

This paper will

- Provide a high-level snapshot of the unfolding of key events surrounding the onset of COVID-19 infection in the City of Pasadena; and
- Summarize the City of Pasadena Public Health Department (PPHD) actions to prepare for, respond to, and mitigate the threat of COVID-19 in Pasadena's long-term care facilities.¹

Sequence of Key Events

2017

- **March, July and September:** A wide range of community health stakeholders (including Huntington Hospital and its Senior Care Network, Pasadena Senior Center, CHAPcare, Pasadena Community Foundation) met to identify and prioritize health needs of greater Pasadena residents. The 2018-2022 Greater Pasadena Community Health Improvement Plan representing shared goals for all of these stakeholders to work on together to achieve collective impact include: Goal 1, Improving the health, function and quality of life of older adults and Objective 1.4, Improve the wellness and health outcomes of older adults in long-term care facilities.

2018

- **March:** PPHD conducted in-person, on-site investigations of outbreaks of carbapenemase-resistant enterobacteriaceae (CRE) in skilled nursing facilities (SNFs), providing facilities staff with technical assistance on proper use of PPE, proper hand hygiene, how to cohort patients and staff to prevent the spread of disease, and how to train new staff. Coordinated with Los Angeles County Health Facilities Inspection Division (CDPH Licensing and Certification Program)² and CA Office of the Ombudsman.

¹ For purposes of this paper the term, "long-term care facility" will refer to skilled nursing facilities [SNFs] and Residential Care Facilities for the Elderly [RCFE or Assisted Living].

² The California Department of Public Health, Licensing and Certification Program (CDPH L&C) contracts with the Los Angeles County Health Facilities Inspection Division to conduct surveys and investigations on behalf of the state CDPH L&C. Los Angeles County Health Facilities Inspection Division is accountable to the state CDPH. References to CDPH mean the same as Los Angeles County Health Facilities Inspection Division.

- **April/May:** PPHD partnered with CDPH Healthcare Associated Infections team and LA County Department of Public Health to conduct Infection Control Assessments Report in SNFs, including education on proper use of PPE, proper hand hygiene, how to cohort patients and staff to prevent the spread of disease, and how to train new staff.

2019

- **March 27:** PPHD provided infection control resource binders to every SNF to improve infection control capabilities including proper use of PPE, proper hand hygiene, how to cohort patients and staff to prevent the spread of disease, and how to train new staff. PPHD Epidemiologist and nurses conducted in-person outreach by March 27, 2019 to all facilities.
- **November and December:** PPHD Public Health Emergency Preparedness Program contacted every licensed long-term care facility in Pasadena to conduct outreach, education, and update facility status and contact information so that rapid communication channels would be in place for notification of any type of public health emergency.
- **December 19:** The Wuhan Health Commission reported a cluster of pneumonia cases of unknown cause to the China Centers for Disease Control.

2020 – January

- **January 4:** The World Health Organization [WHO] reported on these cases. There were no deaths from the pneumonia at this point in time.
- **January 11:** First death from virus identified in China.
- **January 12:** China shared the genetic sequence of the virus.
- **January 13:** Case identified in Thailand, the first infection outside China.

- **January 14:** WHO's technical lead for the response noted there may have been limited human-to-human transmission of the coronavirus (in the **41 confirmed cases**), mainly through family members, and that there was a risk of a possible wider outbreak. The lead also said that human-to-human transmission would not be surprising given our experience with SARS, MERS and other respiratory pathogens.
- **January/February:** PPHD conducted in-person investigations of outbreaks of drug-resistant *Candida auris* in a SNF, providing education on proper use of PPE, proper hand hygiene, how to cohort patients and staff to prevent the spread of disease, and how to train new staff. Coordinated with CDPH Licensing and Certification Program, Los Angeles County Department of Public Health, CDPH Healthcare-Associated Infections (HAI), and CA Office of the Ombudsman.
- **January 20 – 21:** First cases identified in South Korea and Japan.
- **January 21:** First case identified in state of Washington involving man in his 30s who exhibited symptoms after having just returned from a trip to Wuhan.
- **January 22:** WHO mission to China stated that there was evidence of human-to-human transmission in Wuhan, China but more investigation was needed to understand the full extent of transmission.
 - PPHD began providing guidance to schools about students returning home from travel in China, including evaluation of possible Persons Under Investigation.
- **January 23:** PPHD began providing one-on-one education to infection prevention nurses at SNFs about coronaviruses, including the difference between standard coronaviruses and the novel virus.
- **January 30:** WHO Emergency Committee reached consensus that the virus constituted a Public Health Emergency of International Concern [PHEIC].
- **January 31:** Trump Administration suspended entry into the United States by any foreign national who had traveled to China in the prior 14 days, excluding immediate family members of American citizens or permanent residents.

2020 - February

- **February 2:** 44-year-old man in the Philippines died of coronavirus. First death outside of China.
 - The first community transmission of COVID-19 was identified in San Benito County. This involved a man returning from Wuhan, China infecting his wife, who had not traveled to Wuhan.
 - The Pasadena Public Health Department receives notification of the first Pasadena resident returning from China to Pasadena. PPHD followed more than 80 travelers.
- **February 6:** The first death in California due to COVID-19 occurred on this date in Santa Clara County. However, the cause of death would not be confirmed until late April.
- **February 28:** The United States initially reported the first death from COVID-19 involving a patient near Seattle. In fact, there had been 2 earlier deaths due to COVID-19, but those deaths would not be tied to COVID-19 until months later.

2020 - March

- **March 3:** City of Pasadena PPHD activated the Department Operations Center. Command objectives included: "Prioritize outreach to vulnerable populations (e.g., SNFs, ALFs, etc.) and people with disabilities and access and functional needs (DAFN)."
- **March 4:** City of Pasadena Public Health Officer declared a Local Public Health Emergency, at a joint press conference with LA County and Long Beach health officials.
 - Shortly after, California Governor Gavin Newsome declared a state of emergency in California.
- **March 5:** PPHD began in-person visits to every state-licensed skilled-nursing facility in the jurisdiction.
 - Nurses conducted on-site COVID-19 preparedness training with facilities staff.
 - Training included: review of CDPH L&C All Facilities Letter dated 3/3/20 that provided "Interim guidance for facilities to prepare for community transmission of COVID-19" and "Strategies to prevent spread in long-term care facilities".

- SNFs were directed to follow the CDPH guidance for designation of specific staff with infection prevention and PPE training to care for patients with confirmed or suspected COVID-19, to instruct staff to monitor for symptoms and not work if sick, and to make contingency staffing plans should staff be sick.
- SNFs were directed to follow CDC guidance for "Strategies to Prevent the Spread of COVID-19 in Long-Term Care Facilities" that included posting signs to restrict sick visitors in order to prevent introduction of COVID-19 into facilities, and to report any possible cases of COVID-19 among residents or employees to the local public health department.

- **March 6:** PPHD Health Officer and Epidemiologist presented and answered questions on public health and COVID-19 at two meetings hosted by Huntington Hospital open to all community physicians, including medical directors of long-term care facilities, and physicians with patients at long-term care facilities.

COVID-19 added to Pasadena list of Reportable Diseases and Conditions. (Previously required to be reported under "Occurrence of any unusual disease").

- **March 11:** WHO assesses that COVID-19 is a Pandemic.
 - PPHD Public Health Emergency Preparedness program distributed information on COVID-19 to long-term care facilities, including guidance from the CDC, CDPH and LA County.
 - PPHD Epidemiologist and staff began conducting in person outreach and distributing resources to congregate living settings, including Union Station and Centennial Place, as well as individual case consultation.
- **March 12:** First report of confirmed COVID-19 in a city resident received by PPHD.
- **March 13:** President Trump declared a national state of emergency.
- **March 15:** CDC advised that no gatherings of more than 50 individuals over the next 8 weeks.
 - California Governor Gavin Newsome issued Executive Order 27-20 which redeployed the California Department of Public Health, Department of Social Services Community Care Licensing and the California Occupational Safety and Health staffs to focus primarily on providing technical assistance to those health and community facilities who provide care to the most vulnerable residents. The enforcement role of these agencies is required to be reserved for the most serious violations impacting health and safety.

- **March 16:** City of Pasadena Public Health Officer issued written health officer directives and guidance to facilities including requirements to restrict visitors and non-essential personnel, instituting symptom screening for anyone entering facility, and not allow anyone with symptoms to enter. Facilities were directed to follow guidance from the Centers for Medicare and Medicaid Services (CMS) and CDPH/CCLD.
- **March 17:** PPHD Public Health Emergency Preparedness program offered all skilled nursing facility administrators, directors of nursing and infection control preventionists an allocation of N95 respirators.
- **March 18:** PPHD notified assisted living facilities and adult/senior care facilities of a scheduled conference call on COVID-19. The call offered guidance, outlined specific actions to take to protect clients, residents and staff and to slow the spread of the disease.
- **March 19:** City of Pasadena Health Officer issued Safer at Home order, and revised March 22 to incorporate State Health Officer's Stay at Home order.
- **March 27:** City of Pasadena Health Officer issued orders requiring the self-isolation of persons diagnosed with or likely to have COVID-19 and self-quarantine of persons exposed to a person diagnosed with or likely to have COVID-19.
- **March 30:** First report of a skilled nursing facility resident diagnosed with COVID-19. Report was submitted by hospital when patient was admitted, not by the SNF. The Public Health Department determined that the onset of symptoms for this resident was on March 24th.
 - CDC updated its guidance to change the period of exposure risk for individuals from "onset of symptoms" to " 48 hours before symptom onset," based on new evidence that transmission by people who are asymptomatic or mildly symptomatic was responsible for more transmission than previously thought.

2020 – April

- **April:** PPHD staff continued on-site visits and daily communication with facilities. PPHD conducted daily communication and coordination with agencies with regulatory authority of long-term care facilities, and partners: CDPH Licensing (LA County

Health Facilities Inspection Division), CA Department of Social Services, Community Care Licensing, Pasadena Fire Department, CA Office of the Ombudsman, and CDPH Healthcare-Associated Infections teams. PPHD conducted daily COVID-19 clinical team case conferences to review cases and develop recommendations for each long-term care facility. PPHD implemented COVID-19 testing strategies at facilities, including outbreak investigation testing, and as testing supply increased, mass testing strategies.

- **April 2:** PPHD Public Health Emergency Preparedness Program, in partnership with the Los Angeles County Department of Public Health, released additional updated strategies on how skilled nursing facilities could best stop the virus from entering their facility, early identification of infections, prevent spread within the facility, assess supplies needed to protect residents and staff, and identify and manage serious illness.
- **April 9:** PPHD distributed new information from the CDC on "Guidance for Implementing Safe Practices for Critical Infrastructure Workers Who May Have Had Exposure to a Person with Suspected or Confirmed COVID-19." Reminded skilled nursing facilities of a skilled nursing facility infection prevention/control all-facilities call hosted by the California Department of Public Health, L&C and HAI staffs.

PPHD Nursing and Epidemiology Teams notified long-term care facility leadership of several resources to keep up to date with vital information from the City of Pasadena, County of Los Angeles and State of California. This notification provided the instructions to sign up for the Los Angeles County Health Alert Network (LAHAN) and to the California Department of Health All Facilities Letters on COVID-19. Included a reminder that facilities are responsible for coordinating the testing of residents and staff for COVID-19 and to not refer staff or residents to a hospital emergency room for testing of individuals not needing hospital care.

The Pasadena Office of the Chief Assistant City Prosecutor sent letters to every skilled nursing facility and assisted living facility listing nine (9) action items that they were required to implement in order to be in compliance with existing Health Orders.

- **Over the Following Week:** The Pasadena Office of the Chief Assistant City Prosecutor then made contact with each of the SNF and Assisted Living facilities by phone or email, reminding them of their duties under the Orders and to re-emphasize the action items required to be implemented.
- **April 12:** City of Pasadena Health Officer issued Order for the Control of COVID-19 related to infection prevention and control of COVID-19 in licensed long-term care facilities.

April 15: Long Beach Health Officer Issued Licensed Congregate Healthcare Facilities Order modeled after Pasadena April 12 Order.

- **April 17:** PPHD Public Health Nursing Team distributed guidance to all SNFs on use of emergency services during the COVID-19 pandemic. Guidance was developed by PPHD and the Pasadena Fire Department.
 - PPHD Public Health Nursing Team also distributed countywide guidance for congregate living facilities available in multiple languages.
- **April 24:** Los Angeles County Health Officer Issued Licensed Congregate Healthcare Facilities Order modeled after Pasadena April 12 Order.
- **April 27:** The PPHD Public Health Nursing Team distributed to facilities the countywide guidelines for patient transfer criteria, applicable to any group residential setting, long-term care facilities and hospitals.
- **April 29:** PPHD Emergency Preparedness Program notified skilled nursing facilities and assisted living facilities of the availability of personal protective equipment (PPE) and provided the opportunity to request equipment based on their stores, patient census and number of staff.

2020 - May

- **May:** PPHD staff continued on-site visits and daily communication with facilities. PPHD continued daily communication and coordination with agencies with regulatory authority of long-term care facilities, and partners: CDPH Licensing (LA County Health Facilities Inspection Division), CA Department of Social Services, Community Care Licensing, Pasadena Fire Department, CA Office of the Ombudsman, and CDPH Healthcare-Associated Infections teams. PPHD conducted daily COVID-19 clinical team case conferences to review cases and develop recommendations for each long-term care facility. PPHD continued implementation of mass testing strategies in all facilities.

- **May 6:** City of Pasadena Public Health Officer Issued a Supplemental Order for Control of COVID-19 Related to Infection Prevention and Control of COVID-19 in Licensed Long-term Care Facilities, to require facilities to conduct COVID-19 diagnostic testing as directed by PPHD.
- **May 11:** CDPH All Facilities Letter issued, requiring SNFs to implement a Facility Mitigation Plan, including testing and cohorting as directed by the local public health department. Also required the SNF to designate/hire an infection preventionist, for the SNF to ensure proper training on infection prevention, and for the SNF to have a plan for adequate PPE including established contract with vendors.

Summary of the City of Pasadena's Public Health Department's Actions to the COVID-19 Pandemic

Why is COVID-19 so much more confounding than SARS or Ebola?

In an article for the March 24, 2020 USC "The Dornsife" Magazine, sociologist Andrew Lakoff explained the following:

There are distinct differences between the current pandemic and the two most recent disease outbreaks, which Lakoff has studied. The 2009 H1N1, or swine flu, pandemic was caused by a type of influenza virus, so scientists already knew how to make a vaccine for it. By contrast, there is no vaccine for the coronavirus, which is new to humans and also more deadly than the swine flu.

On the other hand, the Ebola virus has a much higher mortality rate than the coronavirus but is far less transmissible. Although the 2014 outbreak in West Africa was catastrophic in the region, it never turned into a pandemic thanks in part to a major — if belated — global reaction, but also because the Ebola virus is more easily containable than either influenza or coronavirus.

The City of Pasadena Public Health Officer and Department have had to do battle with COVID-19 and associated obstacles, as experienced elsewhere in California and the Nation. These obstacles include:

- Insufficient PPE for healthcare facilities (including hospitals, SNFs, doctors' offices, etc.) to implement proper infection control protocols.
- Insufficient information about how COVID-19 spreads, at least initially.
- Insufficient testing kits for suspected cases and persons who were asymptomatic.
- Emergence of new symptoms that had previously not been associated with COVID-19.
- No vaccine available.

Despite these huge obstacles to prevention, detection and containment of the COVID-19 virus, the City of Pasadena Public Health Officer and Department took numerous steps to mitigate the spread of the virus, as reflected in the "Sequence of Key Events" presented earlier in this paper.

Distributed PPE to health facilities as the supplies and equipment became available.

In total, the PPHD distributed 15,850 non-medical face masks, 113 boxes/bags of gloves, 800 gowns, 34,280 N95 respirators and 2,400 face shields within the City of Pasadena.

The PPHD depleted available supplies from their own stockpile and from Los Angeles County's stockpile. No PPE was available from the Medical Health Operational Area Coordinator [MHOAC] until April when direct distribution to facilities from the MHOAC was conducted. The PPHD was able to secure necessary equipment from a variety of sources.

Sharing Information on how COVID-19 Spreads.

The PPHD ensured that the community-at-large and particularly health care providers received the most current information about transmission of this virus. At first, it appeared as though infection was spread to those who had recently traveled to China. This changed with the advent of community-transmission – that is, a person who had not traveled to the affected areas could become infected from others who had traveled.

Public Health officials were advised to look for symptoms: primarily fever and lower respiratory illness, including coughing. Additional symptoms were subsequently shared including, chills, muscle pain, sore throat, and a new loss of smell or taste. Other more recently identified symptoms that seem to be related to COVID-19 include discoloration of the toes.

As investigations of possible related symptoms continued, it became clear that an individual could be infected with COVID-19 and show no symptoms. This was particularly devastating in long-term care facilities if employees were infected, but were asymptomatic.

Secured testing kits for COVID-19 as soon as available.

A major public health tool for dealing with a new communicable disease is to test for infection. Testing leads to identification of the disease, prompt treatment for those who test positive, and ability to begin immediate isolation to prevent spread. Knowing the number and locations of individuals who test positive is key to conducting surveillance of others who may have encountered the COVID-positive person.

Without testing, public health officials cannot identify the prevalence, spread and contagiousness of the disease.

The United States and California was plagued with delays in producing enough quality test kits. California did receive a small number of test kits, but those test kits were defective. Partnering with the Los Angeles County Public Health Laboratory and as soon as test kits were available, the PPHD ensured that the kits were directed to outbreak investigations in long-term care facilities. Lack of available test kits nationwide delayed confirmation of suspected cases and testing for individuals who were asymptomatic. The delays in receiving test kits presented a major setback in detection of this disease nationwide.

Continued to serve as the main conduit of updated information for long-term care facilities.

The PPHD enjoys strong working relationships with other state and local public health jurisdictions, laboratories, local law enforcement and fire authorities.

In addition, PPHD has an ongoing communications and mutual assistance from the California Department of Public Health's Healthcare Acquired Infections Program, the Licensing and Certification program, the state Department of Social Services Community Care Licensing, the local Long-term care ombudsman. The PPHD has a clear track record of communications, public health guidance and training to the City of Pasadena's Long-term care facilities.

Having built these strong relationships, the PPHD has been able to share written and verbal reports with state regulatory agencies. The state agencies also share any infection control related investigations they might have conducted. First responders promptly notify the PPHD if an individual being transported or otherwise encountered exhibits signs of a communicable/infectious disease. Likewise, the hospital contacts the PPHD if a patient presents with signs of communicable disease.

Using the Public Health Toolbox

The primary focus of all public health officers is prevention. However, once the focus shifts to detection and mitigation, the public health officer must use all of the tools made available under state and federal laws.

The PPHD initiated restrictions on visitation of long-term care facility residents, and soon afterward enforced a ban on visitors. In addition, long-term care facilities were prohibited from admitting any new residents.

The PPHD also worked closely with state licensing agencies, so that those agencies could impose more serious sanctions if warranted. Additional public health actions are reflected in the "Sequence of Key Events" presented earlier in this paper.