Healthcare Leadership Listening Session

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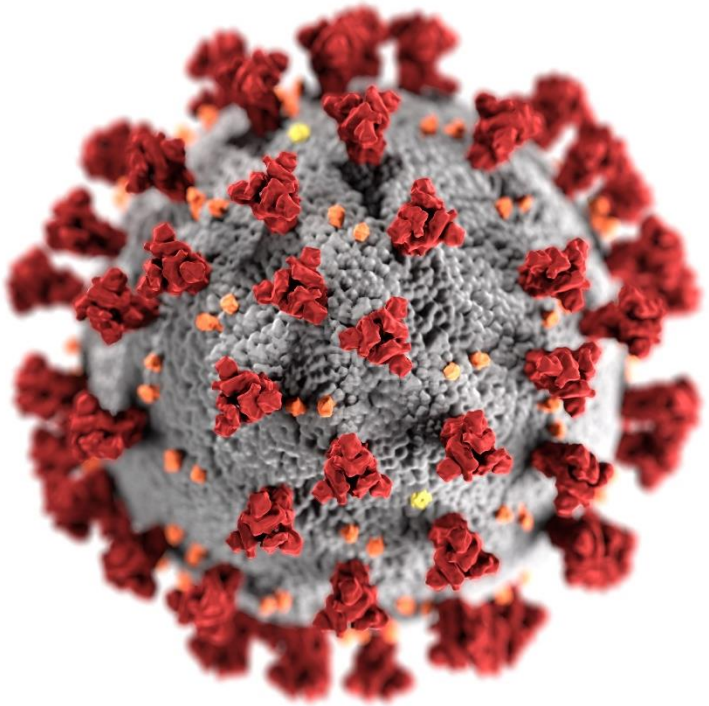
Deputy Incident Manager (a)

CDC COVID-19 Response

Centers for Disease Control and Prevention

February 19, 2020



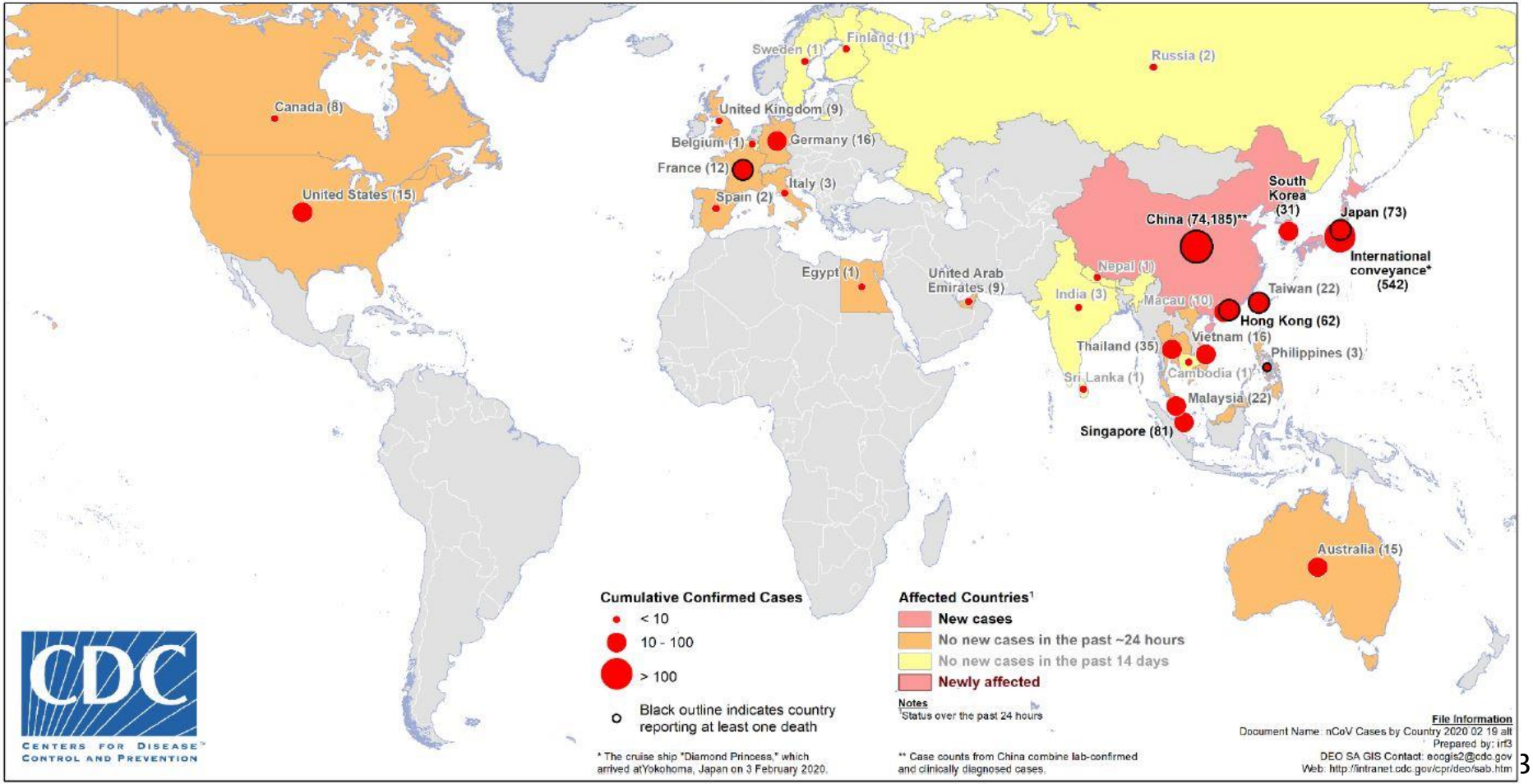
For more information: **www.cdc.gov/COVID19**

Coronavirus Disease 2019 (COVID-19)

- Much is unknown about COVID-19
- Spreads from person-to-person and causes severe disease and death
  - Respiratory droplets by coughing or sneezing
  - Close personal contact, such as touching or shaking hands

Coronavirus Disease-2019, Confirmed Cases** by Location

Data as of 19 February 2020 12:00 AM EST



Situation Overview

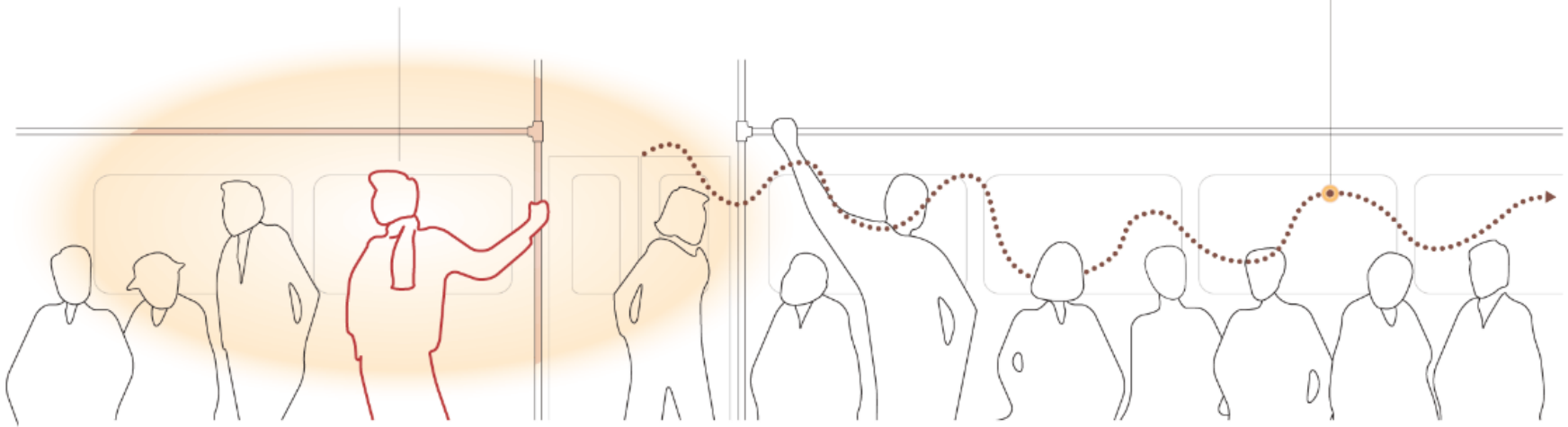
- To date, 28 international locations (in addition to the U.S.) have reported confirmed cases of COVID-19 infection.
- Two instances of person-to-person spread with this virus in the U.S. have been detected.
  - Both cases after close, prolonged contact with a returned traveler from Wuhan.
- While the 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.

Virus Characteristics

How far viruses travel

Coronaviruses like the **Wuhan virus** can travel only about six feet from the infected person. It's unknown how long they live on surfaces.

Some other viruses, like **measles**, can travel up to 100 feet and stay alive on surfaces for hours.

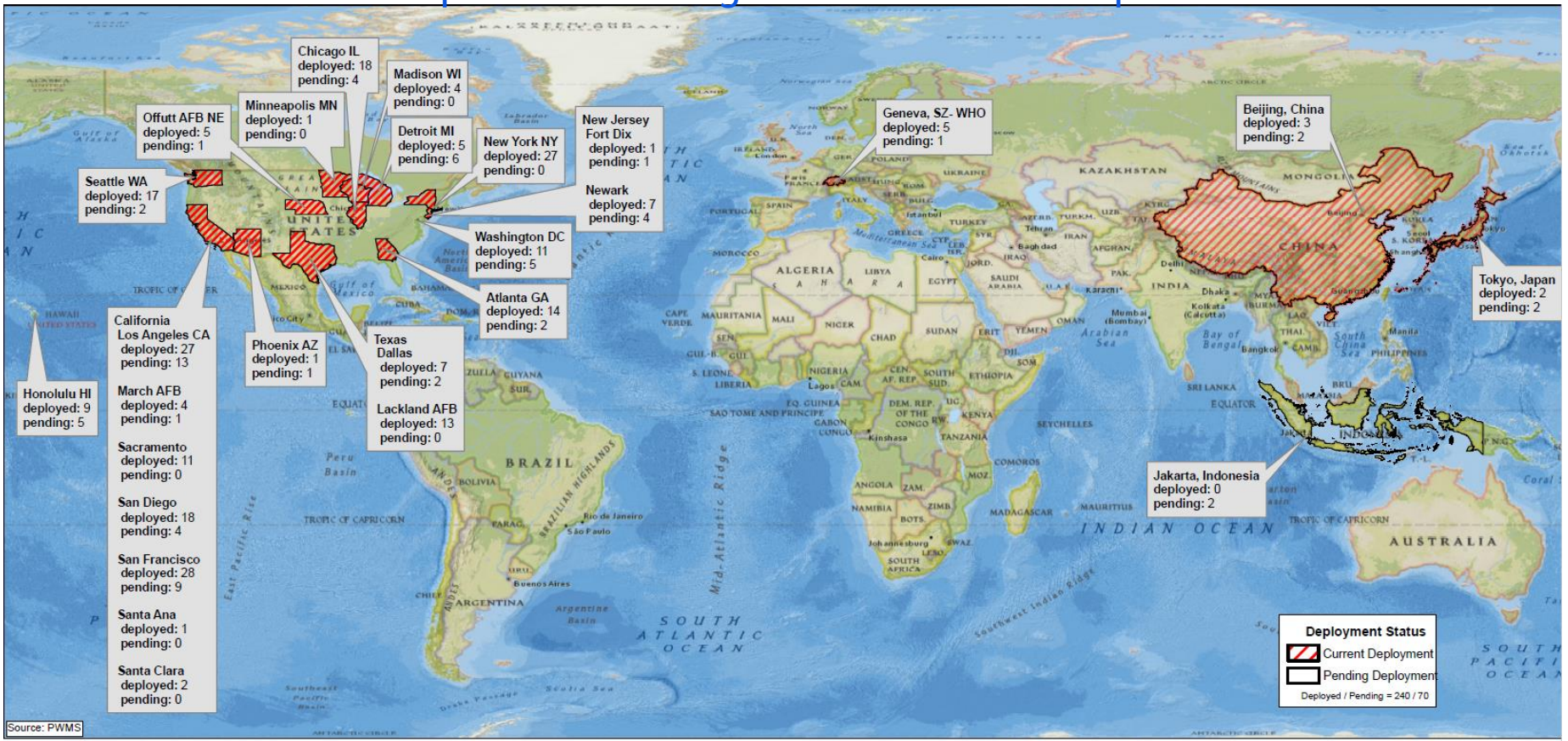


New York Times, January 31, 2020

CDC Response

- CDC established a COVID-19 Incident Management System on January 7, 2020.
- Through in-country teams and coordination with WHO, CDC is monitoring and engaged in international efforts of this response.
  - Assisting international partners with response effort
  - Working with ASPR on the return of Americans overseas
- CDC is coordinating closely with state and local partners on identifying cases early, conducting case investigations, and learning about the virology, transmission, and clinical spectrum for this disease.

CDC Responders Working on the COVID-19 Response



For Internal/Official Use Only FIUO/FOUO----Sensitive But Unclassified (SBU)-NOT FOR DISTRIBUTION

MXD Name: COVID-19 Deployments 2020-February-17; Prepared 2/14/2020: 6:29:06 PM; Document Path: \\cdc.gov\project\NMTC-T100-SRV1\Emergency Operations\SA\2020 Novel Coronavirus Response\GIS\MXD\Deployments\COVID-19 Deployments 2020-February-17.mxd

CDC Response

- Over the coming days and weeks, state and local public health departments will begin to test for COVID-19 in their laboratories.
- CDC has developed, released and is socializing guidance in various areas for healthcare, public health and the public.
  - This includes topics such as how to care of patients, infection control, patient monitor and movement, hospital, community, schools, and business preparedness and response, conservation strategies for respirators
- Working closely with healthcare system (hospitals, clinics, pharmacies, telehealth) to develop solutions for surge to meet potential wider spread of disease.

CDC Response

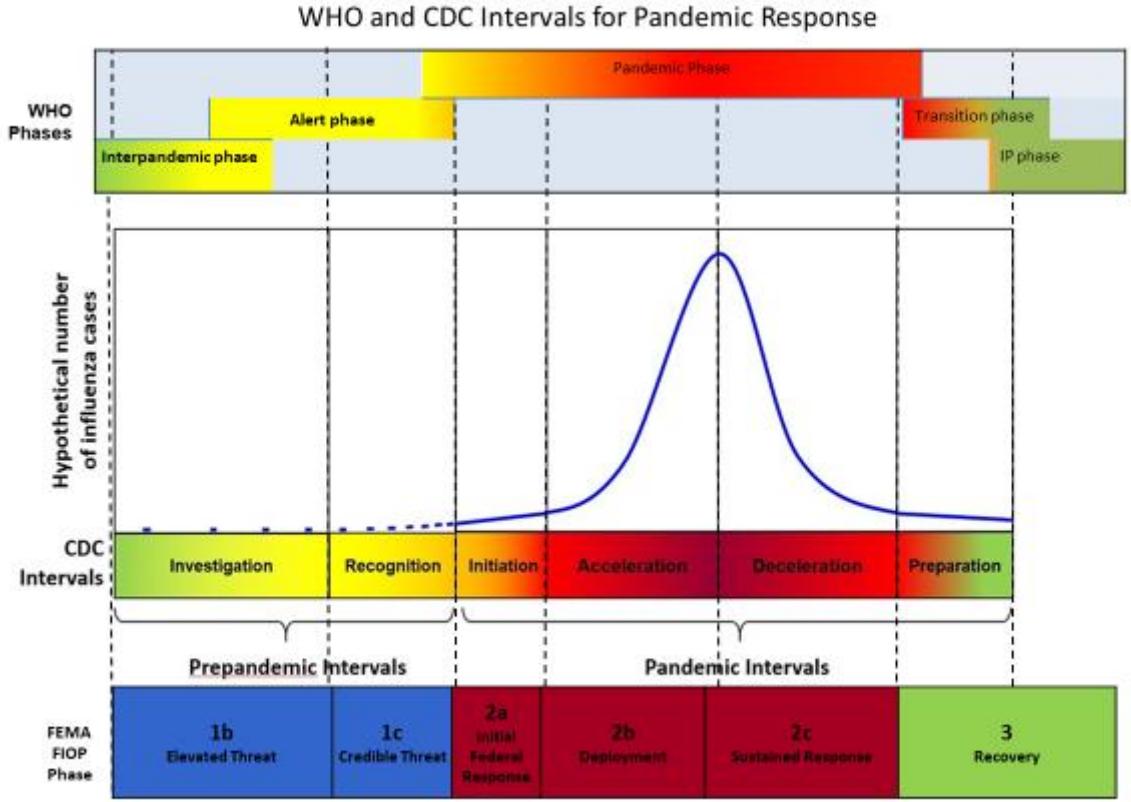
- Refining, socializing, and implementing mitigation strategies for the public and communities to meet response needs
- Monitoring supply chain through partnerships with healthcare systems, GPOs, distributor and manufacturers in collaboration with HHS partners
- Clinical consultation of care of US patients
- Use of technology solutions:
  - Assisting SLTT and federal partners with monitoring high risk contacts through text platforms, support and developing self checker, HealthPulse situation awareness platforms

Healthcare Systems Coordination Efforts

- Regularly engaging healthcare systems to:
  - Understand the current and future impact of COVID-19 on their healthcare system
  - Understand strategies for mitigation of surge among healthcare system partners
  - Elicit feedback on gaps or areas for improvement of CDC guidance
  - Address specific items relevant to special partners
- Hospitals, doctors offices, clinics, pharmacies, payers, professional organizations

What’s Next - Planning for Mitigation

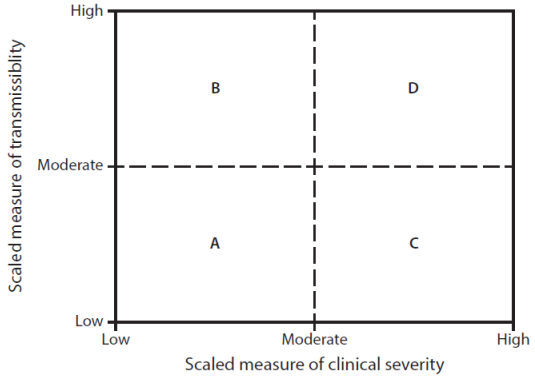
Planning: Pandemic phases, intervals and triggers



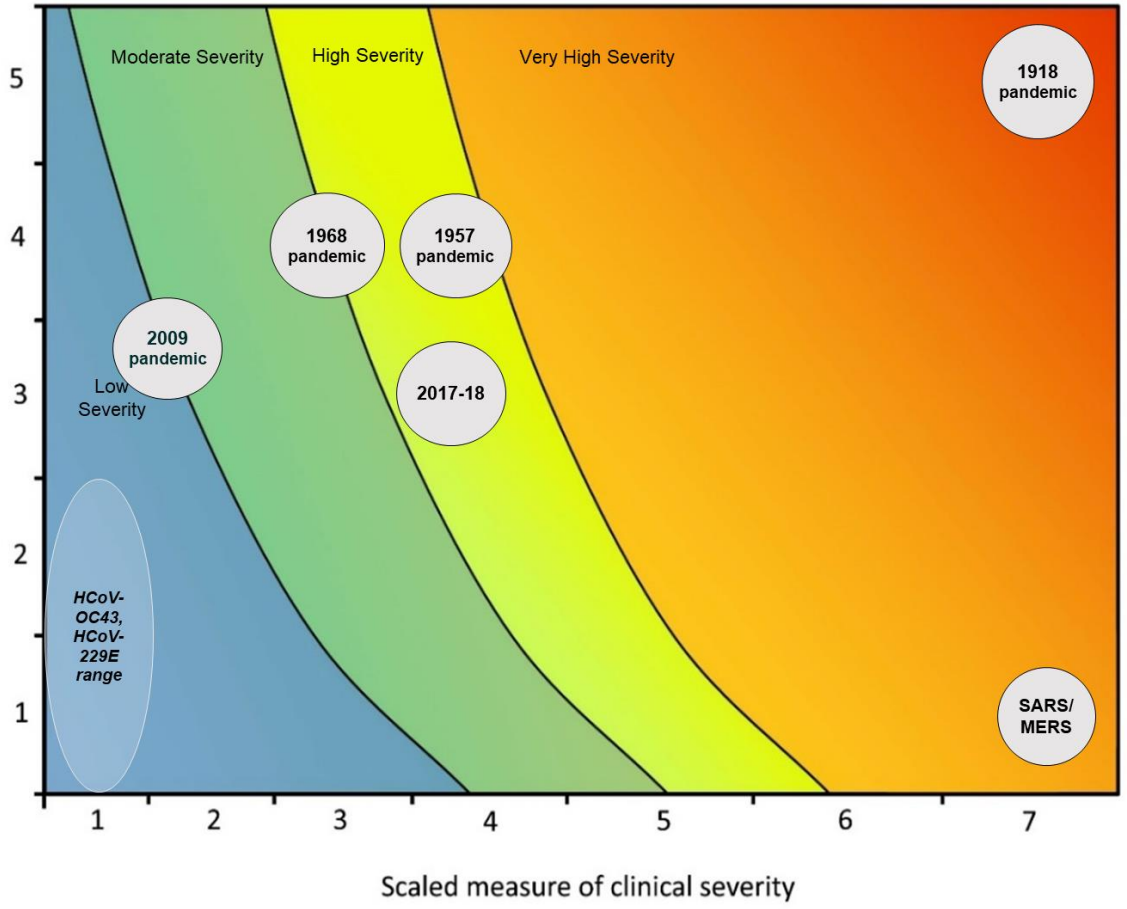
Adapted from: MMWR Recomm Rep. 2014 Sep 26;63(RR-06):1-18. **Updated preparedness and response framework for influenza pandemics.** Holloway R et al

CDC Pandemic Severity Assessment Framework

FIGURE 3. Pandemic Severity Assessment Framework for the initial assessment of the potential impact of an influenza pandemic

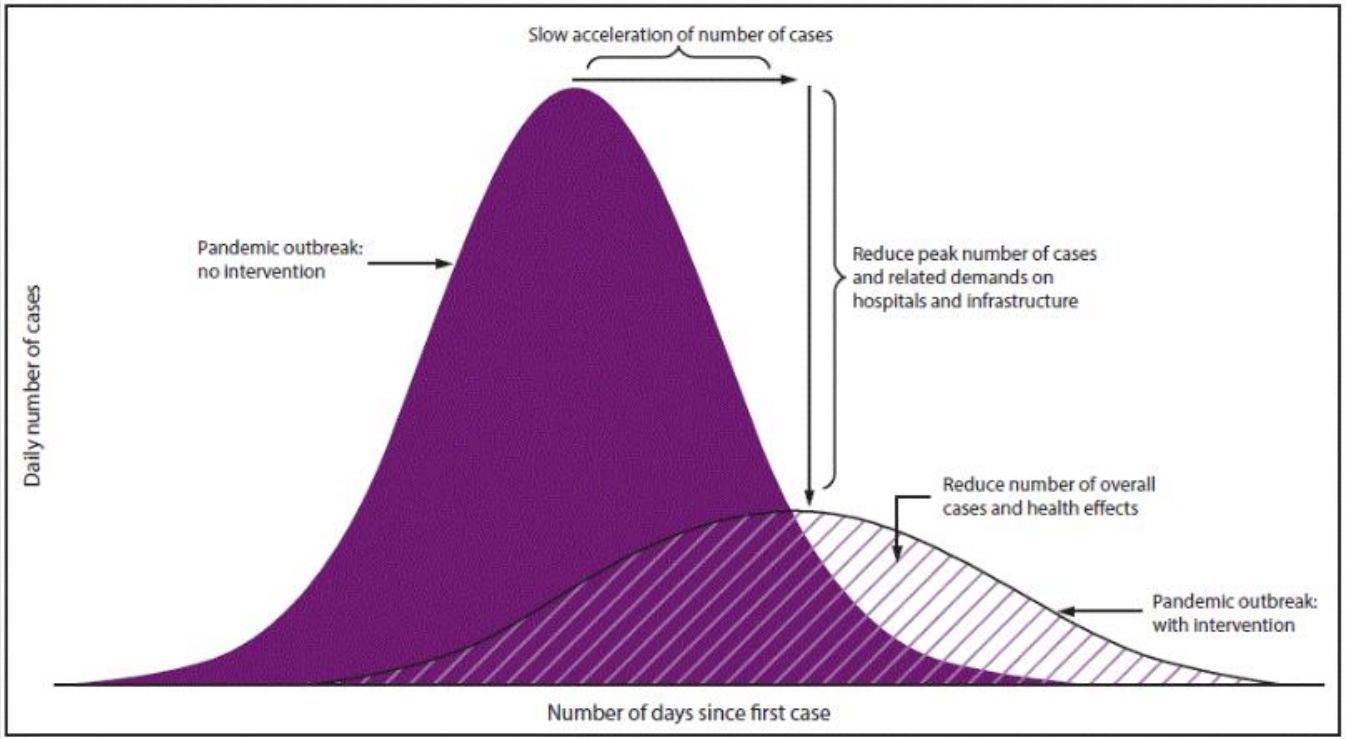


Source: Reed C, Biggerstaff M, Finelli L, et al. Novel framework for assessing epidemiologic effects of influenza epidemics and pandemics. Emerg Infect Dis 2013;19:85–91.



Goal of Non Pharmaceutical Interventions (NPIs) is to Delay and Blunt the Epi-curve

NPIs are actions that **people** and **communities** can take to slow influenza transmission. NPI are often referred to as Community Mitigation



Source: Adapted from: CDC. Interim pre-pandemic planning guidance: community strategy for pandemic influenza mitigation in the United States—early, targeted, layered use of nonpharmaceutical interventions. Atlanta, GA: US Department of Health and Human Services, CDC; 2007. https://stacks.cdc.gov/view/cdc/11425.

How do we use NPIs

- Actions that are needed will shift as communities move from sporadic disease to widespread community outbreaks.
  - Actions depend on timing of community detection, what we know about transmission, severity of illness, identify most vulnerable populations

- Goals of actions are to delay and blunt impact of disease:
  - Limit onward transmission
  - Limit exposure
  - Once exposed, direct people to appropriate care

Starting with a strong foundation: Planning materials already created and being converted into COVID-19 resources

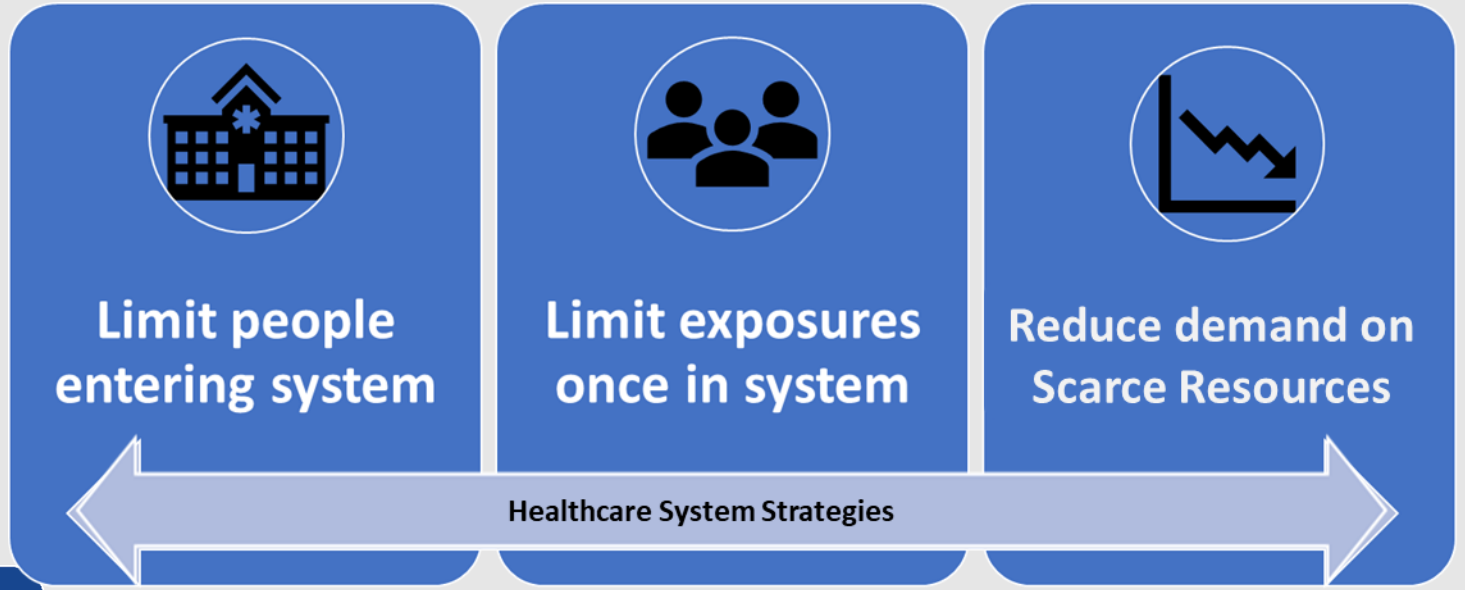
or households, schools, workplaces, mass gatherings, community-and faith-based organizations, & health communicators. Available at https://www.cdc.gov/nonpharmaceutical-interventions/tools-resources/planning-guidance-checklists.html

What are our Levers? *Examples* of what we can do now vs what we can do next, add on measures

Strategies	No disease	Sporadic Disease	Widespread Disease (mild)	Widespread Disease (severe)
Personal	Basic respiratory hygiene, hand hygiene	+ Facemasks	+ Isolation, improvised face masks	+ Quarantine
Community		+Social distancing, online education, telework	+Cancel event, quarantine for exposed school age kids, home delivery (goods, groceries, meds)	+School closures, cancel or postpone events, temporary business closures
Healthcare	Standard isolation and infection control	Standard isolation and infection control, conserving supplies, training healthcare workforce , home care for mild disease	+Triage, self checkers, telemedicine, call ahead policies , alternative infection control practices and standards of care	National triage lines to direct people care, crisis standards of care, reserve hospitals only for those that are most ill
Environmental	Disinfecting			

Actions change based on how severe outbreak is in a community

Healthcare System (HCS) Mitigation Strategies (*examples*)



Healthcare System (HCS) Mitigation Strategies (*examples*)

	Sporadic disease or Issues with ability to provide care (space, staff, stuff)	Mild Disease	Severe Disease
 Limit people entering system	• Home care for mild cases • Monitoring and movement guidance • Limit number of visitors in patient room	• Self-assessment tools • Telemedicine for triage • Augment use of non-acute care sites (urgent/retail care)	• Reserve hospitals only for those who are ill
 Limit exposures once in system	• Engineering controls (physical barriers) • Exclude non-essential HCP • Monitoring and movement guidance	• Cohorting patients • Assigning designated providers • Limit HCP/patient interactions (e.g., video when feasible)	
 Reduce demand on Scarce Resources	• Limiting respirators during training and fit testing • Clarify products needed • Communications	• Alternative product use • Extended use and/or limited reuse • Staffing strategies (identifying specific care teams)	• Prioritize use based on exposure risk

Moving towards alternative standards of care

Medical Call Centers/Nurse Advice Lines

Protocols used by 95% of medical call centers in North America are aligned with CDC guidance

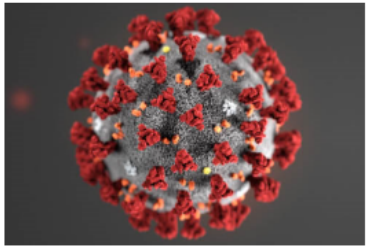
IN DEVELOPMENT

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Coronavirus Disease 2019 (COVID-19) Self-Checker

Coronavirus Disease 2019 (COVID-19) Self-Checker

- The purpose of this self-checker is to help you understand whether you may have been exposed to the Coronavirus Disease 2019 (COVID-19)
- If you have been exposed to Coronavirus Disease 2019 (COVID-19), this self-checker can help you make decisions about whether and where to seek medical care or further evaluation
- This self-checker does not provide a diagnosis or confirm an illness with Coronavirus Disease 2019 (COVID-19)



If you or someone around you is experiencing a medical emergency, call 9-1-1 immediately. Do not complete this self-checker.

For more information on the Coronavirus Disease 2019 (COVID-19) see: https://www.cdc.gov/coronavirus/2019-ncov/index.html

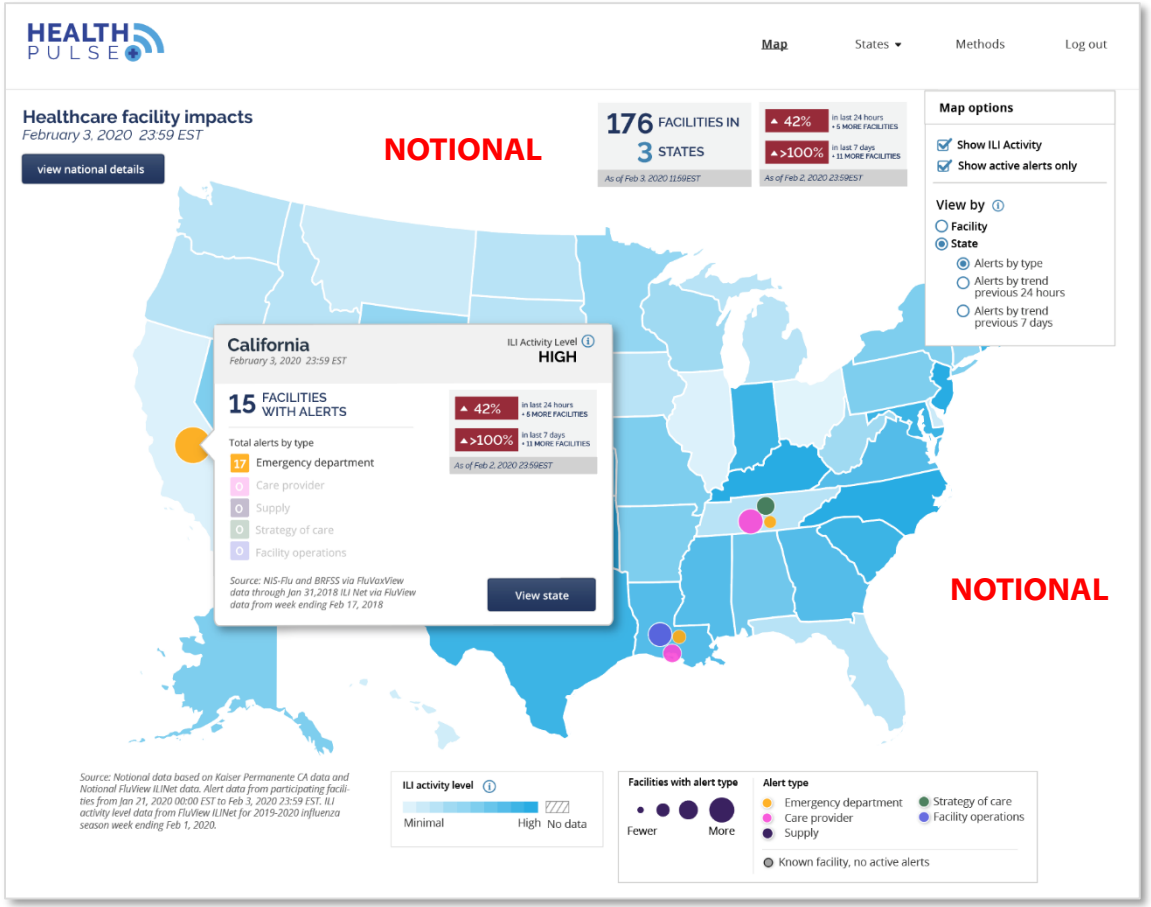
Start Self-Checker

HEALTH PULSE

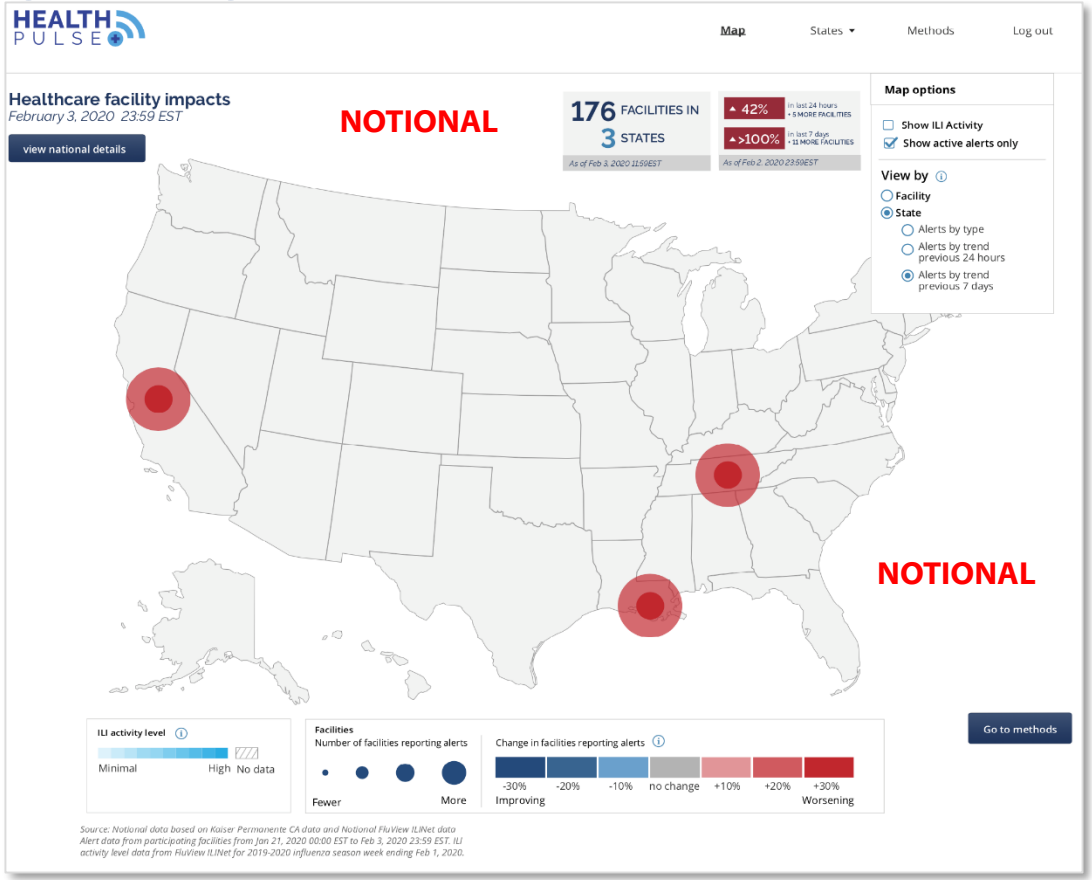
Outreach to Large Healthcare Systems

- Engaged with multiple hospital/healthcare systems
- Aim to create sentinel system
- Qualitative information– do not need quantitative (e.g., bed counts)
- Multiple data platforms, and metrics

Quick access to state-level information

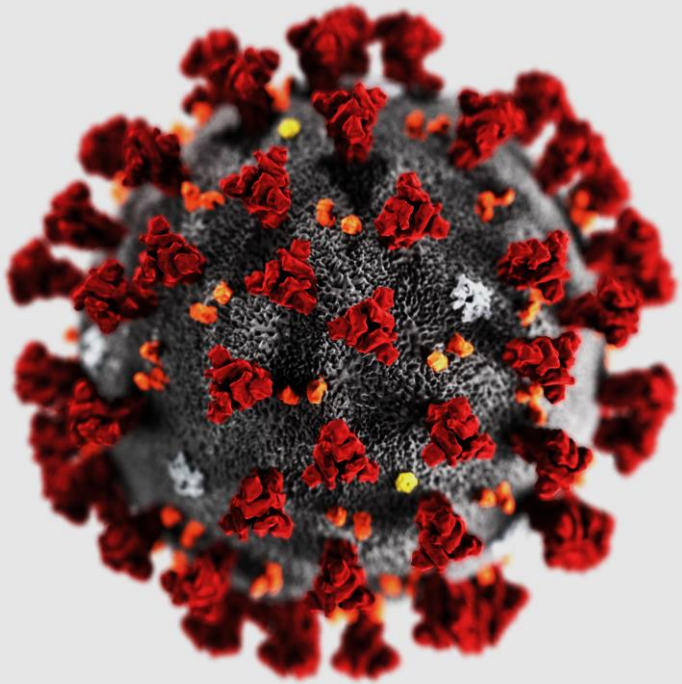


Are things getting better or worse?



Call to Action

- The success of response efforts now will determine what the coming days, weeks and months will bring here in the U.S.
- Ensuring continuity of healthcare services during this novel coronavirus outbreak is key component of the response
  - Save lives, protect patients, and effectively serve communities
- Need to plan now
- Response needs to be scalable, flexible and above all practical



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

Update on PPE Supply Chain

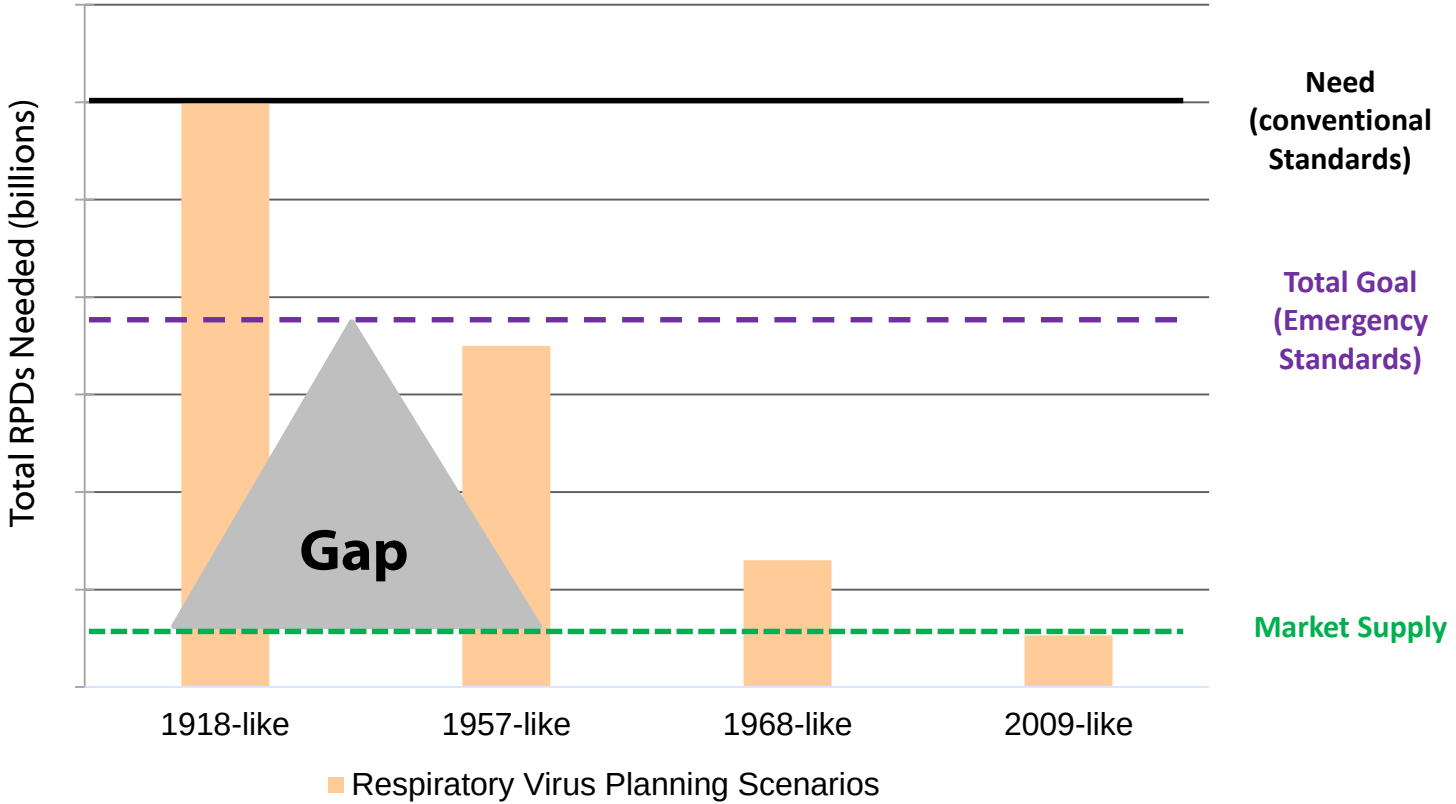
Actions and Strategies to Stop Spread of COVID-19

- The U.S. healthcare system responds to infectious disease threats every day.
- CDC's recommended actions and strategies to stop the spread of COVID-19 are **not new**. They work and most are not reliant on PPE.
  - Established infection control strategies, consistent with standard precautions.
- CDC's goal—provide sound infection prevention control recommendations that protect healthcare workers AND are feasible and acceptable to implement.

Number of respiratory protective devices needed exceeds most planning scenarios; need to address the gap–can't buy our way out

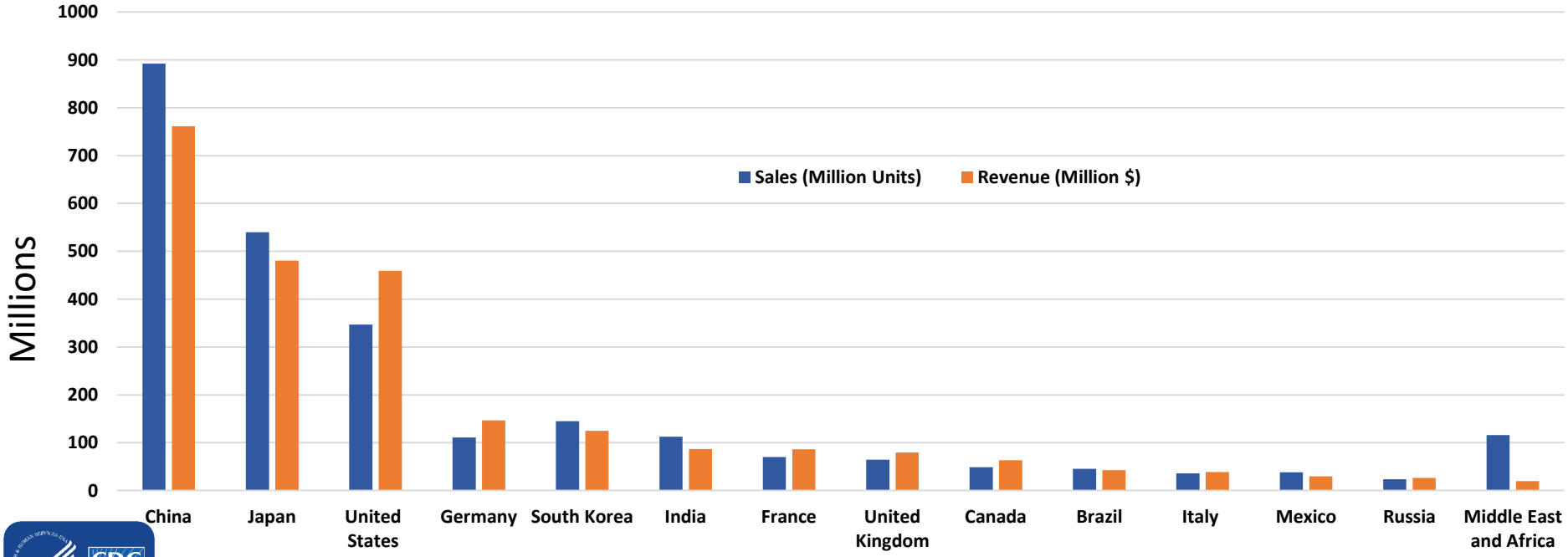
2019 Market:
- N95s: 346M
- Facemask: 540M

Planning Estimates:
- N95s: 3,506 M
- Facemask: 438 M
- Reusable RPDs: 1.62 M



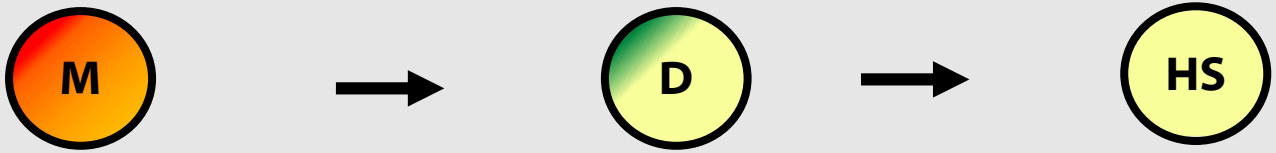
China, Japan, and US are the largest markets

Respirator Sales (Million Units) and Revenue (Million $) by Country, 2019*



*Global Infor Research, 2020

Estimated N95 Supply Status: As of 02/14/20*



Reports from Manufacturers (+60%)	Reports from Distributors (+70%)	Healthcare Systems

• Increase in orders
• Most are surging (lines, staffing); ramp up time needed, surge planning underway
• Allocation strategies to fill global orders
• Global market:
  ▪ Raw materials
  ▪ Manufacturing in countries with limited/restricted exports
	• Increase in orders
	• Allocation strategies
	  • % of customer orders (80%-120%)
	  • Limiting sales to atypical buyers and non- healthcare customers
		Major hospital systems reporting:
		• Increase in orders
		• Accelerated burn due to fit testing
		• Not receiving full orders, stockpiling
		• Able to maintain operations, supply is tight
		• Estimated 1-14 week supply in stockpiles
		Urgent Care (non-system)
		• Increase in orders
		Pharmacies
		• +60% of large chains unable to meet store level demands
		• Stockouts, delays in resupply

*Aggregate qualitative assessment

Healthcare Supply chain information now posted on CDC website

2019 Novel Coronavirus

CDC > 2019 Novel Coronavirus Home > Healthcare Professionals

- 2019 Novel Coronavirus Home
- 2019-nCoV Situation Summary
- About 2019-nCoV
- Information for Travelers
- Information for Businesses
- **Healthcare Professionals**
  - Evaluating and Reporting PUI
  - Interim Guidance for EMS
  - Infection Control
  - Clinical Care
  - Healthcare Personnel with Potential Exposure to 2019-nCoV
  - Disposition of Patients with 2019-nCoV
  - Preparedness Checklists
  - Implementing Home Care

Healthcare Supply of Personal Protective Equipment

On This Page

- Who needs PPE
- Who does not need PPE
- Manufacturers and Distributors
- Strategies for Optimizing Supply of N95 Respirators
- Frequently Asked Questions About Respirators and Their Use

CDC continues to monitor the 2019-nCoV situation in the United States and around the world. CDC has taken early and aggressive actions to prevent the spread of 2019-nCoV in the United States, through a combination of proven public health actions. At the same time, CDC is preparing for the possibility that the 2019-nCoV situation in the US could become more serious, with sustained community transmission, and is taking steps to make sure there are enough supplies and appropriate guidance to prevent spread of disease, especially among healthcare personnel caring for patients with 2019-nCoV.

Healthcare personnel can protect themselves when caring for patients by adhering to infection prevention and control practices, which includes the appropriate use of engineering controls, administrative controls, and personal protective equipment (PPE). CDC has issued guidance recommending the use of PPE for healthcare personnel caring for patients with confirmed or possible 2019-nCoV infection. Employers and healthcare personnel are reminded that PPE is only one aspect of safe care of patients with 2019-nCoV. For the general public, CDC does not recommend the use of facemasks or respirators. CDC guidance is based on what we know about 2019-nCoV and what we know about similar coronaviruses, like SARS and MERS.

CDC also understands the importance of providing guidance that healthcare facilities can implement, given supplies of PPE available. CDC communicates regularly with healthcare industry partners, as well as PPE manufacturers and distributors, to assess availability of PPE. At this time, some partners are reporting higher than usual demand for select N95 respirators and facemasks. If information about market availability changes, updates will be posted on this page.

Based on the current 2019-nCoV situation and availability of PPE, CDC has specific recommendations, summarized below. As we learn more about 2019-nCoV and as the needs of the response or availability of PPE within U.S. healthcare facilities changes, we will update our guidance.

Strategies for Optimizing the Supply of N95 Respirators

On This Page

This document offers guidance on how to optimize supplies of N95 filtering facepiece respirators (commonly called "N95 respirators") in healthcare settings in the face of potential ongoing 2019 Novel Coronavirus (2019-nCoV) transmission in the United States. The recommendations are intended for use by professionals who manage respiratory protection programs, occupational health services, and infection prevention programs in healthcare institutions to protect healthcare personnel (HCP) from job-related risks of exposure to infectious respiratory illnesses.

Controlling exposures to occupational hazards is a fundamental way to protect personnel. Traditionally, a hierarchy of controls approach has been used to achieve feasible and effective control. Some of the control measures may fall into multiple categories. It should also be emphasized that multiple control strategies can be implemented concurrently and or sequentially. This hierarchy can be represented as follows:

- Elimination
- Substitution
- Engineering controls
- Administrative controls
- Personal protective equipment (PPE)