 11, 1,386 counties nationwide were affected and prevalence in the south-central PLADs had risen to the level of Hubei.

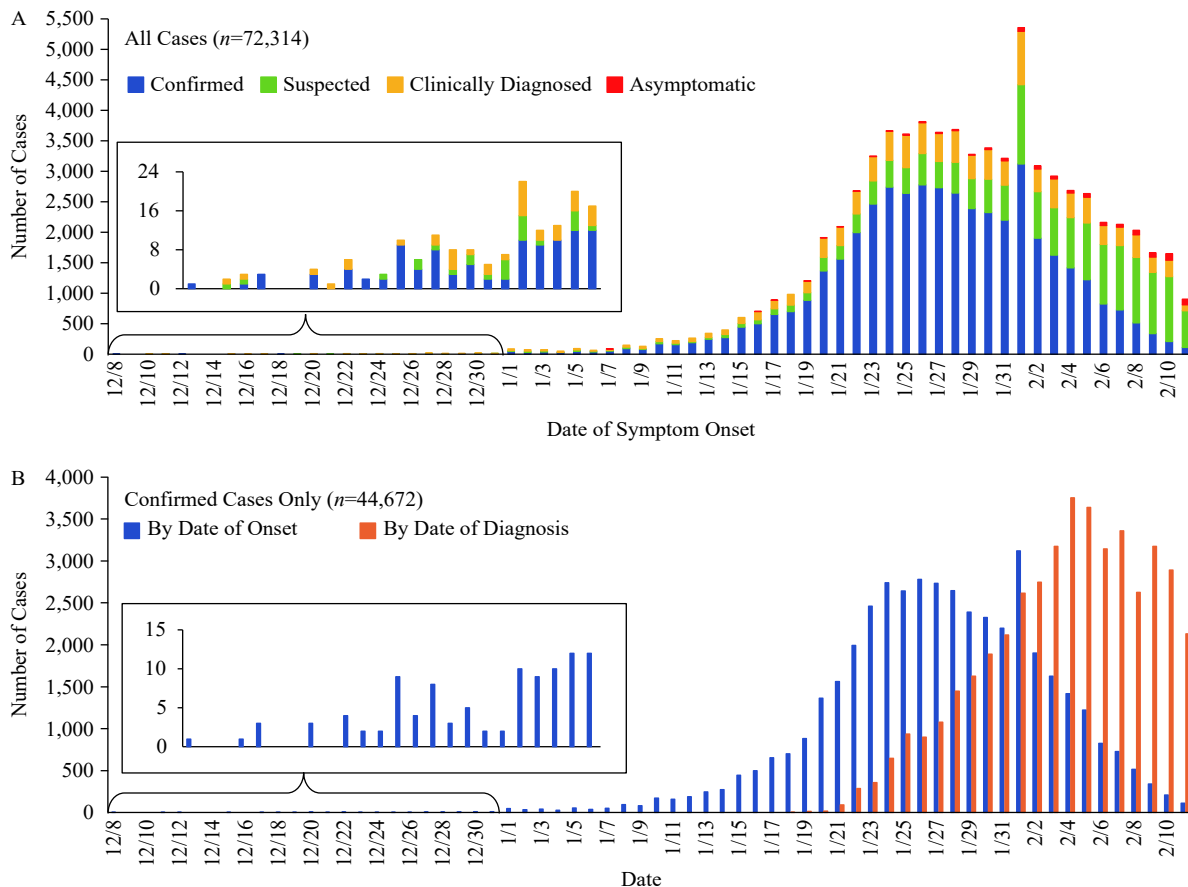


FIGURE 3. Epidemiological curves of COVID-19 in China through February 11, 2020. (A) the epidemiological curve shows the progression of illness in the outbreak over time from December 8, 2019 to February 11, 2020. A total of 72,314 cases are shown and confirmed cases (blue) are compared to suspected cases (green), clinically diagnosed cases (yellow), and asymptomatic cases (red). The inset shows a zoomed-in view of all days in December, when total daily count remained below 24 cases; (B) the epidemiological curve shows the progression of illness in the outbreak over time from December 8, 2019 to February 11, 2020 for confirmed cases only (blue). The number of cases diagnosed each day is also shown for confirmed cases only (orange). The inset shows a zoomed-in view of all days in December, when total daily count remained below 15 cases.

Subgroup Findings

Figure 4 shows the COVID-19 epidemic curve with the number of cases plotted by date of onset of symptoms from December 18, 2019 to February 11, 2020 for two subgroups—confirmed cases found outside of Hubei Province (Figure 4A) and all cases among health workers nationwide (Figure 4B). Peak timing of onset of symptoms among cases outside of Hubei Province occurred on January 27. Most of these cases (85.8%) reported having recently resided in or visited Wuhan or having had close contact with an

infected individual from Wuhan. Peak timing of onset of symptoms among health worker cases occurred on February 1. In the 422 medical facilities serving COVID-19 patients, a total of 3,019 health workers have been infected (1,716 confirmed cases), and 5 have died.

Confirmed cases, case severity, and case fatality rates among health workers in different areas of China and different time periods are presented in Table 2. A total of 1,080 confirmed cases among health workers have been found in Wuhan, accounting for 64.0% of

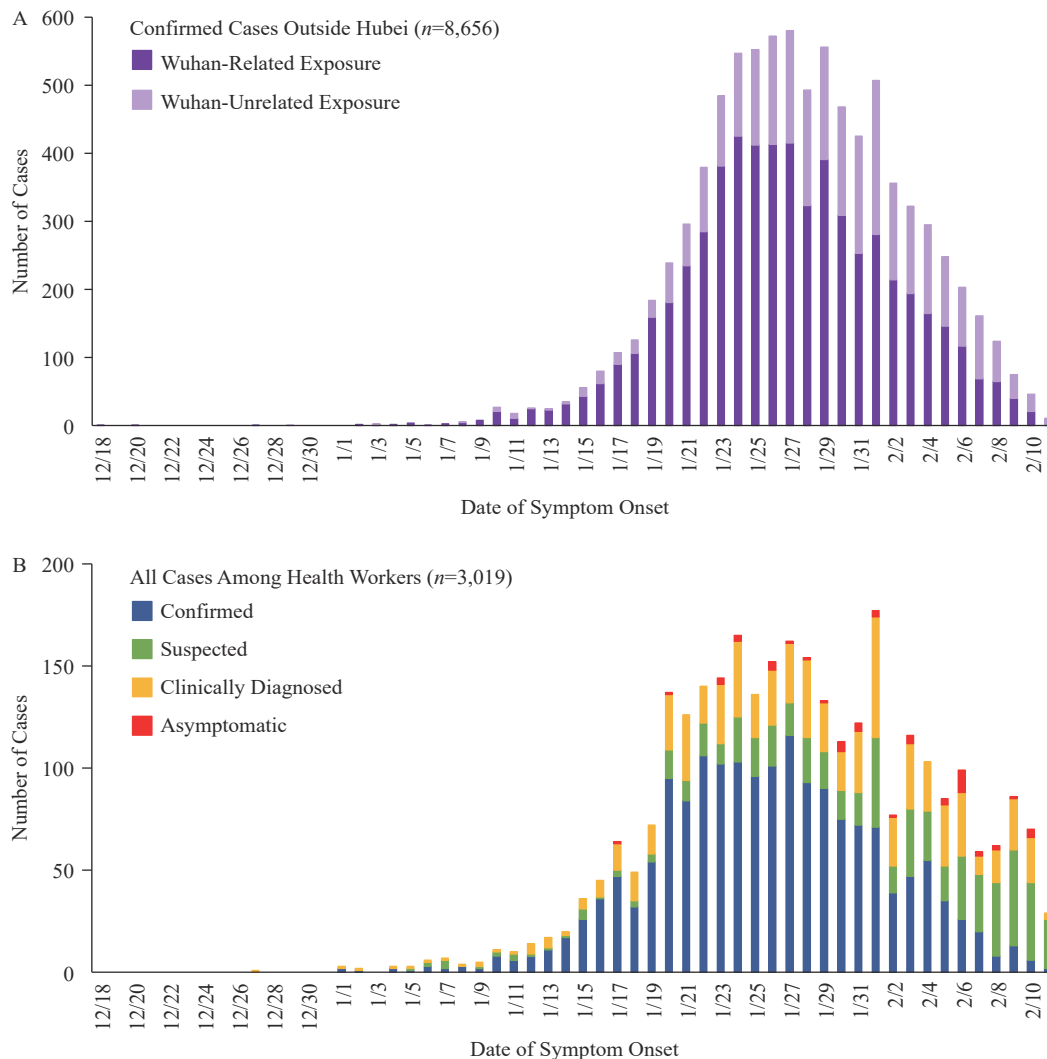


FIGURE 4. Subgroup epidemiological curves of COVID-19 in China through February 11, 2020. (A) subgroup analysis of confirmed cases discovered outside of Hubei Province only. The epidemiological curve shows the progression of illness in the outbreak over time from the onset of symptoms of the first case outside Hubei Province on December 18, 2019 through the end of February 11, 2020. Total confirmed cases outside Hubei Province, and Wuhan-related exposure (dark purple) versus Wuhan-unrelated exposure (light purple), are shown; (B) subgroup analysis of all cases among health workers only. The epidemiological curve shows the progression of illness in the outbreak over time from the onset of symptoms of the first health worker case on December 27, 2019 through the end of February 11, 2020. Total cases among health workers and confirmed (blue) versus suspected (green), clinically diagnosed (yellow), and asymptomatic (red) cases are shown.

national total. An additional 394 health worker cases (23.3%) were found in Hubei Province (excluding Wuhan), and 214 cases (12.7%) were found in the other 30 PLADs. The proportion of health worker cases that were severe or critical was 17.7% in Wuhan, 10.4% in Hubei Province, 7.0% in the remaining 30 PLADs, and 14.6% overall. The proportion of health worker cases in Wuhan classified as severe or critical declined from 38.9% in early January to 12.7% in early February. In China overall, the severe or critical cases among health workers also declined—from 45.0% in early January to 8.7% in early February.

Discussion

A main finding of this characterization and exploratory analysis of the first 72,314 cases of COVID-19 found in China in the 40 days between first recognition of the outbreak of pneumonia with unknown etiology on December 31, 2019 to the end of the study period on February 11, 2020 is that this novel coronavirus is highly contagious. It has spread extremely rapidly from a single city to the entire country within only about 30 days. Moreover, it has achieved such far-reaching effects even in the face of extreme response measures including the complete shutdown and isolation of whole cities, cancellation of Chinese New Year celebrations, prohibition of attendance at school and work, massive mobilization of health and public health personnel as well as military medical units, and rapid construction of entire hospitals.

In light of this rapid spread, it is fortunate that COVID-19 has been mild for 81% of patients and has a very low overall case fatality rate of 2.3%. Among the

1,023 deaths, a majority have been ≥ 60 years of age and/or have had pre-existing, comorbid conditions such as hypertension, cardiovascular disease, and diabetes. Moreover, the case fatality rate is unsurprisingly highest among critical cases at 49%, and no deaths have occurred among those with mild or even severe symptoms (Table 1).

A major contribution of our study is a first description of the COVID-19 epidemic curves. We interpret the overall curve (Figure 3A) as having a mixed outbreak pattern—the data appear to indicate a continuous common source pattern of spread in December and then from early January through February 11, 2020, the data appear to have a propagated source pattern. This mixed outbreak time trend is consistent with the working theory that perhaps several zoonotic events occurred at Huanan Seafood Wholesale Market in Wuhan allowed 2019-nCoV to be transmitted from a still-unknown animal into humans and, due to its high mutation and recombination rates, it adapted to become capable of and then increasingly efficient at human-to-human transmission (3,8).

The early days of the outbreak have been reminiscent of SARS and MERS, and indeed, the discovery that the causative agent was a closely-related, never-before-described coronavirus predicted potential for nosocomial transmission and so-called “super-spreader” events (8). Unfortunately, 2019-nCoV did indeed infect health workers in China via nosocomial transmission. Here we offer a first description of the 1,716 confirmed cases among health workers. Overall, they also display a likely mixed outbreak pattern—perhaps the data are characterized by a point source curve beginning in late December 2019, which

TABLE 2. Confirmed cases, case severity, and case fatality rates among health workers in different areas of China by time period.

Period (by date of onset)	Wuhan			Hubei (outside Wuhan)			China (outside Hubei)			China (overall)		
	Confirmed Cases, N	Severe + Critical, N (%)	Deaths, N (CFR*, %)	Confirmed Cases, N	Severe + Critical, N (%)	Deaths, N (CFR*, %)	Confirmed Cases, N	Severe + Critical, N (%)	Deaths, N (CFR*, %)	Confirmed Cases, N	Severe + Critical, N (%)	Deaths, N (CFR*, %)
Before Dec 31, 2019	0	0	0	0	0	0	0	0	0	0	0	0
Jan 1–10, 2020	18	7 (38.9)	1 (5.6)	1	1 (100)	0	1	1 (100)	0	20	9 (45.0)	1 (5.0)
Jan 11–20, 2020	233	52 (22.3)	1 (0.4)	48	8 (16.7)	0	29	1 (3.4)	0	310	61 (19.7)	1 (0.3)
Jan 21–31, 2020	656	110 (16.8)	0	250	29 (11.6)	2 (0.8)	130	10 (7.7)	0	1,036	149 (14.4)	2 (0.2)
After Feb 1, 2020	173	22 (12.7)	1 (0.6)	95	3 (3.2)	0	54	3 (5.6)	0	322	28 (8.7)	1 (0.3)
Total	1,080	191 (17.7)	3 (0.3)	394	41 (10.4)	2 (0.5)	214	15 (7.0)	0	1,688	247 (14.6)	5 (0.3)

Abbreviation: CFR, case-fatality rate.

* CFR presented here was calculated as number of deaths (numerator) divided by total number of confirmed cases in the row (denominator), expressed as a percent.

was eclipsed by a higher magnitude continuous source curve beginning on January 20, 2020. To date, there is no evidence of a super-spreader event occurring in any of the Chinese health facilities serving COVID-19 patients. However, we do not know whether this is due to the nature of the virus itself or whether these events have been successfully prevented.

It is these authors' sincere hope and intent that this new analysis, on what has become a "public health emergency of international concern," (12) helps to inform health and public health workers preparing for or perhaps already experiencing COVID-19 in their populations. This study provides important insight into several crucial open questions on this epidemic and how to design strategies to effectively control it (3). For instance, the downward trend in the overall epidemic curve suggests that perhaps isolation of whole cities, broadcast of critical information (e.g., promoting hand washing, mask wearing, and care seeking) with high frequency through multiple channels, and mobilization of a multi-sector rapid response teams is helping to curb the epidemic.

China's response is certainly an echo of lessons learned during SARS and is a tribute to the work China and other low- and middle-income countries have been doing, with the much-needed help of international partners, over the past few decades to build infectious disease surveillance systems and public health infrastructure capable of catching outbreaks early and responding swiftly using evidence-based best practices. The 2019-nCoV and other coronaviruses may continue to adapt over time to become more virulent (3), and zoonosis is not going to stop. We must remain vigilant, hone our skills, fund our defenses, and practice our responses, and we must help our neighbors to do the same.

The very large number of cases included in our study was a major strength. Nevertheless, our study did have some important limitations. Firstly, a large proportion of cases included in our analysis (37%) were not confirmed by nucleic acid testing since this process is slow, labor intensive, and requires specialized equipment and skilled technicians. Yet all 72,314 cases were at least diagnosed clinically and investigated by trained epidemiologists. Secondly, some records did have missing data for a few important variables of interest—Wuhan-related exposure, comorbid conditions, and case severity—which limits our ability to draw conclusions from the data.

In conclusion, the present descriptive, exploratory

analysis of the first 72,314 cases of COVID-19 reported through February 11, 2020 offers important new information to the international community on the epidemic in China. In particular, this analysis chronicles the extremely rapid spread of the novel coronavirus despite extreme efforts to contain it. However, important questions remain including identification of the animal reservoir, determination of infectiousness period, identification of transmission routes, and effective treatment and prevention methods including further test development, drug development, and vaccine development (3–4,8–9). As an international community, we must all be responsible partners in surveillance, communication, response, research, and implementation of evidence-based public health and clinical practice. The massive vigorous actions taken by the Chinese government have slowed down the epidemic in China and curbed spread to the rest of the world. Although the epidemic appears to be in decline in the lead up to February 11, 2020, we may yet face more challenges. Huge numbers of people will soon be returning to work and school after the extended New Year holiday. We need to prepare for a possible rebound of the COVID-19 epidemic in the coming weeks and months.

Acknowledgements

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The team thanks all local health workers for their contributions in providing testing, treatment, and care to COVID-19 patients in China.

Disclaimer: The opinions expressed herein reflect the collective views of the co-authors and do not necessarily represent the official position of the National Center for AIDS/STD Control and Prevention of the Chinese Center for Disease Control and Prevention.

In order to share the results of epidemiological characteristics of COVID-19 domestically and internationally, the Chinese Version is jointly published on the *Chinese Journal of Epidemiology*.

Author Group & Contributions: The Novel Coronavirus Pneumonia Emergency Response Epidemiology Team includes Zijian Feng, Qun Li, Yanping Zhang[#], Zunyou Wu, Xiaoping Dong, Huilai Ma, Dapeng Yin, Ke Lyu, Dayan Wang, Lei Zhou, Ruiqi Ren, Chao Li, Yali Wang, Dan Ni, Jing Zhao, Bin Li, Rui Wang, Yan Niu, Xiaohua Wang, Lijie Zhang, Jingfang Sun, Boxi Liu, Zhiqiang Deng, Zhitao Ma, Yang Yang, Hui Liu, Ge Shao, Huan Li, Yuan Liu, Hangjie Zhang, Shuquan Qu, Wei Lou, Dou Shan, Yuehua Hu, Lei Hou, Zhenping Zhao, Jiangmei Liu, Hongyuan Wang, Yuanjie Pang, Yuting Han, Qiuyue Ma, Yujia Ma, Shi Chen, Wei Li, Routong Yang, Zhewu Li, Yingnan Guo, Xinran Liu, Bahabaike Jiangtulu, Zhaoxue Yin, Juan Xu, Shuo Wang, Lin Xiao, Tao Xu, Limin Wang, Xiao Qi, Guoqing Shi, Wenxiao Tu, Xiaomin Shi, Xuemei Su, Zhongjie Li, Huiming Luo, Jiaqi Ma, Jennifer M. McGoogan. All Team members jointly conceptualized the study, analyzed and interpreted the data, wrote and revised the manuscript, and decided to submit for publication.

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From: Kay, Meagan
Sent: Monday, March 2, 2020 11:21 AM PST
To: Hersh, Dorene; Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Duchin, Jeff; Patel, Resham; Montgomery, Patricia A (DOH); Clark, Shauna; Barbour, Samantha
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Subject: Re: from call

Including Sam

From: Hersh, Dorene <Dorene.Hersh@kingcounty.gov>
Sent: Monday, March 2, 2020 11:18:44 AM
To: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: RE: from call

I assume it's someone in Logistics. I'm only setting up the call center. I'm sorry I'm not more help.

From: Kay, Meagan <Meagan.Kay@kingcounty.gov>
Sent: Monday, March 2, 2020 11:16 AM
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: Re: from call

Hi all,

Who should John connect with. Dorene is it you?

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Sent: Monday, March 2, 2020 11:03:17 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: FW: from call

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Who can I touch base with to help get some of these distributed to key facilities e.g. eye protection for Lifecare)?

From: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>
Sent: Monday, March 2, 2020 10:29 AM

To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Subject: Re: from call

Hi John
Here is an update on delivery times:

Gloves: 3/2/2020 – 12 pm EST

N95 respirators/surgical face masks/ face shields: 3/3/2020 – 3:30 pm EST

Gowns – (shipping from McKesson): 3/2/2020 No time provided yet, and
3/3/2020, No time provided yet

Sue

Get [Outlook for iOS](#)

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Sent: Sunday, March 1, 2020 4:42:03 PM
To: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Subject: RE: from call

Thanks so much!

From: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>
Sent: Sunday, March 1, 2020 4:06 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Subject: RE: from call

Looks good, a few edits in red.
Thx
Sue

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Sunday, March 1, 2020 4:03 PM
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Cc: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>
Subject: from call

100k surgical masks exp
2500 face shields exp
5000 small, 10000 **red** and 10000 large, and 5000 xl level 2 **gowns** new
Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) **new**

100k N95s 3M 8210 new

Packing as we speak, arrive in am.

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP)
Sent: Monday, March 2, 2020 9:57 PM PST
To: Duchin, Jeff
Subject: Automatic reply: 4 new positives and 2 negatives [last run tonight: 3/2/20]

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Thank you for your email. I am currently detailed to the CDC novel Coronavirus response and will be slow responding to other emails. I will do my best to respond as soon as possible.

Thank you,
Agam Rao

From: Kay, Meagan
Sent: Monday, March 2, 2020 11:15 AM PST
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Duchin, Jeff; Patel, Resham; Hersh, Dorene; Montgomery, Patricia A (DOH); Clark, Shauna
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
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Subject: FW: from call

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Sent: Sunday, March 1, 2020 4:03 PM

To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Cc: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Subject: from call

100k surgical masks exp

2500 face shields exp

5000 small, 10000 **red** and 10000 large, and 5000 xl level 2 **gowns** new

Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) **new**

100k N95s **3M** 8210 **new**

Packing as we speak, arrive in am.

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 11:04 AM PST
To: Kay, Meagan; Duchin, Jeff
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, John A. (CDC/DDID/NCEZID/DHQP);
Lindquist, Scott SL (CDC doh.wa.gov)
Subject: introduction

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Meagan, Jeff –

Want to put you on the same thread with Tom, John in case helpful in connecting as they arrive tonight.
Satish

From: Kawakami, Vance
Sent: Monday, March 2, 2020 9:25 PM PST
To: zzgrp, CD Investigation Team; Duchin, Jeff; Pogojans, Sargis; Kay, Meagan; Worsham, Dennis; data, cdimms; Hatt, Grace; Baure, David; Apa, James; Cole, Kate; Stein, Kate; Karasz, Hilary
CC: ige4@cdc.gov
Subject: 4 new positives and 2 negatives [last run tonight: 3/2/20]

Positives: (n=4)

202011763
202011822
202011766
202011727

Negatives: (n=2)

202011770
202011824

Eileen and I are calling the patients and HCFs now.

Vance

Vance Kawakami (*he/him*), DVM, MPH, DACVPM

Program Lead, Zoonotic and Emerging Diseases
Public Health — Seattle & King County
Communicable Disease Epidemiology & Immunization section
401 5th Ave. #1200
Seattle, WA 98104
(206) 263-7971 (desk) | (206) 423-8160 (work cell) | (206) 296-4803 (fax)
vance.kawakami@kingcounty.gov

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP)
Sent: Tuesday, March 3, 2020 7:16 PM PST
To: Duchin, Jeff
CC: Kay, Meagan; Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, John A. (CDC/DDID/NCEZID/DHQP)
Subject: FW: Need Info ASAP

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Hi Jeff,

The epi team has answers for 3 of your 4 questions. I defer to John and his infection control team for the answers to your question #2.

--Agam and the rest of the epi team

1. Of the 21 cases reported on 3/3 morning:

- 16 may be part of one large cluster. This large cluster involves the Life Care LTCF AND the dialysis facility where one Life Care patient received dialysis.
- The CDC epi team has been investigating the other 5 cases. We believe that some of these people too may be connected to the larger cluster but are still doing work to sort that out.

Briefly:

- 1 person: Person who works for Emerald City Movers and worked for an unknown number of days while symptomatic. Some of his contacts are ill
- 2 people: Person who frequently goes dancing in Kirkland + his wife
- 1 person: Contractor from Q Analysts to FB. Q analysts is Headquartered in Kirkland. It is not known how much time he spent in Kirkland before illness onset. His family thinks though that he got exposed by a FB co-worker who was sick.
- 1 person: Unknown connection to the other cases. But he works at Amazon and apparently attended a FB party the day of illness onset

3. We can speak to the number of exposure locations of 8 of the known cases.

- 16 locations. The details are: Bartending at Century Link Stadium this past week, middle school soccer game, home contacts for various patients, dialysis facility, visitors at Evergreen hospital, visitors at Valley Hospital + gatherings with friends, work at Facebook, Target grocery run, work at Amazon

4. Close contacts for 7 people: ~75 (best guess because people were potentially exposed at large gatherings soccer game). We do not know the number of people that the woman who bartended this weekend at Century Link Stadium this past weekend may have exposed but presumably a large number of people to add to this number of 75.

--Agam

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Sent: Tuesday, March 3, 2020 6:20 PM

To: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD)

<tnc4@cdc.gov>

Subject: Need Info ASAP

Hi, team leaders. We are planning on announcing new community mitigation guidance with Executive Constantine tomorrow. I'd like to have a succinct summary of the state of the outbreak to help me frame the reasons the new measures are necessary with as much as we can say about the following: .

1. Epi summary with our best estimate of the number of discrete/unrelated community transmission clusters.
2. Impact on HC system – number of involved facilities, other available metrics.
3. Number of exposure locations of known cases.
4. Estimated number of close contacts of confirmed cases.

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

From: Patel, Resham
Sent: Tuesday, March 3, 2020 9:36 PM PST
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Barbour, Samantha
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Kay, Meagan; Duchin, Jeff; Montgomery, Patricia A (DOH); Clark, Shauna; Elsenboss, Carina
Subject: RE: from call

Hi John and team,

My understanding is that the shipment to DOH was delayed. I am trying get confirmation of if it arrived, or when it will arrive. Please let me know if you have heard that the shipment has arrived and/or PPE has been received at either Lifecare or EvergreenHealth.

We have submitted a request for Life Care for the following (2,500 each based on discussions w/Patty, Claire, Shauna), which we hope to be filled by the SNS:

- Surgical mask
- Face shields
- Gowns (ideally Blue/Yellow)

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Evergreen:

- We connected with them earlier and the only thing from the SNS that seemed useful was surgical masks. I cannot recall quantity we requested for them, but can check tomorrow.
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 - o Requested (1000 each): 3M 1860 Reg Masks, 3M 1860s Small Masks, 3M 1870 Masks
 - o In SNS: 3M 8210 n95s

Thanks,
Resham

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To: Patel, Resham <Resham.Patel@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Elsenboss,

Carina <Carina.Elsenboss@kingcounty.gov>

Subject: Re: from call

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Sent: Monday, March 2, 2020 12:07 PM

To: Patel, Resham <Resham.Patel@kingcounty.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>; Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>

Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>

Subject: RE: from call

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I can be POC here on the ground for CDC questions regarding infection control needs. Yes I think Lifecare and Evergreen priority, but this could change. Also, there could be some nuance regarding which facilities need which kind of PPE, so before delivery it would be good to confirm with them what their needs are. (I know for a fact Lifecare needs face shields)

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kingcounty.gov) <jeff.duchin@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
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Will follow up if we have any logistical questions for CDC/SNS – who would be the point in that instance?

Thanks!
Resham

Resham Patel, MPH

Deputy Area Commander
Health & Medical Area Command
Public Health – Seattle & King County
resham.patel@kingcounty.gov
w. (206) 263-8552 | c. (206) 659-2913
Pronouns: she/they

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Sent: Monday, March 2, 2020 11:33:11 AM
To: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: RE: from call

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Thanks Sam. I actually got an update and some of the supplies have already arrived at the “RSS” (I don’t know what that is). Is there a way to prioritize delivery of some of those supplies to some of the key healthcare facilities?

John Jernigan

From: Kay, Meagan <Meagan.Kay@kingcounty.gov>
Sent: Monday, March 2, 2020 2:21 PM
To: Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: Re: from call

Including Sam

From: Hersh, Dorene <Dorene.Hersh@kingcounty.gov>
Sent: Monday, March 2, 2020 11:18:44 AM
To: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: RE: from call

I assume it's someone in Logistics. I'm only setting up the call center. I'm sorry I'm not more help.

From: Kay, Meagan <Meagan.Kay@kingcounty.gov>
Sent: Monday, March 2, 2020 11:16 AM
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: Re: from call

Hi all,

Who should John connect with. Dorene is it you?

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Sent: Monday, March 2, 2020 11:03:17 AM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: FW: from call

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Who can I touch base with to help get some of these distributed to key facilities e.g. eye protection for Lifecare)?

From: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Sent: Monday, March 2, 2020 10:29 AM

To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>

Subject: Re: from call

Hi John

Here is an update on delivery times:

Gloves: 3/2/2020 – 12 pm EST

N95 respirators/surgical face masks/ face shields: 3/3/2020 – 3:30 pm EST

Gowns – (shipping from McKesson): 3/2/2020 No time provided yet, and 3/3/2020, No time provided yet

Sue

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From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Sent: Sunday, March 1, 2020 4:42:03 PM

To: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>

Subject: RE: from call

Thanks so much!

From: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Sent: Sunday, March 1, 2020 4:06 PM

To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Subject: RE: from call

Looks good, a few edits in red.

Thx

Sue

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>

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Cc: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Subject: from call

100k surgical masks exp

2500 face shields exp

5000 small, 10000 **med** and 10000 large, and 5000 xl level 2 **gowns** new

Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) **new**

100k N95s **3M** 8210 **new**

Packing as we speak, arrive in am.

From: Montgomery, Patricia A (DOH)
Sent: Tuesday, March 3, 2020 10:38 PM PST
To: Duchin, Jeff; Patel, Resham; Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Barbour, Samantha
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Kay, Meagan; Clark, Shauna; Elsenboss, Carina
Subject: RE: from call

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Thank you Rashem,

I have the model number for the Purell.
They have 12 bottles left for their dispensers.
Product Number 77341800
Gojo
Manufacturer number 2151-08

What about Emerald Heights?
Is there any way to streamline this process. It is so important that our health care providers on the front line can practice safely.

Patty

From: Duchin, Jeff [mailto:Jeff.Duchin@kingcounty.gov]
Sent: Tuesday, March 3, 2020 9:42 PM
To: Patel, Resham <Resham.Patel@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Elsenboss, Carina (DOHi) <Carina.elsenboss@kingcounty.gov>
Subject: Re: from call

Great. Can NWHRN get some from our area HCF to hold them over?

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
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Thanks!

Resham

Resham Patel, MPH

Deputy Area Commander

Health & Medical Area Command

Public Health – Seattle & King County

resham.patel@kingcounty.gov

w. (206) 263-8552 | c. (206) 659-2913

Pronouns: she/they

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Sent: Monday, March 2, 2020 11:33:11 AM

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Thanks Sam. I actually got an update and some of the supplies have already arrived at the “RSS” (I don’t know what that is). Is there a way to prioritize delivery of some of those supplies to some of the key healthcare facilities?

John Jernigan

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Subject: Re: from call

Hi John

Here is an update on delivery times:

Gloves: 3/2/2020 – 12 pm EST

N95 respirators/surgical face masks/ face shields: 3/3/2020 – 3:30 pm EST

Gowns – (shipping from McKesson): 3/2/2020 No time provided yet, and 3/3/2020, No time provided yet

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Subject: from call

100k surgical masks exp

2500 face shields exp

5000 small, 10000 **med** and 10000 large, and 5000 xl level 2 **gowns** new

Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) **new**

100k N95s **3M** 8210 **new**

Packing as we speak, arrive in am.

From: Patel, Resham
Sent: Wednesday, March 4, 2020 9:58 PM PST
To: Montgomery, Patricia A (DOH); Duchin, Jeff; Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Barbour, Samantha
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Kay, Meagan; Clark, Shauna; Elsenboss, Carina
Subject: RE: from call

Thanks Patty. We have asked our NWHRN colleagues and others to help with the Purell. In general, there is no local supply and the Network is not having much success with local mutual aid.

Emerald Heights should be receiving some PPE tomorrow. Face shields are less available, so that may not come through.

From: Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>
Sent: Tuesday, March 3, 2020 10:39 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
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Thank you Rashem,

I have the model number for the Purell.
They have 12 bottles left for their dispensers.
Product Number 77341800
Gojo
Manufacturer number 2151-08

What about Emerald Heights?

Is there any way to streamline this process. It is so important that our health care providers on the front line can practice safely.

Patty

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Subject: Re: from call

Great. Can NWHRN get some from our area HCF to hold them over?

Jeffrey S. Duchin, MD (he/him)
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
E-mail: jeff.duchin@kingcounty.gov

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Hi John and team,

My understanding is that the shipment to DOH was delayed. I am trying get confirmation of if it arrived, or when it will arrive. Please let me know if you have heard that the shipment has arrived and/or PPE has been received at either Lifecare or EvergreenHealth.

We have submitted a request for Life Care for the following (2,500 each based on discussions w/Patty, Claire, Shauna), which we hope to be filled by the SNS:

- Surgical mask
- Face shields
- Gowns (ideally Blue/Yellow)

Outside the SNS, we have also submitted their request for 50 units of Purrell hand sanitizer refill, though I don't think Lifecare shared the model type, so may have challenges fulfilling.

Evergreen:

- We connected with them earlier and the only thing from the SNS that seemed useful was surgical masks. I cannot recall quantity we requested for them, but can check tomorrow.
- There is still an outstanding request to get 50 PAPRs, but that has not been fulfilled locally, by the state or through distributors. Based on below information about SNS contents, I do not think they will be able to fill through that mechanism. Colleagues at the Network are going to see if they can get a few to EvergreenHealth via mutual aid or with local partners. We will likely need help to get the balance fulfilled as this was marked as critical.
- There is an outstanding request for n95s that have not yet been filled locally, by the state, or through distributors. The SNS has some n95s, but not the model requested by Evergreen (see

below). Let me know if this could a reasonable substitution, recognizing they would need to be fit tested, etc.

- Requested (1000 each): 3M 1860 Reg Masks, 3M 1860s Small Masks, 3M 1870 Masks
- In SNS: 3M 8210 n95s

Thanks,
Resham

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Sent: Monday, March 2, 2020 11:33:11 AM
To: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: RE: from call

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Thanks Sam. I actually got an update and some of the supplies have already arrived at the "RSS" (I don't know what that is). Is there a way to prioritize delivery of some of those supplies to some of the key healthcare facilities?

John Jernigan

From: Kay, Meagan <Meagan.Kay@kingcounty.gov>
Sent: Monday, March 2, 2020 2:21 PM
To: Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
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Subject: Re: from call

Including Sam

From: Hersh, Dorene <Dorene.Hersh@kingcounty.gov>
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To: Kay, Meagan <Meagan.Kay@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Patel, Resham <Resham.Patel@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>
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Hi all,

Who should John connect with. Dorene is it you?

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To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>
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Who can I touch base with to help get some of these distributed to key facilities e.g. eye protection for Lifecare)?

From: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Sent: Monday, March 2, 2020 10:29 AM

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Subject: Re: from call

Hi John

Here is an update on delivery times:

Gloves: 3/2/2020 – 12 pm EST

N95 respirators/surgical face masks/ face shields: 3/3/2020 – 3:30 pm EST

Gowns – (shipping from McKesson): 3/2/2020 No time provided yet, and 3/3/2020, No time provided yet

Sue

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To: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>

Subject: RE: from call

Thanks so much!

From: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Sent: Sunday, March 1, 2020 4:06 PM

To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Subject: RE: from call

Looks good, a few edits in red.

Thx

Sue

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Cc: Gorman, Susan (CDC/SNS/DSNS) <spg4@cdc.gov>

Subject: from call

100k surgical masks exp

2500 face shields exp

5000 small, 10000 **med** and 10000 large, and 5000 xl level 2 **gowns** new

Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) **new**

100k N95s **3M 8210 new**

Packing as we speak, arrive in am.

From: Patel, Resham
Sent: Monday, March 2, 2020 10:26 PM PST
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Barbour, Samantha
CC: Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Kay, Meagan; Duchin, Jeff; Montgomery, Patricia A (DOH); Clark, Shauna; Elsenboss, Carina
Subject: RE: from call

Thanks John, appreciate the guidance. We connected with Lifecare and Evergreen about their needs today. Sam and I will be coordinating w DOH tomorrow morning to get some priority PPE to Lifecare and EvergreenHealth in the afternoon. Won't be all the things needed, but hopefully a step in the right direction.

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Sent: Monday, March 2, 2020 12:07 PM
To: Patel, Resham <Resham.Patel@kingcounty.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>; Elsenboss, Carina <Carina.Elsenboss@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Kay, Meagan <Meagan.Kay@kingcounty.gov>
Subject: RE: from call

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I can be POC here on the ground for CDC questions regarding infection control needs. Yes I think Lifecare and Evergreen priority, but this could change. Also, there could be some nuance regarding which facilities need which kind of PPE, so before delivery it would be good to confirm with them what their needs are. (I know for a fact Lifecare needs face shields)

From: Patel, Resham <Resham.Patel@kingcounty.gov>
Sent: Monday, March 2, 2020 2:46 PM
To: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Hersh, Dorene <Dorene.Hersh@kingcounty.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>; Montgomery, Patricia A (DOH) <patricia.montgomery@doh.wa.gov>; Clark, Shauna <shclark@kingcounty.gov>; Barbour, Samantha <Samantha.Barbour@kingcounty.gov>
Cc: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: Re: from call

Hi John,

Thank you for the information below – really helpful!

I have connected with our Logs Team (Sam Barbour is the Section Chief) and filled them in a bit on the transportation needs. We will work on connecting the dots between WA DOH (who is running the RSS)

and the impacted facilities. Confirming that priority is EvergreenHealth and LifeCare – please let me and Sam know if we are expanding to other facilities for immediate need.

Will follow up if we have any logistical questions for CDC/SNS – who would be the point in that instance?

Thanks!
Resham

Resham Patel, MPH

Deputy Area Commander
Health & Medical Area Command
Public Health – Seattle & King County
resham.patel@kingcounty.gov
w. (206) 263-8552 | c. (206) 659-2913
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Subject: from call

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2500 face shields exp
5000 small, 10000 red and 10000 large, and 5000 xl level 2 gowns new
Gloves long (5000 sm, 15000 med, 10000 large, 5000 xl) new
100k N95s 3M 8210 new

Packing as we speak, arrive in am.

From: shendure@gmail.com
Sent: Saturday, February 29, 2020 11:47 AM PST
To: Armstrong, Gregory (CDC/DDID/NCEZID/OD)
CC: Scott Dowell; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID); bosc@bgc3.com; Sharon Bergquist (Gates Ventures); Dan Wattendorf; Duchin, Jeff; Schrag, Stephanie (CDC/DDID/NCIRD/DBD); helenchu@uw.edu
Subject: Re: Seattle flu (Covid-19?) study - introductions

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Thanks Greg, and great to chat.

Stephanie, I just tried you but straight to voice mail. Please call or text when you get a sec. I'm also adding Helen Chu to this thread, who will be a key contact for getting up to speed.

Sent from my iPhone

On Feb 29, 2020, at 11:20 AM, Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov> wrote:

Jay: Let me introduce you to Stephanie Schrag, who is tentatively flying out tomorrow to meet with your team. She is a very seasoned epidemiologist here who has been working in bacterial respiratory disease since 1998.

When you're off your call, can you call her at 404.580.1960?

Thanks,
Greg

Gregory Armstrong, MD | currently assigned to CDC Coronavirus Response as Deputy Incident Manager | garmstrong@cdc.gov

From: Jay Shendure <shendure@gmail.com>
Sent: Friday, February 28, 2020 7:29 PM
To: Scott Dowell <Scott.Dowell@gatesfoundation.org>
Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>; bosc@bgc3.com; Sharon Bergquist (Gates Ventures) <Sharon.Bergquist@gatesventures.com>; Dan Wattendorf <Dan.Wattendorf@gatesfoundation.org>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Subject: Re: Seattle flu (Covid-19?) study - introductions

Many thanks for the introduction, Scott.

Greg, it's terrific to hear those sentiments from the CDC, and we look forward to working with you to find an effective path forward.

It would be great to connect by phone as soon as you have a bit of time. My cell phone is 617-921-7248. Please feel free to just give me a ring or let me know if there would be a best time for you. I can make myself available whenever suits you best.

Jay

On Fri, Feb 28, 2020 at 4:18 PM Scott Dowell <Scott.Dowell@gatesfoundation.org> wrote:

Greg Armstrong let me introduce you to Jay Shendure, co-pi of the Seattle Flu Study. Greg is deputy incident manager for CDC's Covid-19 response. Hoping you two can talk, bringing in relevant colleagues from the UW clinical lab (CLIA-approved for high complexity testing) as needed.

Dan Jernigan and I spoke earlier to touch bases on the new case here and the potentially valuable role of the SFS in future Covid-19 surveillance. He said Greg would be the ideal person to follow up.

I also spoke with SFS colleagues copied, and reassured them that CDC is actually thrilled to have the additional resources of SFS to detect and track Covid-19, and with all of us wants to figure out how to do it with full ethical and regulatory transparency.

I'm sure you can figure out a range of workable solutions. Some relevant points I noted from our discussions so far:

- SFS patients consent to viral testing beyond flu, and the IRB is comfortable that covers Covid-19
- The website is explicit that SFS is working with public health authorities on Covid-19
- Current pace is about 400 patients tested per day
- There is no current expectation that subjects would receive notice of a negative Covid-19 result
- Positives can be referred to the UW clinical lab for approved Covid-19 confirmation

As you follow up feel free to keep me and those copied in the loop.

Thanks all for some quick and productive discussions!
Scott

From: Lofy, Kathy H (DOH)
Sent: Saturday, February 29, 2020 3:45 PM PST
To: Knutson, Donna (CDC/DDNID/NCEH/OD); Pillai, Satish K. (CDC/DDID/NCEZID/DPEI); Duchin, Jeff
CC: Patel, Anita (CDC/DDID/NCIRD/OD); Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID)
Subject: RE: connection

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I'm not sure how to request this support. Who should I request it from?

From: Knutson, Donna (CDC/DDNID/NCEH/OD) [mailto:dbk2@cdc.gov]
Sent: Saturday, February 29, 2020 3:40 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Duchin, Jeffery, MD (DOHi) <jeff.duchin@kingcounty.gov>
Cc: Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: Re: connection

Yes - they are expecting a call from the state through the rec and they will entertain assisting.

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From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Saturday, February 29, 2020 6:38:33 PM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: RE: connection

Plus Jeff –
Donna, any word from ASPR?
Thanks,
satish

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Hi Donna –

Including Kathy (State Health Officer, WA) – she and her colleagues in King County asked about surge care staff for the SNF, given that 10% of staff are with respiratory illness. We thought maybe there is an opportunity for DMAT support here, and wanted to connect you with Kathy. Wonder if that is a question for John Smart who is the ASPR assignee in Region X – but defer to you on routing. Including IM leadership, SCTF leadership here as well. CDC will be supporting with IPC, worker safety, epi, and communications safety.

Thanks,
satish

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 3:43 PM PST
To: Knutson, Donna (CDC/DDNID/NCEH/OD); Duchin, Jeff
CC: Lofy, Kathy KL (CDC doh.wa.gov); Patel, Anita (CDC/DDID/NCIRD/OD); Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID)
Subject: RE: connection

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Thank you Donna.

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Thanks,
satish

From: State and Local Readiness (CDC)
Sent: Friday, February 21, 2020 2:28 PM PST
To: State and Local Readiness (CDC)
Subject: 2-21-20 Interim guidance documents relevant to State, Local, and Territorial partners regarding COVID-19
Attachments: COVID-19_GuidanceList_21FEB20.pdf

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Dear Colleagues,

Attached is a list of current interim guidance documents relevant to State, Local, and Territorial partners regarding COVID-19, as of 02-21-2020.

Please feel free to share with partners. Please note that the names of the guidance documents may be updated in the future.

Thank you,

State Coordination Task Force

Sent by BCC to PHEP Directors, SHOS, State Epis, Non-governmental Partners, STLTs, and BCHC

From: Grohskopf, Lisa A. (CDC/DDID/NCIRD/ID)
Sent: Monday, March 2, 2020 12:52 AM PST
To: Alyanak, Elif (CDC/DDID/NCIRD/ID) (CTR); 'kault2@kumc.edu'; 'Belongia.Edward@mcrf.mfldclin.edu'; 'hbernstein@nshs.edu'; Duchin, Jeff; 'Sandra Fryhofer'; 'Keitel, Wendy A.'; 'Mleger@aapa.org'; 'Dr.Jamie.Loehr@gmail.com'; 'kneuzil@medicine.umaryland.edu'; 'Lett, Susan (DPH)'; 'Tamara.Sheffield@imail.org'; Schaffner, William (CDC vanderbilt.edu); 'Schechter, Robert (CDPH-CID-DCDC-IMM)'; 'Kenneth Schmader'; 'Patsy Stinchfield'; Brammer, Lynnette (CDC/DDID/NCIRD/ID); 'Zahn, Matthew'; Bresee, Joseph (CDC/DDID/NCIRD/ID); Broder, Karen (CDC/DDID/NCEZID/DHQP); Destefano, Frank (CDC/DDID/NCEZID/DHQP); Flannery, Brendan (CDC/DDID/NCIRD/ID); Fry, Alicia (CDC/DDID/NCIRD/ID); Graitcer, Samuel B. (CDC/DDID/NCIRD/ID); Haber, Penina (CDC/DDID/NCEZID/DHQP); Kroger, Andrew (CDC/DDID/NCIRD/ID); Nolletti, Cynthia (FDA/CBER); Santoli, Jeanne (CDC/DDID/NCIRD/ID); Shimabukuro, Tom (CDC/DDID/NCEZID/DHQP); Tokars, Jerome (Jerry) (CDC/DDID/NCIRD/ID); Uyeki, Timothy M. (CDC/DDID/NCIRD/ID); 'Emmanuel Walter, M.D. (chip.walter@duke.edu)'; 'florm@bcm.edu'; Parker Fiebelkorn, Amy (CDC/DDID/NCIRD/ID); Ferdinands, Jill (CDC/DDID/NCIRD/ID); Budd, Alicia (CDC/DDID/NCIRD/ID); 'PSzilagyi@mednet.ucla.edu'; 'Sarah Despres'; 'Ian M Gemmill'; 'Sarah Coles'; 'Atmar, Robert Legare'; 'buddy.creech@vanderbilt.edu'; Patel, Manish (CDC/DDID/NCIRD/ID); Wollersheim, Susan (FDA/CBER); djamieson@emory.edu; Cooper, Michael (NIH/NIAID) [E]; Young, Kelsey (PHAC/ASPC); Chung, Jessie (CDC/DDID/NCIRD/ID); Rolfes, Melissa (CDC/DDID/NCIRD/ID); Talbot, Helen K; Mulligan, Mark; Blanton, Lenée (CDC/DDID/NCIRD/ID)
CC: Jernigan, Daniel B. (CDC/DDID/NCIRD/ID); Cohn, Amanda (CDC/DDID/NCIRD/OD); MacNeil, Jessica R. (CDC/DDID/NCIRD/OD); Thompson, Mark (CDC/DDID/NCIRD/ID); Dugan, Vivien (CDC/DDID/NCIRD/ID)
Subject: No ACIP Influenza WG call tomorrow (Tuesday 3/3/2020)

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Dear Colleagues,

We will not have our scheduled call tomorrow, March 3. Our next call will be on Tuesday, March 17. For that call, we plan to have further discussion of LAIV use in specific populations.

Best,
Lisa

CDC Coronavirus Disease 2019 (COVID-19) Guidance for State, Local, and Territorial Partners and Local Health Departments

Interim guidance documents relevant to State, Local, and Territorial partners regarding COVID-19

Aircraft

[Interim Guidance for Airlines and Airline Crew: Coronavirus Disease 2019 \(COVID-19\)](#)

- Interim guidance for the commercial airline industry about COVID-19

[Safety Alert for Operators 20001: 2019 Novel Coronavirus: Interim Health Guidance for Air Carrier and Crews](#)

- Interim guidance from the CDC and Federal Aviation Administration for Air Carriers and Crewmembers

[Preventing Spread of Disease on Commercial Aircraft: Guidance for Cabin Crew](#)

- This guidance provides cabin crew with practical methods to protect themselves, passengers, and other crew members when someone onboard is sick with a possible contagious disease.

Businesses, Employers, and Schools

[Interim Guidance for Businesses and Employers to Plan and Respond to Coronavirus Disease 2019 \(COVID-19\), February 2020](#)

- Interim guidance that may help prevent workplace exposures to acute respiratory illness, including COVID-19, in non-healthcare settings.

Healthcare Professionals

[Evaluating and Reporting Persons Under Investigation \(PUI\)](#)

- The Centers for Disease Control and Prevention (CDC) clinical criteria for a COVID-19 person under investigation (PUI). Subject to change as additional information becomes available.

[Flowchart to Identify and Assess 2019 Novel Coronavirus](#)

- Flowchart for the evaluation of patients who may be ill with or who may have been exposed to COVID-19.

[Interim Infection Prevention and Control Recommendations for Patients with Confirmed Severe acute respiratory syndrome coronavirus 2 \(SARS-CoV-2\) or Persons Under Investigation for SARS-CoV-2 in Healthcare Settings](#)

- Interim infection control procedures including administrative rules and engineering controls, environmental hygiene, correct work practices, and appropriate use of personal protective equipment (PPE) are all necessary to prevent infections from spreading during healthcare delivery. **This guidance is not intended for non-healthcare settings (e.g., schools) OR to persons outside of healthcare settings.**

[Interim Guidance of Emergency Medical Services \(EMS\) Systems and 911 Public Safety Answering Points \(PASPs\) for COVID-19 in the United States](#)

- Interim guidance for all first responders, including law enforcement, fire services, emergency medical services, and emergency management officials, who anticipate close contact with persons with confirmed or possible COVID-19 in the course of their work

[Interim Guidance for Collection and Submission of Postmortem Specimens from Deceased Persons Under Investigation \(PUI\) for COVID-19, February 2020](#)

- Interim guidance for the collection and submission of postmortem specimens from deceased persons under investigation (PUI) for COVID-19. This document also provides recommendations for biosafety and infection control practices during specimen collection and handling, including during autopsy procedures. The guidance can be utilized by medical examiners, coroners, pathologists, other workers involved in the postmortem care of deceased PUI, and local and state health departments.

[Interim Guidance for Discontinuation of Transmission-Based Precautions and Disposition of Hospitalized Patients with COVID-19](#)

- Interim guidance for healthcare providers and public health officials managing patients with coronavirus disease (COVID-19) to help prevent the spread of COVID-19 in healthcare facilities.

[Interim Clinical Guidance for Management of Patients with Confirmed COVID-19](#)

- Interim guidance for clinicians caring for patients with confirmed COVID-19

[Interim Guidance for Implementing Home Care of People Not Requiring Hospitalization for 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance for staff at local and state health departments, infection prevention and control professionals, and healthcare personnel who are coordinating the home care and isolation¹ of people with confirmed or suspected 2019-nCoV infection, including persons under investigation (see [Criteria to Guide Evaluation of Persons Under Investigation \(PUI\) for 2019-nCoV](#)).

[Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance intended to assist with assessment of risk, monitoring, and work restriction decisions for HCP with potential exposure to 2019-nCoV. For guidance on assessment and management of exposure risk in non-healthcare settings, refer to [the Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus \(2019-nCoV\) Exposure in Travel-associated or Community Settings](#).

Infection Control

[Interim Guidance for Preventing the Spread of Coronavirus Disease 2019 \(COVID-19\) in Homes and Residential Communities](#)

- Interim guidance to help prevent COVID-19 from spreading among people in their homes and in other residential communities.

[Interim Guidance for Discontinuation of In-Home Isolation for Patients with COVID-19](#)

- Interim guidance to help healthcare providers and public health officials managing patients with coronavirus disease (COVID-19) under in-home isolation to help prevent the spread of COVID-19 in the community.

Maritime

[Interim Guidance for Ships on Managing Suspected Coronavirus Disease 2019](#)

- Interim guidance for ships originating from, or stopping in, the United States to help prevent, detect, and medically manage suspected 2019-nCoV infections.

Personal Protective Equipment (PPE)

[Healthcare Supply of Personal Protective Equipment](#)

- CDC specific PPE recommendations based on the current COVID-19 situation and availability of PPE.

Public Health Officials

[Information for Health Departments on Reporting a Person Under Investigation \(PUI\) for 2019-nCoV](#)

- Information for health departments on reporting and specimen referral for Persons Under Investigation (PUIs).

[Case Report Form for 2019 Novel Coronavirus](#)

- The Case Report Form is intended for local and state health departments who have a laboratory confirmed case of 2019-nCoV to report to CDC.

[Pandemic Preparedness Resources](#)

- While the content at the links provided below was developed to prepare for, or respond to, an influenza (“flu”) pandemic, the newly emerged coronavirus disease 2019 (COVID-19) is a respiratory disease that seems to be spreading much like flu. Guidance developed for influenza pandemic preparedness would be appropriate in the event the current COVID-19 outbreak triggers a pandemic.

Pregnant Women and Children

[Interim Guidance on Breastfeeding for a Mother Confirmed or Under Investigation for COVID-19](#)

- Interim guidance for women who are confirmed to have COVID-19 or are [persons-under-investigation \(PUI\)](#) for COVID-19 and are currently breastfeeding.

[Interim Considerations for Infection Prevention and Control of Coronavirus Disease 2019 \(COVID-19\) in Inpatient Obstetric Healthcare Settings](#)

- Interim for healthcare facilities providing obstetric care for pregnant patients with confirmed coronavirus disease (COVID-19) or pregnant [persons under investigation \(PUI\)](#) in inpatient obstetric healthcare settings including obstetrical triage, labor and delivery, recovery and inpatient postpartum settings.

Travelers

[Information for Travelers](#)

- This page includes information about 2019 novel coronavirus (COVID-19) for travelers going to and returning from China, and information for aircrew and resources ship industry.

[Travelers to China](#)

- Travel recommendations for travel to China

[Travelers from China arriving in the U.S.](#)

- Information for travelers from China arriving to the U.S.

Risk Assessment

[Interim US Guidance for Risk Assessment and Public Health Management of Persons with Potential 2019 Novel Coronavirus \(COVID-19\) Exposure in Travel-associated or Community Settings](#)

- Interim guidance to provide U.S. public health authorities and other partners with a framework for assessing and managing risk of potential exposures to COVID-19 and implementing public health actions based on a person's risk level and clinical presentation.

[Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel with Potential Exposure in a Healthcare Setting to Patients with 2019 Novel Coronavirus \(2019-nCoV\)](#)

- Interim guidance is intended to assist with assessment of risk, monitoring, and work restriction decisions for healthcare providers with potential exposure to COVID-19.

Frequently Asked Questions (FAQs)

[Frequently Asked Questions and Answers about COVID-19](#)

- General FAQs

[Healthcare Infection Prevention and Control FAQs for COVID-19](#)

- **Who is this for:** Healthcare personnel who may care for patients who are confirmed with or under investigation for COVID-19.
- **What is it for:** This creates FAQs to support the existing [Healthcare Infection Prevention and Control Guidance for COVID-19](#).
- **How is it used:** To assist healthcare facilities in preventing transmission of COVID-19 in healthcare settings.

[Frequently Asked Questions and Answers: Coronavirus Disease 2019 \(COVID-19\) and Pregnancy](#)

Last updated: February 21, 2020

- This is a list of frequently asked questions and answers for pregnant women, infants, and women who are breastfeeding.

[Frequently Asked Questions about Respirators and their Use](#)

[Healthcare Professionals: Frequently Asked Questions and Answers](#)

- FAQs for healthcare professionals

[Information for Laboratories COVID-19 Requests for Diagnostic Panels and Virus](#)

- FAQs for lab professionals

[Travel: Frequently Asked Questions and Answers](#)

- General travel-related FAQs

Additional Resources

[2020 Health Alert \(HAN\) Messages](#): CDC's Health Alert Network (HAN) is CDC's primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, territorial, tribal, and local public health practitioner; clinicians; and public health laboratories.

[CDC Newsroom: CDC Media Telebriefing: Update on COVID-19](#): CDC provides an update periodically to media on the COVID-19 response. Sign up for media announcements.

[Clinician Outreach and Communication Activity \(COCA\) Calls/Webinars](#): During COCA Calls/Webinars, subject matter experts present key emergency preparedness and response topics, followed by meaningful Q&A with participants. The call or webinar will offer the most up to date information on guidance for clinicians.

[Travel Health Notices](#): Travel Health Notices inform travelers and clinicians about current health issues that impact travelers' health, like disease outbreaks, special events or gatherings, and natural disasters, in specific international destinations.

[Coronavirus Disease 2019 \(COVID-19\) Risk Assessment and Public Health Management Decision Making](#)

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 3:38 PM PST
To: Knutson, Donna (CDC/DDNID/NCEH/OD); Duchin, Jeff
CC: Lofy, Kathy KL (CDC doh.wa.gov); Patel, Anita (CDC/DDID/NCIRD/OD); Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID)
Subject: RE: connection

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Plus Jeff –
Donna, any word from ASPR?
Thanks,
satish

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 11:13 AM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>
Cc: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: connection

Hi Donna –

Including Kathy (State Health Officer, WA) – she and her colleagues in King County asked about surge care staff for the SNF, given that 10% of staff are with respiratory illness. We thought maybe there is an opportunity for DMAT support here, and wanted to connect you with Kathy. Wonder if that is a question for John Smart who is the ASPR assignee in Region X – but defer to you on routing. Including IM leadership, SCTF leadership here as well. CDC will be supporting with IPC, worker safety, epi, and communications safety.

Thanks,
satish

From: Knutson, Donna (CDC/DDNID/NCEH/OD)
Sent: Saturday, February 29, 2020 3:40 PM PST
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI); Duchin, Jeff
CC: Lofy, Kathy KL (CDC doh.wa.gov); Patel, Anita (CDC/DDID/NCIRD/OD); Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID)
Subject: Re: connection

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Yes - they are expecting a call from the state through the rec and they will entertain assisting.

Get [Outlook for iOS](#)

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Saturday, February 29, 2020 6:38:33 PM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: RE: connection

Plus Jeff –
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satish

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Sent: Saturday, February 29, 2020 11:13 AM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>
Cc: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: connection

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Thanks,
satish

From: Armstrong, Gregory (CDC/DDID/NCEZID/OD)
Sent: Sunday, March 1, 2020 5:50 AM PST
To: Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM); McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID); Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Haynes, Lia (CDC/DDPHSIS/CPR/OD)
CC: MacCannell, Duncan (CDC/DDID/NCEZID/OD); Neuhaus, Elizabeth (CDC/DDID/NCEZID/OD); Duchin, Jeff; Lindquist, Scott SL (CDC doh.wa.gov); Trevor Bedford
Subject: FW: Genome sequence from Snohomish County case

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Stephanie and others: An intriguing note on sequencing from the Washington cases:

Trevor Bedford (cc'd here, from UW—Trevor collaborates with CDC and other public health agencies) is a PI on the Seattle Flu Study and has been able to get two Washington samples for sequencing:

- WA1: the first US case (from January, I think)
- WA2: one of the recent ones (he doesn't have access to the others yet—note that "WA2" is a temporary name he has given to it)

Here is what they look like within the phylogenetic tree (<https://nextstrain.org>):



This means that WA2 is a direct descendant of WA1, with 3 additional mutations. This is consistent with a couple of hypotheses:

- The first Washington case wasn't contained and has been circulating in Washington since then. This is actually the most parsimonious explanation.
- This is one of several somewhat common clades (the "clade" here is everything in the red circle) that was circulating in China in the last couple of months (Fujian/8 and Chongqing/YC01 are part of this clade), and by chance we've picked it up in Washington twice. Trevor did some calculations on this, and the crude probability of this happening is $p \sim 0.03$. This assumes that all of the clusters in China are equally likely to be found in people coming to the US; if this particular clade, for example, were to be circulating among people who travel frequently to the US, then this p-level wouldn't be as significant as this suggests.

The bottom line (at least this is my take): The most likely explanation here is that this virus has been circulating in Washington, but this is definitely not proof of that. If sequencing of additional cases shows they belong to different clades, it would suggest there have been multiple introductions into Washington. If they're all within this clade, we'll have to see what the tree looks like after we get many more sequences; the shape of the tree *might* suggest when the introduction occurred and might provide evidence to push towards one of the two hypotheses above.

Gregory Armstrong, MD | currently assigned to CDC Coronavirus Response as Deputy Incident Manager | garmstrong@cdc.gov

From: Trevor Bedford <trevor@bedford.io>
Sent: Saturday, February 29, 2020 10:53 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Mike Famulare <mfamulare@idmod.org>
Subject: Re: Urgent: Genome sequence from Snohomish County case

Greg: I've just submitted as "USA/WA2/2020(provisional)" and can update to "USA/WA2/2020" or otherwise to align with CDC strain numbering.

- Trevor

On Feb 29, 2020, at 7:38 PM, Trevor Bedford <trevor@bedford.io> wrote:

Yes, please. That would most welcome. We're aiming to have methods as open as possible. We can be in touch tomorrow with an initial draft (cc'ing Mike here).

- Trevor

On Feb 29, 2020, at 7:32 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

That's awesome. I hope you wouldn't be insulted by this suggestion but if we're going to make sure the weighty decisions based on this at least in part, would you be open to having some outsiders review the methods and the findings?

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
[E-mail: jeff.duchin@kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)

From: Trevor Bedford <trevor@bedford.io>
Sent: Saturday, February 29, 2020 7:31:09 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>

Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

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Hi Jeff,

We'll be sequencing any additional cases as quickly as possible. I'm assuming that the cases announced today are currently being processed by CDC. Based on the 2 sequenced genomes, the time frame, and finding 1 positive out of ~400 samples we sequenced we are currently estimating a median of 500 infections in Seattle area. Mike Famulare is working on this analysis and we hope to have something more to share tomorrow.

- Trevor

On Feb 29, 2020, at 7:24 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

Trevor, thanks for sharing this information and for doing this incredible work. I'm not very sophisticated with respect to interpreting the data you share but I get the basic picture. One thing I'm wondering is whether you'll be looking at additional strains from Washington? We would love any additional data that can help us understand the transmission dynamics in the community with respect to potential Independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observed mutations to the car. All of this relates to independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observed mutations to occur. All of this relates to triggers for pivoting our approach from case and contact centered to community-based Measures.

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
[E-mail: jeff.duchin@kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)

From: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>
Sent: Saturday, February 29, 2020 6:40:55 PM
To: Trevor Bedford <trevor@bedford.io>
Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

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That makes perfect sense. A logical way of looking at it.

Gregory L. Armstrong MD | garmstrong@cdc.gov

From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 9:36:14 PM

To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>

Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>

Subject: Re: Urgent: Genome sequence from Snohomish County case

Hi Greg,

These are very astute points. And perhaps "firmly suggest" may have been too strong. I'll try to put better probabilities here. I think the key probability is likelihood of sampling 18060T twice in Snohomish. 18060T is present in the Fujian sample and the Chongqing sample. This is 2/59 samples in China with this variant (https://nextstrain.org/ncov?c=gt-nuc_18060&f_country=China). If I had to put a p value on this, I'd say $2/59 = 0.03$.

To me, this is significant and I would favor the hypothesis of endemic circulation. If the second case had been farther away than 10 miles, I might be more skeptical.

- Trevor

On Feb 29, 2020, at 6:18 PM, Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov> wrote:

I'm not sure what convention the lab is using for naming the specimens, but maybe put "(interim identifier)" after it (or something like that).

Some skepticism here, which you should please poke holes in:

- There is often some understated uncertainty when dealing with phylogenetic trees based on a small proportion of the total population of pathogens (i.e., the total number of cases)
- Fujian/8/2020 is identical to WA1, suggesting that this sequence was circulating in China (in Fujian, anyway) and was common enough that it ended up in this relatively small sample. It was probably not the most common clade there, but definitely not rare.
- WA2 is a direct descendant of this clade (i.e., the clade including Fujian/8 and WA1)
- The most parsimonious explanation here is that the virus was circulating in China, was imported as WA1, went through several rounds of transmission in the Seattle area, and was detected (with additional mutations) as WA2
- Another explanation--less parsimonious, but also plausible--is that Fujian/8 and WA1 are from a clade that was circulating in China. It was imported the first time as WA1. It was imported again several weeks later as WA2 (after picking up some more mutations).

So, a skeptic would say that the first hypothesis (the WA1 wasn't contained and has been spreading in the Seattle area) is the most parsimonious, but the second hypothesis (that the were imported separately imported) is plausible enough that we can accept the first hypothesis based solely on the phylogenetic data.

From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 8:58 PM

To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>;

Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>

Subject: Urgent: Genome sequence from Snohomish County case

(Can you please forward to Chris Spitters, I don't have his email address on hand)

Hi Greg, Scott and Jeff,

30 minutes ago we got the genome sequence off the machine and we got this assembled and a phylogeny run.

The results firmly suggest transmission in Washington from WA1 to this this current case, which I'm calling WA2. See attached figure. I believe there has been transmission in the Snohomish Area since the arrival of the first case. This can't tell us the route, but is strongly indicative (alongside location proximity).

Happy to address questions. I'll be getting this up on GISAID tonight.

Greg: Is it okay to name this USA/WA2/2020, with the expectation that the CDC will name it the same thing when they've done their sequencing (good to have the same strain name so there's not confusion).

- Trevor

<wa2.png>

From: Lofy, Kathy H (DOH)
Sent: Saturday, February 29, 2020 4:13 PM PST
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI); Knutson, Donna (CDC/DDNID/NCEH/OD); Duchin, Jeff
CC: Patel, Anita (CDC/DDID/NCIRD/OD); Pietz, Harald (CDC/DDPHSIS/CPR/DSLR);
Jernigan, Daniel B. (CDC/DDID/NCIRD/ID); Wiesman, John (DOH); DOH-IC (DOH); Fehrenbach, Lacy M (DOH)
Subject: RE: connection

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PH-SKC is going to send me an email about what clinical support they need then I will give John a call.
Thanks for your help!

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) [mailto:vig8@cdc.gov]
Sent: Saturday, February 29, 2020 4:04 PM
To: Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>; Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>; Duchin, Jeffery, MD (DOHi) <jeff.duchin@kingcounty.gov>
Cc: Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLR) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: RE: connection

Hi Kathy,
I'm sorry for the apparent extra step, don't want to create extra work for you while you are dealing with all this – I looked up the ASPR REC in outlook: John Smart (206) 615-2506
Hope this helps,
satish

From: Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>
Sent: Saturday, February 29, 2020 6:46 PM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>; Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLR) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: RE: connection

I'm not sure how to request this support. Who should I request it from?

From: Knutson, Donna (CDC/DDNID/NCEH/OD) [mailto:dbk2@cdc.gov]
Sent: Saturday, February 29, 2020 3:40 PM
To: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>; Duchin, Jeffery, MD (DOHi) <jeff.duchin@kingcounty.gov>
Cc: Lofy, Kathy H (DOH) <Kathy.Lofy@DOH.WA.GOV>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLR) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: Re: connection

Yes - they are expecting a call from the state through the rec and they will entertain assisting.

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From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI) <vig8@cdc.gov>
Sent: Saturday, February 29, 2020 6:38:33 PM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: RE: connection

Plus Jeff –
Donna, any word from ASPR?
Thanks,
satish

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 11:13 AM
To: Knutson, Donna (CDC/DDNID/NCEH/OD) <dbk2@cdc.gov>
Cc: Lofy, Kathy KL (CDC doh.wa.gov) <kathy.lofy@doh.wa.gov>; Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLRL) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: connection

Hi Donna –

Including Kathy (State Health Officer, WA) – she and her colleagues in King County asked about surge care staff for the SNF, given that 10% of staff are with respiratory illness. We thought maybe there is an opportunity for DMAT support here, and wanted to connect you with Kathy. Wonder if that is a question for John Smart who is the ASPR assignee in Region X – but defer to you on routing. Including IM leadership, SCTF leadership here as well. CDC will be supporting with IPC, worker safety, epi, and communications safety.

Thanks,
satish

From: Lindquist, Scott W (DOH)
Sent: Sunday, March 1, 2020 10:27 AM PST
To: Armstrong, Gregory (CDC/DDID/NCEZID/OD); Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM); McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID); Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Haynes, Lia (CDC/DDPHSIS/CPR/OD)
CC: MacCannell, Duncan (CDC/DDID/NCEZID/OD); Neuhaus, Elizabeth (CDC/DDID/NCEZID/OD); Duchin, Jeff; Trevor Bedford
Subject: Re: Genome sequence from Snohomish County case

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Greg,

Here at DOH, can we have a call with you and Chris Spitters the health officer in Snohomish? Sometime today would be great.

From: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>

Sent: Sunday, March 1, 2020 5:50:39 AM

To: Bialek, Stephanie R. (CDC/DDPHSIS/CGH/DPDM); McQuiston, Jennifer H. (CDC/DDID/NCEZID/DHCPP); Clark, Thomas A. (CDC/DDID/NCIRD/DVD); Jernigan, Daniel B. (CDC/DDID/NCIRD/ID); Jernigan, John A. (CDC/DDID/NCEZID/DHQP); Kuhnert-Tallman, Wendi (CDC/DDID/OD); Haynes, Lia (CDC/DDPHSIS/CPR/OD)

Cc: MacCannell, Duncan (CDC/DDID/NCEZID/OD); Neuhaus, Elizabeth (CDC/DDID/NCEZID/OD); Duchin, Jeffery, MD (DOHi); Lindquist, Scott W (DOH); Trevor Bedford

Subject: FW: Genome sequence from Snohomish County case

Stephanie and others: An intriguing note on sequencing from the Washington cases:

Trevor Bedford (cc'd here, from UW—Trevor collaborates with CDC and other public health agencies) is a PI on the Seattle Flu Study and has been able to get two Washington samples for sequencing:

- WA1: the first US case (from January, I think)
- WA2: one of the recent ones (he doesn't have access to the others yet—note that "WA2" is a temporary name he has given to it)

Here is what they look like within the phylogenetic tree (<https://nextstrain.org>):



This means that WA2 is a direct descendant of WA1, with 3 additional mutations. This is consistent with a couple of hypotheses:

- The first Washington case wasn't contained and has been circulating in Washington since then. This is actually the most parsimonious explanation.
- This is one of several somewhat common clades (the "clade" here is everything in the red circle) that was circulating in China in the last couple of months (Fujian/8 and Chongqing/YC01 are part of this clade), and by chance we've picked it up in Washington twice. Trevor did some calculations on this, and the crude probability of this happening is $p \sim 0.03$. This assumes that all of the clusters in China are equally likely to be found in people coming to the US; if this particular clade, for example, were to be circulating among people who travel frequently to the US, then this p-level wouldn't be as significant as this suggests.

The bottom line (at least this is my take): The most likely explanation here is that this virus has been circulating in Washington, but this is definitely not proof of that. If sequencing of additional cases shows they belong to different clades, it would suggest there have been multiple introductions into Washington. If they're all within this clade, we'll have to see what the tree looks like after we get many more sequences; the shape of the tree *might* suggest when the introduction occurred and might provide evidence to push towards one of the two hypotheses above.

Gregory Armstrong, MD | currently assigned to CDC Coronavirus Response as Deputy Incident Manager | garmstrong@cdc.gov

From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 10:53 PM

To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>

Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Mike Famulare <mfamulare@idmod.org>

Subject: Re: Urgent: Genome sequence from Snohomish County case

Greg: I've just submitted as "USA/WA2/2020(provisional)" and can update to "USA/WA2/2020" or otherwise to align with CDC strain numbering.

- Trevor

On Feb 29, 2020, at 7:38 PM, Trevor Bedford <trevor@bedford.io> wrote:

Yes, please. That would most welcome. We're aiming to have methods as open as possible. We can be in touch tomorrow with an initial draft (cc'ing Mike here).

- Trevor

On Feb 29, 2020, at 7:32 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

That's awesome. I hope you wouldn't be insulted by this suggestion but if we're going to make sure the weighty decisions based on this at least in part, would you be open to having some outsiders review the methods and the findings?

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
[E-mail: jeff.duchin@kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)

From: Trevor Bedford <trevor@bedford.io>
Sent: Saturday, February 29, 2020 7:31:09 PM
To: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Cc: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

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Hi Jeff,

We'll be sequencing any additional cases as quickly as possible. I'm assuming that the cases announced today are currently being processed by CDC. Based on the 2 sequenced genomes, the time frame, and finding 1 positive out of ~400 samples we sequenced we are currently estimating a median of 500 infections in Seattle area. Mike Famulare is working on this analysis and we hope to have something more to share tomorrow.

- Trevor

On Feb 29, 2020, at 7:24 PM, Duchin, Jeff <Jeff.Duchin@kingcounty.gov> wrote:

Trevor, thanks for sharing this information and for doing this incredible work. I'm not very sophisticated with respect to interpreting the data you share but I get the basic picture. One thing I'm wondering is whether you'll be looking at additional strains from Washington? We would love any additional data that can help us understand the transmission dynamics in the community with respect to potential Independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observe mutations to the car. All of this relates to independent transmission lineages and if possible any estimate on a number of persons that would need to have had this infection for the observe mutations to occur. All of this relates to triggers for pivoting our approach from case and contact centered to community-based Measures.

Jeffrey S. Duchin, MD
Health Officer and Chief, Communicable Disease Epidemiology & Immunization Section
Public Health - Seattle and King County
Professor in Medicine, Division of Infectious Diseases, University of Washington
Adjunct Professor, School of Public Health
401 5th Ave, Suite 1250, Seattle, WA 98104
Tel: (206) 296-4774; Direct: (206) 263-8171; Fax: (206) 296-4803
[E-mail: jeff.duchin@kingcounty.gov](mailto:jeff.duchin@kingcounty.gov)

From: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>
Sent: Saturday, February 29, 2020 6:40:55 PM
To: Trevor Bedford <trevor@bedford.io>
Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

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That makes perfect sense. A logical way of looking at it.

Gregory L. Armstrong MD | garmstrong@cdc.gov

From: Trevor Bedford <trevor@bedford.io>
Sent: Saturday, February 29, 2020 9:36:14 PM
To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>
Cc: Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Subject: Re: Urgent: Genome sequence from Snohomish County case

Hi Greg,

These are very astute points. And perhaps "firmly suggest" may have been too strong. I'll try to put better probabilities here. I think the key probability is likelihood of sampling 18060T twice in Snohomish. 18060T is present in the Fujian sample and the Chongqing sample. This is 2/59 samples in China with this variant (https://nextstrain.org/ncov?c=gt-nuc_18060&f_country=China). If I had to put a p value on this, I'd say 2/59 = 0.03.

To me, this is significant and I would favor the hypothesis of endemic circulation. If the second case had been farther away than 10 miles, I might be more skeptical.

- Trevor

On Feb 29, 2020, at 6:18 PM, Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov> wrote:

I'm not sure what convention the lab is using for naming the specimens, but maybe put "(interim identifier)" after it (or something like that).

Some skepticism here, which you should please poke holes in:

- There is often some understated uncertainty when dealing with phylogenetic trees based on a small proportion of the total population of pathogens (i.e., the total number of cases)
- Fujian/8/2020 is identical to WA1, suggesting that this sequence was circulating in China (in Fujian, anyway) and was common enough that it ended up in this relatively small sample. It was probably not the most common clade there, but definitely not rare.
- WA2 is a direct descendant of this clade (i.e., the clade including Fujian/8 and WA1)
- The most parsimonious explanation here is that the virus was circulating in China, was imported as WA1, went through several rounds of transmission in the Seattle area, and was detected (with additional mutations) as WA2
- Another explanation--less parsimonious, but also plausible--is that Fujian/8 and WA1 are from a clade that was circulating in China. It was imported the first time as WA1. It was imported again several weeks later as WA2 (after picking up some more mutations).

So, a skeptic would say that the first hypothesis (the WA1 wasn't contained and has been spreading in the Seattle area) is the most parsimonious, but the second hypothesis (that they were imported separately) is plausible enough that we can accept the first hypothesis based solely on the phylogenetic data.

From: Trevor Bedford <trevor@bedford.io>

Sent: Saturday, February 29, 2020 8:58 PM

To: Armstrong, Gregory (CDC/DDID/NCEZID/OD) <gca3@cdc.gov>; Lindquist, Scott SL (CDC doh.wa.gov) <scott.lindquist@doh.wa.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>

Subject: Urgent: Genome sequence from Snohomish County case

(Can you please forward to Chris Spitters, I don't have his email address on hand)

Hi Greg, Scott and Jeff,

30 minutes ago we got the genome sequence off the machine and we got this assembled and a phylogeny run.

The results firmly suggest transmission in Washington from WA1 to this this current case, which I'm calling WA2. See attached figure. I believe there has been transmission in the Snohomish Area since the arrival of the first case. This can't tell us the route, but is strongly indicative (alongside location proximity).

Happy to address questions. I'll be getting this up on GISAID tonight.

Greg: Is it okay to name this USA/WA2/2020, with the expectation that the CDC will name it the same thing when they've done their sequencing (good to have the same strain name so there's not confusion).

- Trevor

<wa2.png>

From: Pillai, Satish K. (CDC/DDID/NCEZID/DPEI)
Sent: Saturday, February 29, 2020 4:03 PM PST
To: Lofy, Kathy KL (CDC doh.wa.gov); Knutson, Donna (CDC/DDNID/NCEH/OD); Duchin, Jeff
CC: Patel, Anita (CDC/DDID/NCIRD/OD); Pietz, Harald (CDC/DDPHSIS/CPR/DSLR);
Jernigan, Daniel B. (CDC/DDID/NCIRD/ID)
Subject: RE: connection

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Hi Kathy,
I'm sorry for the apparent extra step, don't want to create extra work for you while you are dealing with all this – I looked up the ASPR REC in outlook: John Smart (206) 615-2506
Hope this helps,
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Cc: Patel, Anita (CDC/DDID/NCIRD/OD) <bop1@cdc.gov>; Pietz, Harald (CDC/DDPHSIS/CPR/DSLR) <hwp1@cdc.gov>; Jernigan, Daniel B. (CDC/DDID/NCIRD/ID) <dbj0@cdc.gov>
Subject: RE: connection

I'm not sure how to request this support. Who should I request it from?

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Subject: Re: connection

Yes - they are expecting a call from the state through the rec and they will entertain assisting.

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Subject: RE: connection

Plus Jeff –
Donna, any word from ASPR?
Thanks,
satish

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Subject: connection

Hi Donna –

Including Kathy (State Health Officer, WA) – she and her colleagues in King County asked about surge care staff for the SNF, given that 10% of staff are with respiratory illness. We thought maybe there is an opportunity for DMAT support here, and wanted to connect you with Kathy. Wonder if that is a question for John Smart who is the ASPR assignee in Region X – but defer to you on routing. Including IM leadership, SCTF leadership here as well. CDC will be supporting with IPC, worker safety, epi, and communications safety.

Thanks,
satish

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Tuesday, March 3, 2020 9:14 PM PST
To: Duchin, Jeff
Subject: FW: Need Info ASAP

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Jeff, the BLUF summary/talking points.

From: Haynes, Benjamin (CDC/OD/OADC) <fxq2@cdc.gov>
Sent: Tuesday, March 3, 2020 9:09 PM
To: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: RE: Need Info ASAP

If that's too brief, please let me know.

State of the Outbreak

- King County is reporting 21 cases and 8 deaths. [Need final was 30 cases, 8 deaths at 6pm 3/3]
- The majority of our confirmed cases are associated with one large cluster, and our teams are still investigating to make those connections.
- There are a number [7] of area hospitals with confirmed cases in addition to the Skilled Nursing Facility.
- Compounding this challenge is the number of healthcare workers exposed to illness. We estimate 600-700 exposed HCWs.
- Health care facilities are confronted with significant challenges with assessing personnel and staffing issues; Personal Protective Equipment; and providing care for patients while ensuring the safety of the frontline health care workers.

Background Info

Epidemiology

- Of the 21 cases reported on 3/3 morning:
 - 16 may be part of one large cluster. This large cluster involves the Life Care LTCF AND the dialysis facility where one Life Care patient received dialysis.
 - The CDC epi team has been investigating the other 5 cases. We believe that some of these people too may be connected to the larger cluster but are still doing work to sort that out. Briefly:
 - 1 person: Person who works for Emerald City Movers and worked for an unknown number of days while symptomatic. Some of his contacts are ill
 - 2 people: Person who frequently goes dancing in Kirkland + his wife

- 1 person: Contractor from Q Analysts to FB. Q analysts is Headquartered in Kirkland. It is not known how much time he spent in Kirkland before illness onset. His family thinks though that he got exposed by a FB co-worker who was sick.
- 1 person: Unknown connection to the other cases. But he works at Amazon and apparently attended a FB party the day of illness onset
- We can speak to the number of exposure locations of 8 of the known cases.
 - 16 locations. The details are: Bartending at Century Link Stadium this past week, middle school soccer game, home contacts for various patients, dialysis facility, visitors at Evergreen hospital, visitors at Valley Hospital + gatherings with friends, work at Facebook, Target grocery run, work at Amazon
- Close contacts for 7 people: ~75 (best guess because people were potentially exposed at large gatherings soccer game). We do not know the number of people that the woman who bartended this weekend at Century Link Stadium this past weekend may have exposed but presumably a large number of people to add to this number of 75.

Impact on Health care system

- 7 acute care hospitals with confirmed patients
 - Estimated 600-700 exposed healthcare workers (HCWs); the burden of assessing risk of HCW exposure, tracking symptoms, and furlough of personnel is very large
 - Many hospitals faced with choice of closing units or services versus letting exposed personnel continue to work with close monitoring for developing and precautions
 - One hospital narrowly avoiding closure based on staffing shortages due to furlough of healthcare workers
 - Currently 50-70 exposed HCWs with symptoms consistent with COVID-19, under evaluation
- Single long-term care facility involved in cluster
 - 55 of 179 workers exposed and under quarantine or isolation, testing pending
 - Severe staffing challenges requiring borrowing staff from other facilities and corporate offices to maintain continuity of care
 - Ongoing PPE shortages
 - Disruption of routine diagnostic testing services
- Some Long term care facilities refusing to accept any patient from a hospital caring for COVID-19 patients, resulting in bed capacity issues

From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>

Sent: Tuesday, March 3, 2020 11:20 PM

To: Haynes, Benjamin (CDC/OD/OADC) <fxq2@cdc.gov>

Subject: Fwd: Need Info ASAP

But I will ask you to take a look at these. Jeff asked for a brief summary for the press conference but got a long summary. Could you make really brief bullets to put up front that he can use? Maybe leave the rest for background but he won't have time for all this.

Thanks

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From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>

Sent: Tuesday, March 3, 2020 7:53 PM

To: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP); Duchin, Jeff (CDC kingcounty.gov)

Cc: Kay, Meagan K. (CDC kingcounty.gov); Clark, Thomas A. (CDC/DDID/NCIRD/DVD)

Subject: RE: Need Info ASAP

Here is some info for #2 (sorry not as quantitative as I'd like)

- 7 acute care hospitals with confirmed patients
 - Estimated 600-700 exposed healthcare workers (HCWs); the burden of assessing risk of HCW exposure, tracking symptoms, and furlough of personnel is very large
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- Some Long term care facilities refusing to accept any patient from a hospital caring for COVID-19 patients, resulting in bed capacity issues

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>
Sent: Tuesday, March 3, 2020 10:16 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Subject: FW: Need Info ASAP

Hi Jeff,

The epi team has answers for 3 of your 4 questions. I defer to John and his infection control team for the answers to your question #2.

--Agam and the rest of the epi team

1. Of the 21 cases reported on 3/3 morning:
 - o 16 may be part of one large cluster. This large cluster involves the Life Care LTCF AND the dialysis facility where one Life Care patient received dialysis.
 - o The CDC epi team has been investigating the other 5 cases. We believe that some of these people too may be connected to the larger cluster but are still doing work to sort that out. Briefly:
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4. Close contacts for 7 people: ~75 (best guess because people were potentially exposed at large gatherings soccer game). We do not know the number of people that the woman who bartended this weekend at Century Link Stadium this past weekend may have exposed but presumably a large number of people to add to this number of 75.

--Agam

From: Duchin, Jeff <Jeff.Duchin@kingcounty.gov>
Sent: Tuesday, March 3, 2020 6:20 PM
To: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: Need Info ASAP

Hi, team leaders. We are planning on announcing new community mitigation guidance with Executive Constantine tomorrow. I'd like to have a succinct summary of the state of the outbreak to help me frame the reasons the new measures are necessary with as much as we can say about the following: .

1. Epi summary with our best estimate of the number of discrete/unrelated community transmission clusters.
2. Impact on HC system – number of involved facilities, other available metrics.
3. Number of exposure locations of known cases.
4. Estimated number of close contacts of confirmed cases.

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From: Clark, Thomas A. (CDC/DDID/NCIRD/DVD)
Sent: Tuesday, March 3, 2020 8:57 PM PST
To: Duchin, Jeff
Subject: FW: Need Info ASAP

[EXTERNAL Email Notice!] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Jeff, I asked Ben to add a concise summary of these responses below that you can have as a quick reference.

From: Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Sent: Tuesday, March 3, 2020 7:53 PM
To: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>; Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>
Subject: RE: Need Info ASAP

Here is some info for #2 (sorry not as quantitative as I'd like)

- 7 acute care hospitals with confirmed patients
 - Estimated 600-700 exposed healthcare workers (HCWs); the burden of assessing risk of HCW exposure, tracking symptoms, and furlough of personnel is very large
 - Many hospitals faced with choice of closing units or services versus letting exposed personnel continue to work with close monitoring for developing and precautions
 - One hospital narrowly avoiding closure based on staffing shortages due to furlough of healthcare workers
 - Currently 50-70 exposed HCWs with symptoms consistent with COVID-19, under evaluation
- Single long term care facility involved in cluster
 - 55 of 179 workers exposed and under quarantine or isolation, testing pending
 - Severe staffing challenges requiring borrowing staff from other facilities and corporate offices to maintain continuity of care
 - Ongoing PPE shortages
 - Disruption of routine diagnostic testing services
- Some Long term care facilities refusing to accept any patient from a hospital caring for COVID-19 patients, resulting in bed capacity issues

From: Rao, Agam K. (CDC/DDID/NCEZID/DHCPP) <ige4@cdc.gov>
Sent: Tuesday, March 3, 2020 10:16 PM
To: Duchin, Jeff (CDC kingcounty.gov) <jeff.duchin@kingcounty.gov>
Cc: Kay, Meagan K. (CDC kingcounty.gov) <meagan.kay@kingcounty.gov>; Clark, Thomas A. (CDC/DDID/NCIRD/DVD) <tnc4@cdc.gov>; Jernigan, John A. (CDC/DDID/NCEZID/DHQP) <jqj9@cdc.gov>
Subject: FW: Need Info ASAP

Hi Jeff,

The epi team has answers for 3 of your 4 questions. I defer to John and his infection control team for the answers to your question #2.

--Agam and the rest of the epi team

1. Of the 21 cases reported on 3/3 morning:
 - 16 may be part of one large cluster. This large cluster involves the Life Care LTCF AND the dialysis facility where one Life Care patient received dialysis.
 - The CDC epi team has been investigating the other 5 cases. We believe that some of these people too may be connected to the larger cluster but are still doing work to sort that out. Briefly:
 - 1 person: Person who works for Emerald City Movers and worked for an unknown number of days while symptomatic. Some of his contacts are ill
 - 2 people: Person who frequently goes dancing in Kirkland + his wife
 - 1 person: Contractor from Q Analysts to FB. Q analysts is Headquartered in Kirkland. It is not known how much time he spent in Kirkland before illness onset. His family thinks though that he got exposed by a FB co-worker who was sick.
 - 1 person: Unknown connection to the other cases. But he works at Amazon and apparently attended a FB party the day of illness onset
3. We can speak to the number of exposure locations of 8 of the known cases.
 - 16 locations. The details are: Bartending at Century Link Stadium this past week, middle school soccer game, home contacts for various patients, dialysis facility, visitors at Evergreen hospital, visitors at Valley Hospital + gatherings with friends, work at Facebook, Target grocery run, work at Amazon
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From: Duchin, Jeff
Sent: Monday, March 2, 2020 5:01 AM PST
To: Jernigan, John A.
CC: Duchin, Jeff
Subject: Ppe
Attachments: WHO-2019-nCov-IPCPPE_use-2020.1-eng.pdf

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Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19)

Interim guidance
27 February 2020



Coronavirus disease 2019 (COVID-19), caused by the COVID-19 virus, was first detected in Wuhan, China, in December 2019. On 30 January 2020, the WHO Director-General declared that the current outbreak constituted a public health emergency of international concern.

This document summarizes WHO's recommendations for the rational use of personal protective equipment (PPE) in healthcare and community settings, as well as during the handling of cargo; in this context, PPE includes gloves, medical masks, goggles or a face shield, and gowns, as well as for specific procedures, respirators (i.e., N95 or FFP2 standard or equivalent) and aprons. This document is intended for those who are involved in distributing and managing PPE, as well as public health authorities and individuals in healthcare and community settings, and it aims to provide information about when PPE use is most appropriate.

WHO will continue to update these recommendations as new information becomes available.

Preventive measures for COVID-19 disease

Based on the available evidence, the COVID-19 virus is transmitted between people through close contact and droplets, not by airborne transmission. The people most at risk of infection are those who are in close contact with a COVID-19 patient or who care for COVID-19 patients.

Preventive and mitigation measures are key in both healthcare and community settings. The most effective preventive measures in the community include:

- performing hand hygiene frequently with an alcohol-based hand rub if your hands are not visibly dirty or with soap and water if hands are dirty;
- avoiding touching your eyes, nose and mouth;
- practicing respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue;
- wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask;
- maintaining social distance (a minimum of 1 m) from individuals with respiratory symptoms.

Additional precautions are required by healthcare workers to protect themselves and prevent transmission in the healthcare setting. Precautions to be implemented by healthcare workers caring for patients with COVID-19 disease include using

PPE appropriately; this involves selecting the proper PPE and being trained in how to put on, remove and dispose of it.

PPE is only one effective measure within a package that comprises administrative and environmental and engineering controls, as described in WHO's *Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care (I)*. These controls are summarized here.

- **Administrative controls** include ensuring the availability of resources for infection prevention and control measures, such as appropriate infrastructure, the development of clear infection prevention and control policies, facilitated access to laboratory testing, appropriate triage and placement of patients, adequate staff-to-patient ratios and training of staff.
- **Environmental and engineering controls** aim at reducing the spread of pathogens and reducing the contamination of surfaces and inanimate objects. They include providing adequate space to allow social distance of at least 1 m to be maintained between patients and between patients and healthcare workers and ensuring the availability of well-ventilated isolation rooms for patients with suspected or confirmed COVID-19 disease.

COVID-19 is a respiratory disease that is different from Ebola virus disease, which is transmitted through infected bodily fluids. Due to these differences in transmission, the PPE requirements for COVID-19 are different from those required for Ebola virus disease. Specifically, coveralls (sometimes called Ebola PPE) are not required when managing COVID-19 patients.

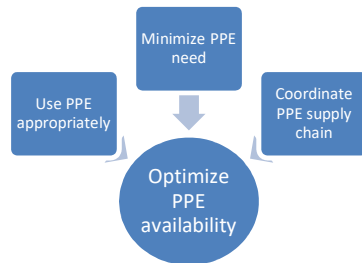
Disruptions in the global supply chain of PPE

The current global stockpile of PPE is insufficient, particularly for medical masks and respirators; the supply of gowns and goggles is soon expected to be insufficient also. Surging global demand – driven not only by the number of COVID-19 cases but also by misinformation, panic buying and stockpiling – will result in further shortages of PPE globally. The capacity to expand PPE production is limited, and the current demand for respirators and masks cannot be met, especially if the widespread, inappropriate use of PPE continues.

Recommendations for optimizing the availability of PPE.

In view of the global PPE shortage, the following strategies can facilitate optimal PPE availability (Fig. 1).

Fig. 1. Strategies to optimize the availability of personal protective equipment (PPE)



(1) Minimize the need for PPE

The following interventions can minimize the need for PPE while protecting healthcare workers and other individuals from exposure to the COVID-19 virus in healthcare settings.

- Consider using telemedicine to evaluate suspected cases of COVID-19 disease (2), thus minimizing the need for these individuals to go to healthcare facilities for evaluation.
- Use physical barriers to reduce exposure to the COVID-19 virus, such as glass or plastic windows. This approach can be implemented in areas of the healthcare setting where patients will first present, such as triage areas, the registration desk at the emergency department or at the pharmacy window where medication is collected.
- Restrict healthcare workers from entering the rooms of COVID-19 patients if they are not involved in direct care. Consider bundling activities to minimize the number of times a room is entered (e.g., check vital signs during medication administration or have food delivered by healthcare workers while they are performing other care) and plan which activities will be performed at the bedside.

Ideally, visitors will not be allowed but if this is not possible, restrict the number of visitors to areas where COVID-19 patients are being isolated; restrict the amount of time visitors are allowed to spend in the area; and provide clear instructions about how to put on and remove PPE and perform hand hygiene to ensure visitors avoid self-contamination (see <https://www.who.int/csr/resources/publications/putontakeoff/PPE/en/>).

(2) Ensure PPE use is rationalized and appropriate

PPE should be used based on the risk of exposure (e.g., type of activity) and the transmission dynamics of the pathogen (e.g., contact, droplet or aerosol). The overuse of PPE will have a further impact on supply shortages. Observing the following recommendations will ensure that the use of PPE is rationalized.

- The type of PPE used when caring for COVID-19 patients will vary according to the setting and type of personnel and activity (Table 1).
- Healthcare workers involved in the direct care of patients should use the following PPE: gowns, gloves, medical mask and eye protection (goggles or face shield).
- Specifically, for aerosol-generating procedures (e.g., tracheal intubation, non-invasive ventilation, tracheostomy, cardiopulmonary resuscitation, manual ventilation before intubation, bronchoscopy) healthcare workers should use respirators, eye protection, gloves and gowns; aprons should also be used if gowns are not fluid resistant (1).
- Respirators (e.g., N95, FFP2 or equivalent standard) have been used for an extended time during previous public health emergencies involving acute respiratory illness when PPE was in short supply (3). This refers to wearing the same respirator while caring for multiple patients who have the same diagnosis without removing it, and evidence indicates that respirators maintain their protection when used for extended periods. However, using one respirator for longer than 4 hours can lead to discomfort and should be avoided (4–6).
- Among the general public, persons with respiratory symptoms or those caring for COVID-19 patients at home should receive medical masks. For additional information, see *Home care for patients with suspected novel coronavirus (COVID-19) infection presenting with mild symptoms, and management of their contacts* (7).
- For asymptomatic individuals, wearing a mask of any type is not recommended. Wearing medical masks when they are not indicated may cause unnecessary cost and a procurement burden and create a false sense of security that can lead to the neglect of other essential preventive measures. For additional information, see *Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (2019-nCoV) outbreak* (8).

(3) Coordinate PPE supply chain management mechanisms.

The management of PPE should be coordinated through essential national and international supply chain management mechanisms that include but are not restricted to:

- using PPE forecasts that are based on rational quantification models to ensure the rationalization of requested supplies;
- monitoring and controlling PPE requests from countries and large responders;
- promoting the use of a centralized request management approach to avoid duplication of stock and ensuring strict adherence to essential stock management rules to limit wastage, overstock and stock ruptures;
- monitoring the end-to-end distribution of PPE;
- monitoring and controlling the distribution of PPE from medical facilities stores.

Handling cargo from affected countries

The rationalized use and distribution of PPE when handling cargo from and to countries affected by the COVID-19 outbreak includes following these recommendations.

- Wearing a mask of any type is not recommended when handling cargo from an affected country.
- Gloves are not required unless they are used for protection against mechanical hazards, such as may occur when manipulating rough surfaces.
- Importantly, the use of gloves does not replace the need for appropriate hand hygiene, which should be performed frequently, as described above.
- When disinfecting supplies or pallets, no additional PPE is required beyond what is routinely recommended. To date, there is no epidemiological information to suggest that contact with goods or products shipped from countries affected by the COVID-19 outbreak have been the source of COVID-19 disease in humans. WHO will continue to closely monitor the evolution of the COVID-19 outbreak and will update recommendations as needed.

Table 1. Recommended type of personal protective equipment (PPE) to be used in the context of COVID-19 disease, according to the setting, personnel and type of activity^a

Setting	Target personnel or patients	Activity	Type of PPE or procedure
Healthcare facilities			
Inpatient facilities			
Patient room	Healthcare workers	Providing direct care to COVID-19 patients.	Medical mask Gown Gloves Eye protection (goggles or face shield).
		Aerosol-generating procedures performed on COVID-19 patients.	Respirator N95 or FFP2 standard, or equivalent. Gown Gloves Eye protection Apron
	Cleaners	Entering the room of COVID-19 patients.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
	Visitors ^b	Entering the room of a COVID-19 patient	Medical mask Gown Gloves
Other areas of patient transit (e.g., wards, corridors).	All staff, including healthcare workers.	Any activity that does not involve contact with COVID-19 patients.	No PPE required
Triage	Healthcare workers	Preliminary screening not involving direct contact ^c .	Maintain spatial distance of at least 1 m. No PPE required
	Patients with respiratory symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if tolerated by patient.
	Patients without respiratory symptoms.	Any	No PPE required
Laboratory	Lab technician	Manipulation of respiratory samples.	Medical mask Gown Gloves Eye protection (if risk of splash)
Administrative areas	All staff, including healthcare workers.	Administrative tasks that do not involve contact with COVID-19 patients.	No PPE required

Outpatient facilities			
Consultation room	Healthcare workers	Physical examination of patient with respiratory symptoms.	Medical mask Gown Gloves Eye protection
	Healthcare workers	Physical examination of patients without respiratory symptoms.	PPE according to standard precautions and risk assessment.
	Patients with respiratory symptoms.	Any	Provide medical mask if tolerated.
	Patients without respiratory symptoms.	Any	No PPE required
	Cleaners	After and between consultations with patients with respiratory symptoms.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Waiting room	Patients with respiratory symptoms.	Any	Provide medical mask if tolerated. Immediately move the patient to an isolation room or separate area away from others; if this is not feasible, ensure spatial distance of at least 1 m from other patients.
	Patients without respiratory symptoms.	Any	No PPE required
Administrative areas	All staff, including healthcare workers.	Administrative tasks	No PPE required
Triage	Healthcare workers	Preliminary screening not involving direct contact ^c	Maintain spatial distance of at least 1 m. No PPE required
	Patients with respiratory symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if tolerated.
	Patients without respiratory symptoms.	Any	No PPE required
Community			
Home	Patients with respiratory symptoms.	Any	Maintain spatial distance of at least 1 m. Provide medical mask if tolerated, except when sleeping.
	Caregiver	Entering the patient's room, but not providing direct care or assistance.	Medical mask
	Caregiver	Providing direct care or when handling stool, urine or waste from COVID-19 patient being cared for at home.	Gloves Medical mask Apron (if risk of splash)
	Healthcare workers	Providing direct care or assistance to a COVID-19 patient at home	Medical mask Gown Gloves Eye protection
Public areas (e.g., schools, shopping malls, train stations).	Individuals without respiratory symptoms	Any	No PPE required

Points of entry			
Administrative areas	All staff	Any	No PPE required
Screening area	Staff	First screening (temperature measurement) not involving direct contact ^c .	Maintain spatial distance of at least 1 m. No PPE required
	Staff	Second screening (i.e., interviewing passengers with fever for clinical symptoms suggestive of COVID-19 disease and travel history).	Medical mask Gloves
	Cleaners	Cleaning the area where passengers with fever are being screened.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Temporary isolation area	Staff	Entering the isolation area, but not providing direct assistance.	Maintain spatial distance of at least 1 m. Medical mask Gloves
	Staff, healthcare workers	Assisting passenger being transported to a healthcare facility.	Medical mask Gown Gloves Eye protection
	Cleaners	Cleaning isolation area	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes
Ambulance or transfer vehicle	Healthcare workers	Transporting suspected COVID-19 patients to the referral healthcare facility.	Medical mask Gowns Gloves Eye protection
	Driver	Involved only in driving the patient with suspected COVID-19 disease and the driver's compartment is separated from the COVID-19 patient.	Maintain spatial distance of at least 1 m. No PPE required
		Assisting with loading or unloading patient with suspected COVID-19 disease.	Medical mask Gowns Gloves Eye protection
		No direct contact with patient with suspected COVID-19, but no separation between driver's and patient's compartments.	Medical mask
	Patient with suspected COVID-19 disease.	Transport to the referral healthcare facility.	Medical mask if tolerated
	Cleaners	Cleaning after and between transport of patients with suspected COVID-19 disease to the referral healthcare facility.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash from organic material or chemicals). Boots or closed work shoes

Special considerations for rapid response teams assisting with public health investigations ^d			
Community			
Anywhere	Rapid response team investigators.	Interview suspected or confirmed COVID-19 patients or their contacts.	No PPE if done remotely (e.g., by telephone or video conference). Remote interview is the preferred method.
		In-person interview of suspected or confirmed COVID-19 patients without direct contact.	Medical mask Maintain spatial distance of at least 1 m. The interview should be conducted outside the house or outdoors, and confirmed or suspected COVID-19 patients should wear a medical mask if tolerated.
		In-person interview with asymptomatic contacts of COVID-19 patients.	Maintain spatial distance of at least 1 m. No PPE required The interview should be performed outside the house or outdoors. If it is necessary to enter the household environment, use a thermal imaging camera to confirm that the individual does not have a fever, maintain spatial distance of at least 1 m and do not touch anything in the household environment.

^a In addition to using the appropriate PPE, frequent hand hygiene and respiratory hygiene should always be performed. PPE should be discarded in an appropriate waste container after use, and hand hygiene should be performed before putting on and after taking off PPE.

^b The number of visitors should be restricted. If visitors must enter a COVID-19 patient's room, they should be provided with clear instructions about how to put on and remove PPE and about performing hand hygiene before putting on and after removing PPE; this should be supervised by a healthcare worker.

^c This category includes the use of no-touch thermometers, thermal imaging cameras, and limited observation and questioning, all while maintaining a spatial distance of at least 1 m.

^d All rapid response team members must be trained in performing hand hygiene and how to put on and remove PPE to avoid self-contamination.

For PPE specifications, refer to WHO's novel coronavirus (COVID-19) disease commodity packages at <https://www.who.int/emergencies/what-we-do/prevention-readiness/disease-commodity-packages/dcp-ncov.pdf?ua=1>.

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WHO reference number: [WHO/2019-nCov/IPC PPE_use/2020.1](https://www.who.int/publications-detail/WHO/2019-nCov/IPC_PPE_use/2020.1)