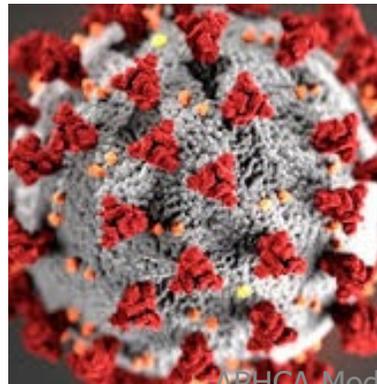




APHCA Emergency Preparedness Track Module #4

PANDEMIC PREPAREDNESS: Preparing for the COVID-19 SECOND WAVE



Connect Consulting Services
October 15, 2020



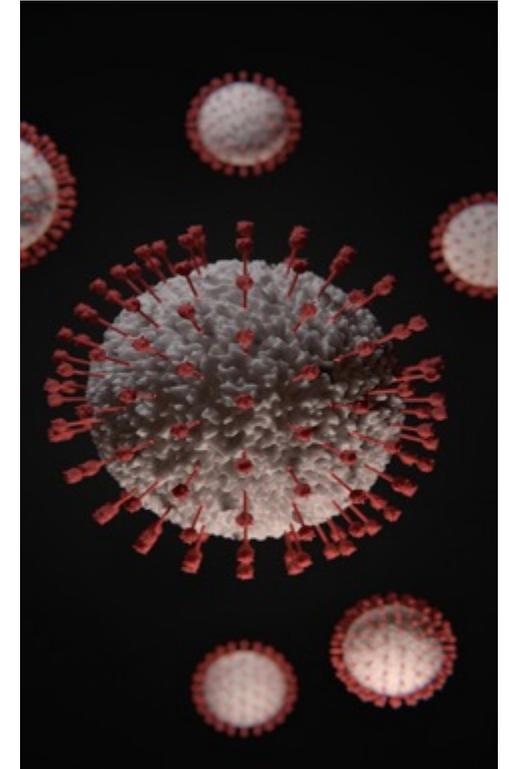
APHCA Emergency Preparedness Track Modules

- October 14,2020
 - #1- Emergency Preparedness 101
 - #2- CMS Emergency Preparedness Requirements and Incident Command System
 - #3 -How to Create an Emergency Preparedness Training and Exercise Program
- October 15,2020
 - #4- Pandemic Planning for the Next Wave of COVID-19
 - #5- COVID-19 Planning Tips and Health Center Lessons Learned
 - #6- APHCA CMS Emergency Preparedness Compliance Toolkit Review



Training Objectives

- 1) Review key infectious disease terminology
- 2) Review history of major pandemics
- 3) Review challenges healthcare can face in pandemics
- 4) Review best practices to prepare for pandemic response
- 5) Review steps to prepare for the “Next Waves” for the COVID-19 Pandemic
- 6) Best Practice Discussion – What ALPCA has done for COVID-19 Pandemic Response
- 7) Question and answers



Terminology for Infectious Disease

- **Agent:** A factor, such as a microorganism, chemical substance, or form of radiation, whose presence is essential for the occurrence of a disease.
- **Index case:** The first person infected with a pathogen known to health officials — often referred to as "patient zero."
- **Asymptomatic/Pre-Symptomatic:** A disease stage in which the infected individual does not and will not exhibit symptoms but is infectious and can transmit the disease.
- **Pathogen:** Anything that can produce disease. Typically the term is used to mean an infectious agent - a microorganism, such as a virus, bacterium, prion, or fungus that causes disease in its host.



Terminology for Infectious Disease (continued)

- **Herd immunity:** Herd immunity occurs when the vaccination of a significant portion of a population (or herd) provides a measure of protection for individuals who have not developed immunity. For contagious diseases that are transmitted from individual to individual, herd immunity theory proposes that chains of infection are likely to be disrupted when large numbers of a population are immune or less susceptible to the disease.
- **Zoonotic illness:** Any disease that spreads from animals — including insects — to people.



Terminology for Infectious Disease (continued)

- **Emerging illness/disease:** A disease that infects a particular regional population for the first time, or a disease that's been present at low levels in a region but then rapidly becomes more prevalent.
- **Outbreak:** Term used in epidemiology to describe an occurrence of disease greater than would otherwise be expected at a particular time and place. It may affect a small and localized group or impact upon thousands of people across an entire continent. Two linked cases of a rare infectious disease may be sufficient to constitute an outbreak.
- **Epidemic:** An increase in the number of cases of a disease in a particular geographic region exceeding the number typically experienced.
- **Pandemic:** An epidemic spanning many countries, regions or continents. The parameters of this definition are a bit amorphous and largely depend on the opinions of scientists and health officials using the term.



Terminology for Infectious Disease (continued)

- **Transmission routes:** Pathway of causative agents from a source to infection of a susceptible host:
 - **Airborne transmission:** Microbial aerosols are suspensions of particles (fluid or solid) in the air consisting partially or wholly of microorganisms. They may remain suspended in the air for prolonged periods of time (as opposite to droplets, that are too large in diameter and fall to the ground relatively fast). This transmission route works particularly efficient for viruses.
 - **Direct transmission:** Direct and immediate transfer of infectious agents to a susceptible host. This may be through direct contact such as touching, biting, kissing or sexual intercourse, or by the direct projection of droplet (droplet spread) spraying onto eyes, nose or mouth of other people.

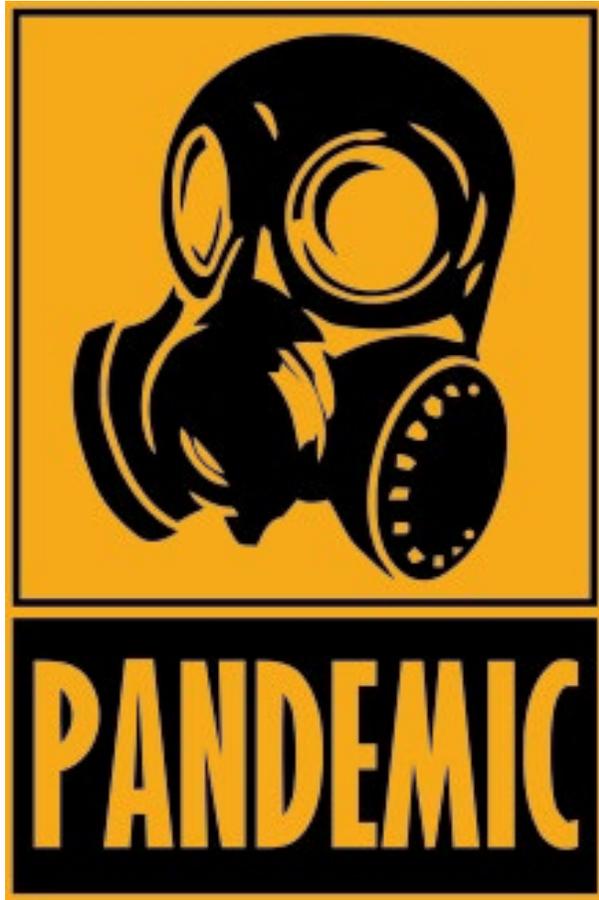


Terminology for Infectious Disease (continued)

- **Vertical transmission:** Specific form of direct transmission is that between mother and child during pregnancy or childbirth
- **Indirect transmission:** Transmission of infectious organisms from a source through **objects (vehicles, hard surfaces)** or **insects (vectors)**.
- **Vector-borne:** When a living creature, such as insects and other arthropods, transfer infectious agents to susceptible hosts, they act as 'vectors' of the infection.



Major Pandemics in History



- **ANTONINE PLAGUE (165 AD)**
 - Death Toll: 5 million
- **PLAGUE OF JUSTINIAN (541-542)** Bubonic Plague
 - Death Toll: 25 million
- **THE BLACK DEATH (1346-1353)** Bubonic Plague
 - Death Toll: 75 – 200 million
- **THIRD CHOLERA PANDEMIC (1852–1860)** Cholera
 - Death Toll: 1 million
- **FLU PANDEMIC (1889-1890)**
 - Death Toll: 1 million
- **SIXTH CHOLERA PANDEMIC (1910–1911)**
 - Death Toll: 800,000 +



Major Pandemics in History

- **1918 FLU PANDEMIC**

- Death Toll: 20 - 50 million
- Cause: Influenza (Avian H1N1)
- The 1918 influenza pandemic was the most severe pandemic in recent history. Although there is not universal consensus regarding where the virus originated, it spread worldwide during 1918-1919. In the United States, it was first identified in military personnel in spring 1918. It is estimated that about 500 million people or one-third of the world's population became infected with this virus. The number of deaths was estimated to be at least 50 million worldwide with about 675,000 occurring in the United States.



Major Pandemics in History

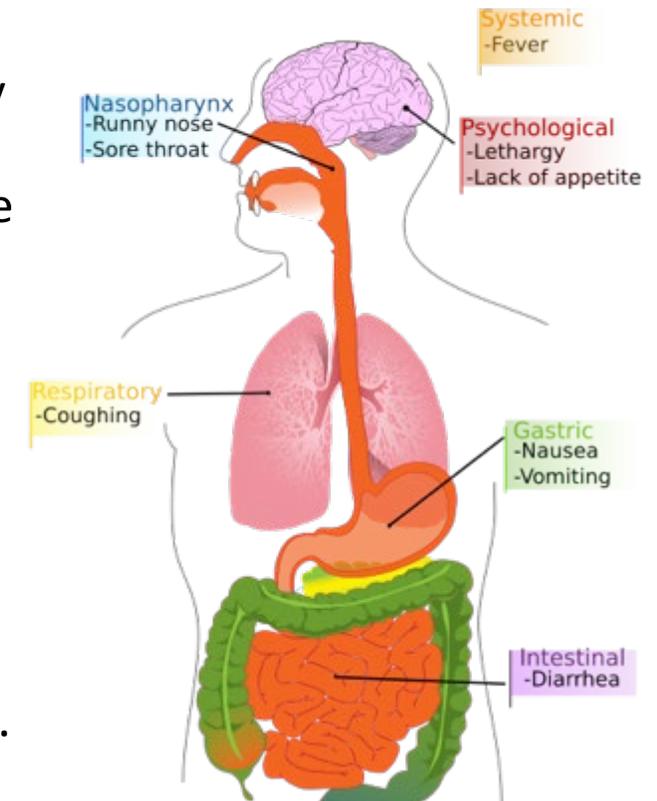
- **HIV/AIDS PANDEMIC (AT ITS PEAK, 2005-2012)**

- Death Toll: 36 million
- Cause: HIV/AIDS
- First identified in Democratic Republic of the Congo in 1976, HIV/AIDS has truly proven itself as a global pandemic, killing more than 36 million people since 1981. Currently there are between 31 and 35 million people living with HIV, the vast majority of those are in Sub-Saharan Africa, where 5% of the population is infected, roughly 21 million people. As awareness has grown, new treatments have been developed that make HIV far more manageable, and many of those infected go on to lead productive lives.

- **H1N1 FLU PANDEMIC (2009)**

- Death Toll: 100 to 500 thousand
- Cause: Influenza (H1N1pdm09 virus)
- In the spring of 2009, a novel influenza A (H1N1) virus, swine in origin, emerged. It was detected first in the United States and spread quickly across the United States and the world. This new H1N1 virus contained a unique combination of influenza genes not previously identified in animals or people.

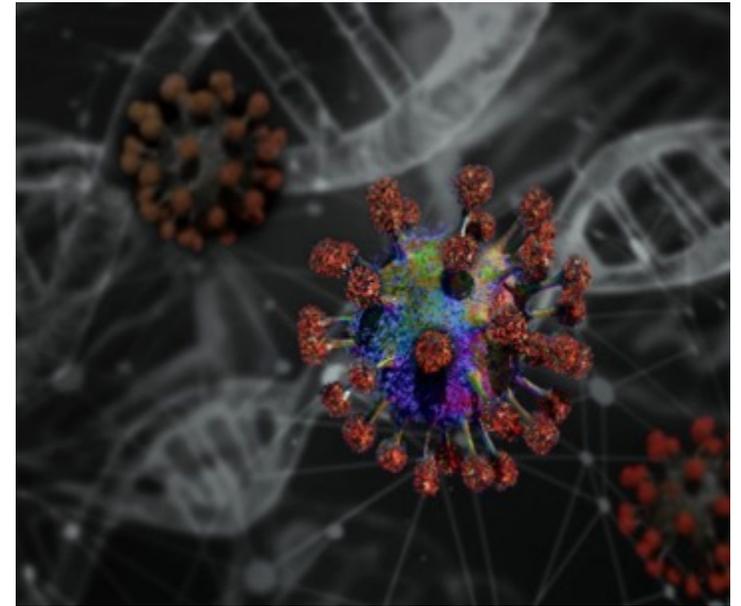
Symptoms of Swine Flu



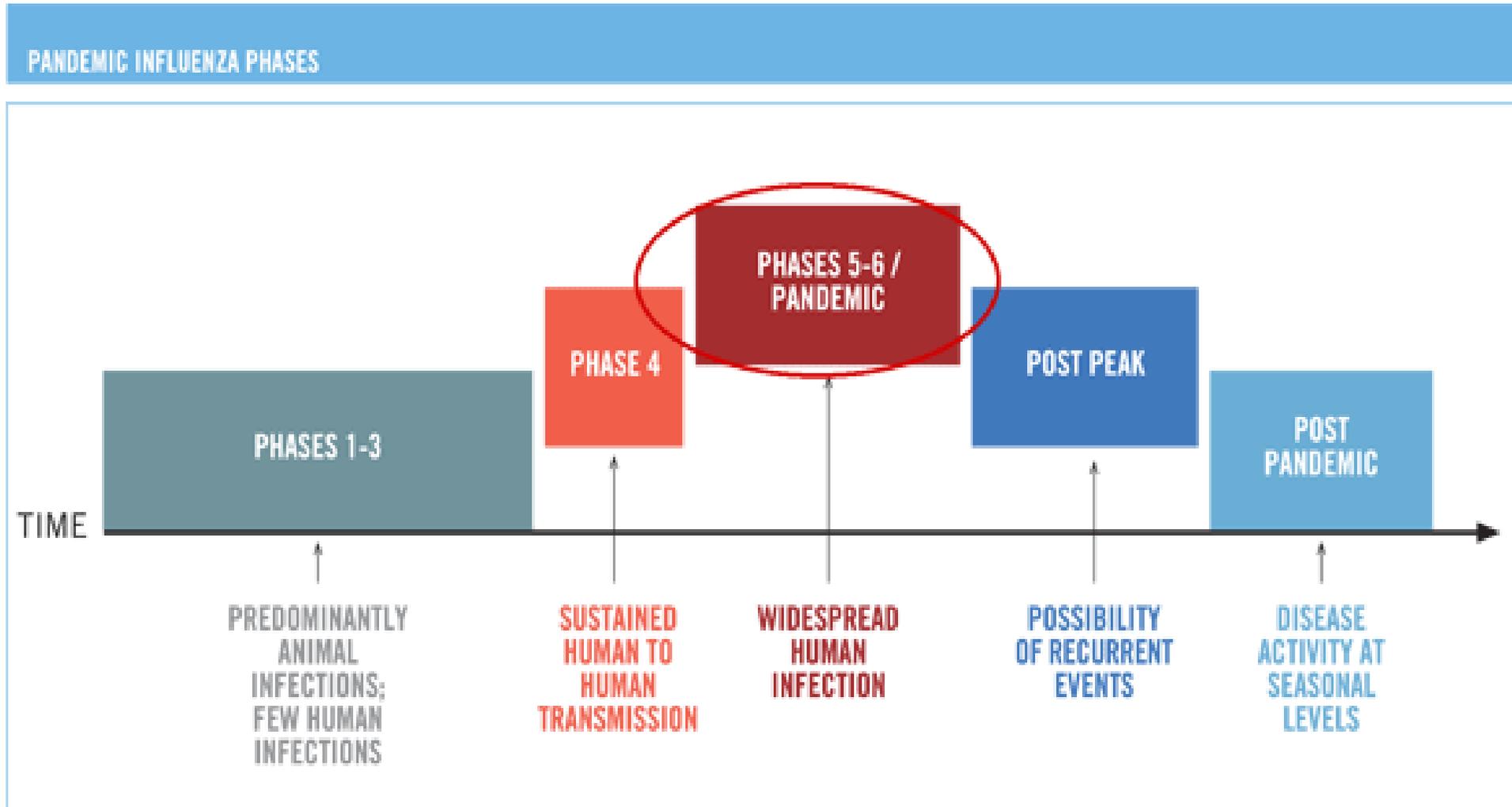
COVID-19 PANDEMIC

- **COVID-19 PANDEMIC**

- [Current Death Toll: 1,070,00](#)
- Cause: Coronavirus Disease of 2019
- Beginning in December 2019, in the region of Wuhan, China, a new (“novel”) coronavirus began appearing in human beings. This new virus spreads incredibly quickly between people, due to its newness – no one on earth has an immunity to Covid-19, because no one had Covid-19 until 2019. While it was initially seen to be an epidemic in China, the virus spread worldwide within months. The WHO declared Covid-19 a pandemic in March, and by the end of that month, the world saw more than a half-million people infected and nearly 30,000 deaths. The infection rate in the US and other nations is still spiking...



WHO Pandemic Phases



Health Center Lessons Learned from the H1N1 Pandemic 2009- 2010

- **Testing:** H1N1 tests largely inaccurate, CHCs could not get access to tests, then treated everyone on the assumption of H1N1 Dx
- **Mixed messages:** Unclear federal and state guidance for Healthcare worker protective measures
- **Supply chain:** shortage of personal protective equipment
- **Physical distancing & masks:** Social distancing and masking were encouraged but not required
- **Primary care event:**, Most people treated in a primary care setting given its mild nature, not hospitals
- **Plandemic:** Referred to as the “plandemic” – pandemic that was mild that allowed us test our plans but not as deadly as COVID-19



Health Center H1N1 Lessons Learned That Apply To COVID-19



- **H1N1 Vaccine:** The vaccine took 6+ months to make and distribute via Point of Dispensing (PODs)
- **Priority vaccine guidelines:** CHC Guidelines on vaccine distribution was pregnant women, children, and seniors. Priority vaccine access guidelines may be different for COVID-19
- **Vaccine access:** challenging when CHCs did not have existing relationships/MOUs with public health departments
- **Seasonal flu and H1N1 vaccine distribution:** everyone needed 2 doses of H1N1 and 1 seasonal flu dose – patient tracking challenging



Challenges for Healthcare in Pandemic Response

- Capacities in US hospitals are decreasing, with patient rooms being re-designed from double occupancy to single occupancy
- US hospital Intensive Care Unit (ICU)/Critical Care Unit (CCU) beds are decreasing while population is increasing
- Many US hospitals and healthcare agencies have converted to Just In Time (JIT) Inventory practices in a cost saving measure, this can severely hinder safe response due to lack of PPE



Challenges for Healthcare in Pandemic Response

- Increase in public reliance on EMS and Emergency Departments for primary medical care
- Lack of Administrative and medical staff support for Emergency Preparedness Planning, Drills and Training
- Staff absenteeism may increase 40% or more
- Need to plan and prepare for multiple Pandemic waves. Learn from the past! It WILL happen!
- Challenges in obtaining supplies will occur and need to plan for and the impact on the facility



[4th Street Clinic's COVID-19 Homeless Services](#)



Best Practices for Healthcare in Pandemic Response

- Develop protocols/guidelines for Pandemic Response and Surge Capacity, including use of Incident Command. Determine what works and what doesn't. Continue to refine the process!
- Maintain relationships with Healthcare Coalition/community partners ahead of time. This will be critical when a surge occurs, or resources need to be requested from local, state or federal stockpiles.
- Plan for Mass Vaccination needs!
- Health Centers testing continues.....



Best Practices for Healthcare in Pandemic Response

- Develop PPE cleaning/re-use and Ventilator Management Protocols for scarce resource management.
- If alternate care areas are considered, ensure electronic health records and locations are mapped and have Wi-Fi capability and ability to staff and manage.



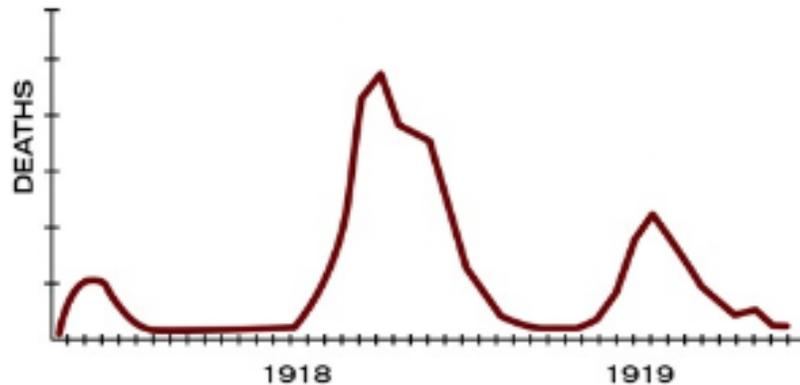
Best Practices for Healthcare in Pandemic Response

- Plan for a stockpile (5-8 weeks) of key consumable equipment, such as PPE (N-95 masks,, isolation gowns, Face Shields, etc.
- Ensure Orders of Succession/Delegation of Authority are set and in-place.
- Staffing during a pandemic is critical. Planning may include education on family preparedness and include care for staff and their families or considerations for staff to perform duties from home or cross-training for other departments.
- Practice response in drills and exercises.



Preparing for the “Next Waves” in COVID Pandemic

Learn from the past to prepare for the future...



There were 3 different waves of illness during the pandemic, starting in March 1918 and subsiding by summer of 1919. The pandemic peaked in the U.S. during the second wave, in the fall of 1918. This highly fatal second wave was responsible for most of the U.S. deaths attributed to the pandemic.

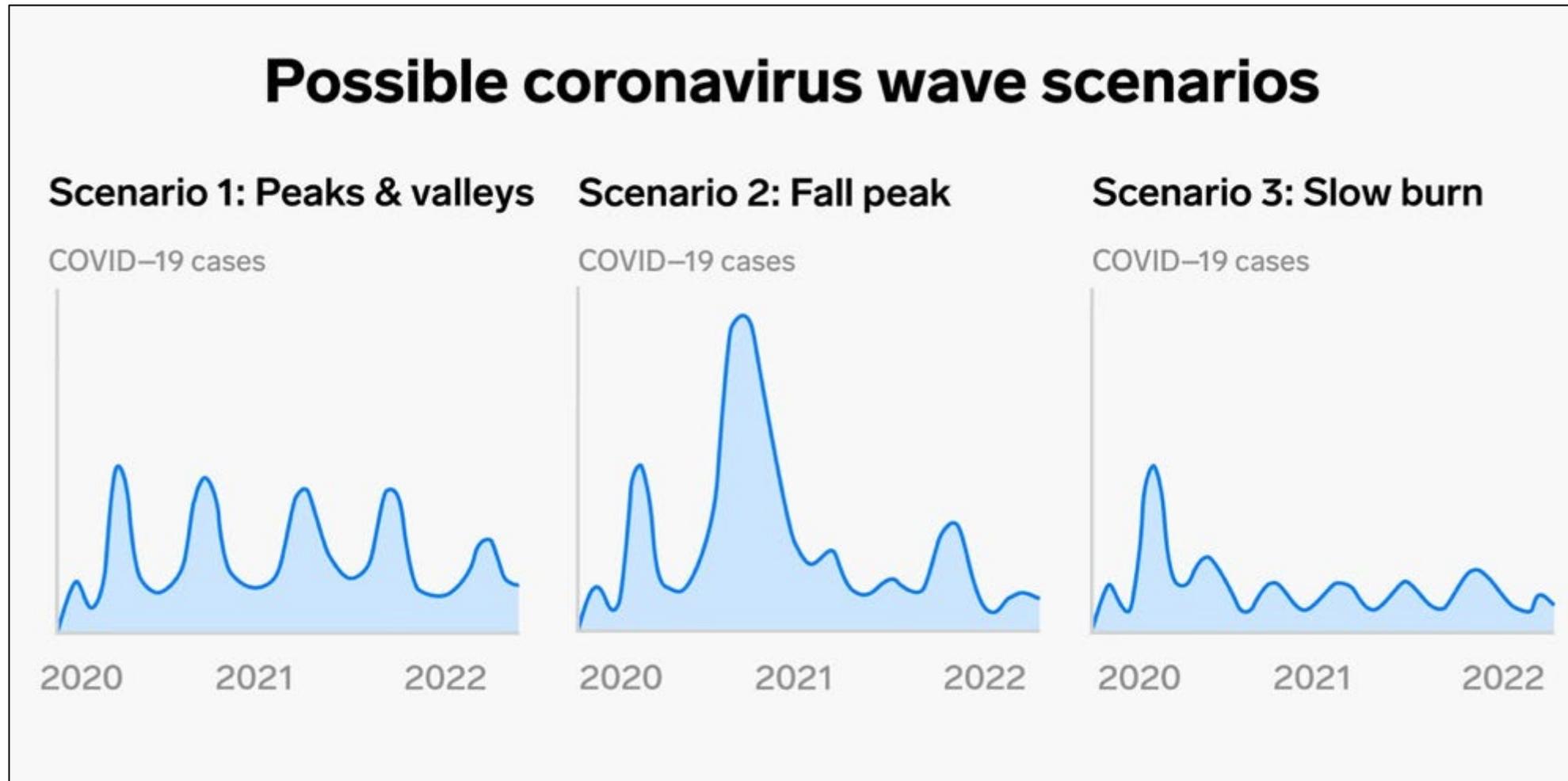
**FIRST
WAVE**
SPRING
1918

**SECOND
WAVE**
FALL
1918

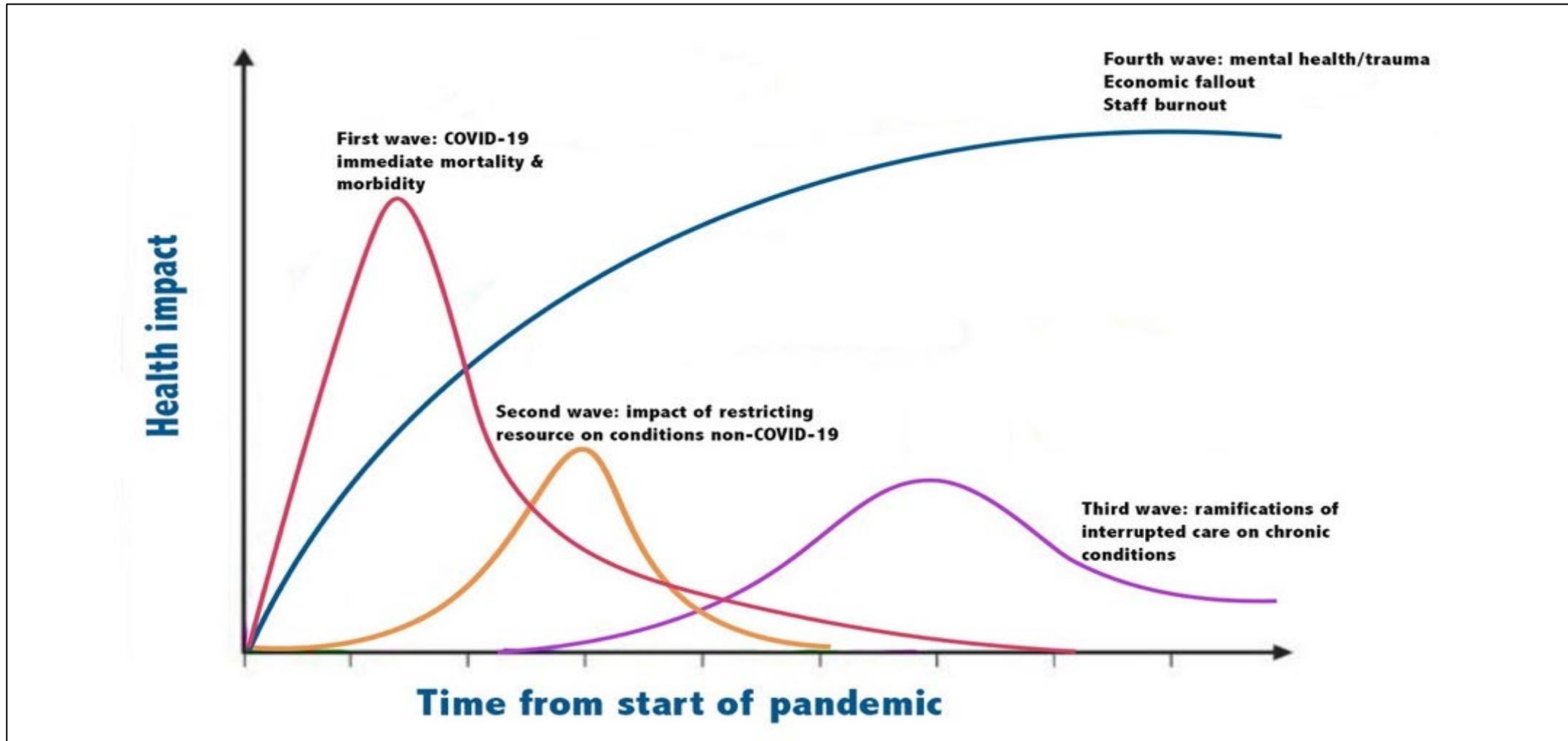
**THIRD
WAVE**
WINTER
1918



Preparing for the “Next Waves” in COVID Pandemic



Preparing for the "Next Waves" in COVID Pandemic



Preparing for the “Next Waves” in COVID Pandemic

- As the waves begin to appear and case numbers increase, ensure to evaluate the amount of PPE in-house and in stockpiles
- Continue to monitor the evolving situation with vetted intelligence, not just relying on media.
- Reach out early for resources (staffing; supplies) and have locations to stockpile
- Work as a **TEAM**. Infectious Disease Surge is NOT just a Public Health issue, but a whole community issue.
- Ensure Medical Staffing included in this process.



Preparing for the “Next Waves” in COVID Pandemic

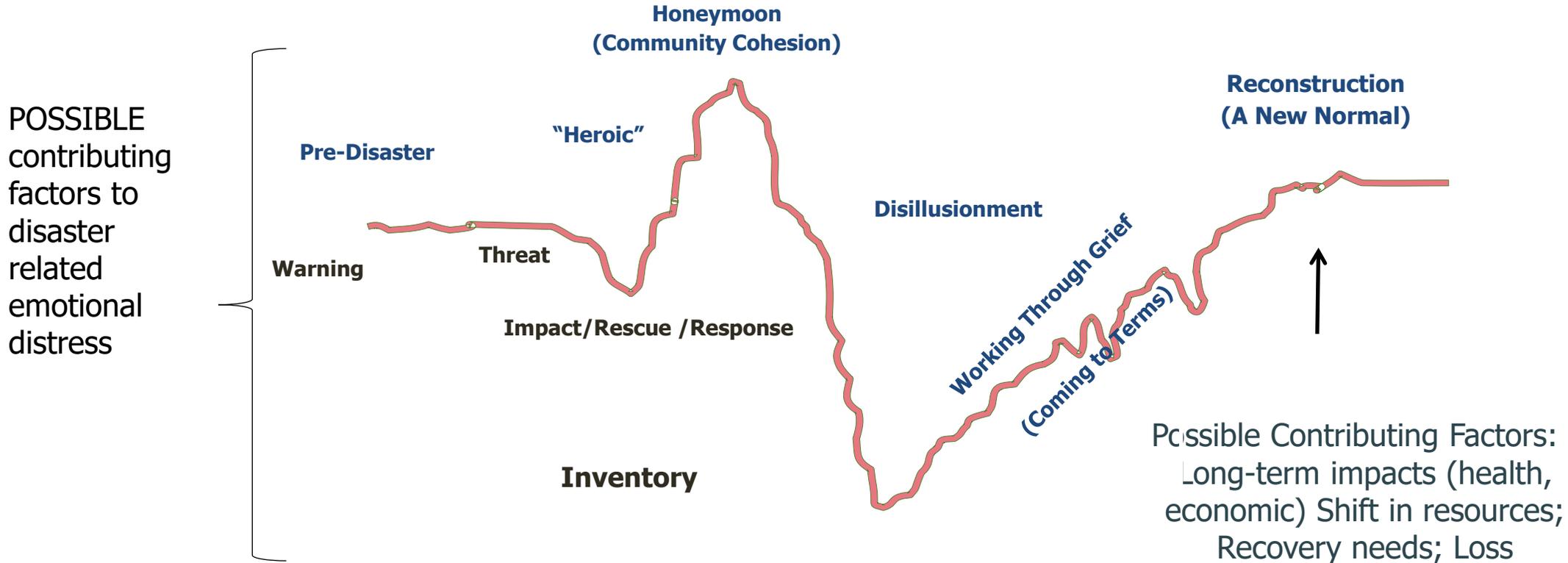
- Continue the use of “Tele-health” and screening for patients that would be coming in for care.
- Continue ongoing screening and masking of employees, vendors
- Continue to evaluate need and use of Telecommute/Remote Working for employees.
- Continue training and education related to pandemic response. Staff must feel prepared, safe and have the appropriate resources to do their jobs each day, especially when dealing with COVID-19 and other types of pandemic situations.
- Consider the impact on staff and their mental health. Fear, potential loss and ethical considerations and decisions may have to be made during a Pandemic that can impact staff greatly.

Cheerful Words of Support from 4th Grade Schoolkids

Thank you to the 4th graders at Twin Lakes Elementary (Orangevale) for their uplifting art and words of support! Their signs are posted along the walkway in front of the hospital.



Timeline for Most Disasters/Emergencies Building Resilience



Looking to the Future

- Things to consider...
 - Relationships with state and local health departments and healthcare coalitions
 - Will telehealth be a permanent service your members provide?
 - When a vaccine is available, are your members interested and equipped to serve as a Point of Dispensing (POD)?
 - How are your members planning for additional disasters besides COVID-19 such as earthquake and wildfire?



Health Center COVID Discussion and Report Out

- **Pick a partner from another health center. Discuss**
 - **What is your plan for a phase two of COVID-19?**
 - ✓ *What new policies and procedures have you implemented this year?*
 - ✓ *Did you support your healthcare community response and mitigation efforts?*
 - ✓ *Are you working with your local health department and healthcare coalition to resources and medical care coordination?*
 - ✓ *What resources do you need to respond to the next pandemic wave?*



APHCA Emergency Preparedness Infectious Disease Toolkit Resource

<Insert Organization's Name>
Emergency Management Program
Emerging Infectious Disease Response Plan



Emerging Infectious Disease Response Plan

<Incorporate any of your organization's existing response plan information throughout this template.>

<FIND and REPLACE WORDS: Look for the words in GREY. Insert LOGO in the upper right corner of the header.>

1. <insert Organization's name> or <insert organization's name> = Your Organization's Name
2. Patient, patients, patient = Use the most appropriate words that describes the individuals that your organization services (i.e. patient, resident, participant, client, etc.)

<Delete these instructions in RED.>

Background

Emerging infectious diseases are those whose incidence in humans has increased over the past decades or threatens to increase in the near future. Examples of these include, but are not limited to: the 1918 Spanish Flu, Ebola, SARS, and MERS and COVID-19. These pandemic diseases challenge efforts to protect workers as prevention and control recommendations may not be immediately available. The occupational safety and health community can prepare for these unpredictable disease outbreaks and prevent disease transmission with resources for protecting workers, particularly healthcare workers, nurses, doctors, and first responders. (Source: [CDC The National Institute for Occupational Safety and Health \(NIOSH\)](#))

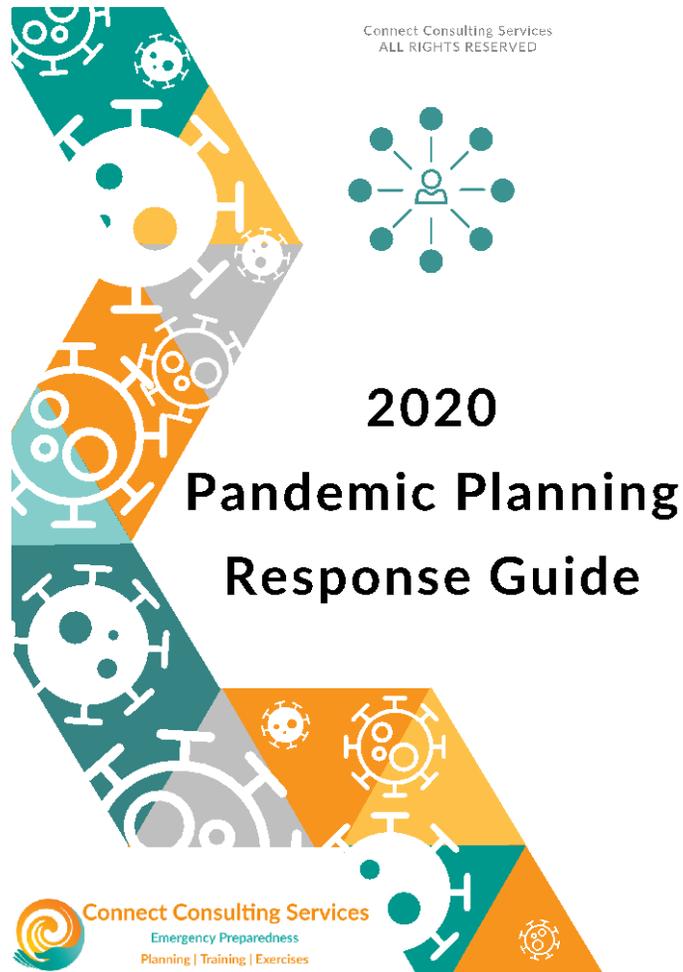
In the event of an emergency or disaster, the staff of <insert Organization's name> may need to respond to medical and non-medical emergencies that may threaten the health or safety of the participants, staff, and/or the public. An infectious disease event presents an immediate and potential long-term risk to individuals and populations. Events vary by many factors including scale of exposure, mode of transmission and type of agent.

While surveillance systems and detection capabilities have improved, the potential for an event has grown due to globalization and political issue that may affect terrorism attempts. The

- A CMS Emergency Preparedness Requirement since March 2019, all CMS providers must have an emerging infectious disease response plan
- Included in your APHCA Toolkit



APHCA Emergency Preparedness Toolkit Pandemic Resource



- WHO Pandemic phases
- Guide to develop a pandemic response and recovery plan for each phase
- Business Continuity Planning Considerations



Questions?



Healthcare COVID-19 Resources

- CMS often refers to the Centers for Disease Control guidance for many aspects of COVID-19 response including:
 - Use of Personal Protective Equipment(PPE)
 - Fit Testing
 - Screening, Temperature Checks and Testing
 - Physical Distancing
 - Donn and Doffing techniques
 - Hand Hygiene
- Source Link: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>



More Healthcare COVID-19 Resources

- [COVID-19 Workforce Virtual Toolkit: Resources for Healthcare Decision-Makers Responding to COVID-19 Workforce Concerns](#)
- [Coronavirus Waivers & Flexibilities](#)- always updating
- [Assistant Secretary for Preparedness and Response COVID-19 Technical Resources](#) – CMS provider specific information



Connect Consulting Services Support

- Every APHCA member has 4 hours of consulting that was covered by APHCA included in the CMS Compliance Toolkit.
- To book your consulting hours through September 30, 2021-
<https://calendly.com/connectconsulting/30min?month=2020-09>
- How we can assist you:
 - ✓ Pandemic Response and Recovery Planning
 - ✓ Emergency Operation Management Planning
 - ✓ Business Continuity Planning
 - ✓ Active Shooter and Workplace Violence De-escalation planning and training
 - ✓ Drills and Exercises
 - ✓ Compliance Audit and Improvement Planning



Connect with us!



Connect Consulting Services

Emergency Management and
Business Continuity Planning

Office: 916-758-3220

Fax: 916-750-2882

Email:

Connect@ConnectConsulting.biz



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Nora O'Brien, MPA, CEM

Founder and CEO

Office: 916-758-3220

Mobile: 916-806-7361

Email: Nora@ConnectConsulting.biz



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O'Brien](#)

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Karen Garrison

Director of Aging Services

Office: 916-758-3220

Mobile: 415-823-0345

Email: Karen@ConnectConsulting.biz



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