

CITY OF LOS ANGELES



PANDEMIC ANNEX

**Approved by the Emergency Management Committee – [March 6, 2019]
Approved by the Emergency Operations Board – [May 21, 2019]**

This Annex is not a standalone document. It is intended to augment the City of Los Angeles Emergency Operations Plans and Procedures and the City of Los Angeles Public Health Emergency Response Plan, along with departmental plans, provide direction and guidance to City departments when responding to public health emergency. This Annex is applicable to those City departments with Emergency Operations Organization (EOO) responsibilities and all other City agencies with essential EOO needs or resources and facilities available to the EOO.

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ANNEX DEVELOPMENT AND MAINTENANCE

This Annex is developed in support of the City of Los Angeles Emergency Operations Plan (EOP) to facilitate response to seasonal and pandemic influenza as well as pandemic incidents stemming from viruses other than influenza. This Annex is developed in cooperation and with input from City departments with primary response or support activities, as well as input from appropriate non-City agencies with identified activities related to pandemic and other public health-related incidents.

This Annex is developed to describe the overall Citywide response function and capabilities, and is to be used by each department identified within this Annex to develop their own standardized operating procedures (SOPs) specifically for their department to direct tactical operations. When developing SOPs, each department is to take into consideration all of the activities identified in this document directly related to their own department, as well as how those activities interact with, support, or require support from other departments identified within this plan. Departments must ensure that their SOPs are inclusive of planning for people with disabilities and others with access and functional needs. If, at any time, any department identifies a conflict in how their field response or support activities are performed in comparison to what is described in this Annex or identifies a conflict between their listed activities and/or responsibilities within this Annex and how they relate to or support another department's listed activities, such conflict is to be immediately reported to the Emergency Management Department– Planning Division.

This Annex is to be corrected immediately upon notification or observation of any operational errors or conflicts. If, at any time, a department, agency, or stakeholder to this document changes, develops, or amends any policy, procedure, or operation that will change or affect the contents of this document, that entity is to immediately notify the Emergency Management Department–Planning Division.

Such corrections are to be reflected within the Record of Changes. The Emergency Management Department, working with the Los Angeles County Department of Public Health, may update, modify or change the approaches listed in the Annex on short notice to deal with new public health threats. This Annex is written with the most current information available about seasonal and pandemic influenza as well as pandemics related to other viruses. Future outbreaks of influenza and/or other viruses may require different strategies than those described in this Annex.

Every other year, a formal review of this Annex will be conducted by departments and agencies that are identified within the Annex, as well as any other departments or agencies that may need to be part of the review process. The Emergency Management Department–Planning Division will lead such an effort. Upon completion of such formal review, all corrections to the document will be reflected within the Record of Changes.

Updates, modifications or changes will be brought before the Emergency Management Committee and Emergency Operations Board for consideration as soon as possible, but this could be after the updates, modifications or changes have been implemented.

APPROVAL AND IMPLEMENTATION

This document is a Hazard Specific Annex to the City of Los Angeles EOP. It serves as either a stand-alone Annex or companion document to an applicable Functional Support Appendix. The Annex was developed with input from all applicable City of Los Angeles departments and allied stakeholders. Upon completion, it is reviewed by the City's Emergency Management Committee. When approved by the Emergency Management Committee, it presents the document to the Emergency Operations Board (EOB) with a recommendation for approval. Upon review and approval by the EOB, the document goes to the Mayor of the City of Los Angeles with a recommendation to approve and forward to the City Council for adoption.

This Annex was developed with input from all applicable Los Angeles City departments. It is compliant with the Federal Emergency Management Agency (FEMA) Comprehensive Preparedness Guide (CPG) 101, Developing and Maintaining Emergency Operations Plans, Version 2.0 (CPG 101 V.2)¹.

Upon formal approval by the Mayor and adoption by the City Council, this document becomes an official Annex to the City of Los Angeles EOP.

¹ *Developing and Maintaining Emergency Operations Plans. Comprehensive Preparedness Guide (CPG) 101, version 2.0 ed.* (n.p.: U.S. Department of Homeland Security, Federal Emergency Management Agency, 2010).

RECORD OF CHANGES

Each revision or correction to this Annex must be recorded. The record contains the date, location, and brief description of change, as well as who requested or performed such change.

Once corrections have been made and all affected parties notified of such correction, the type of correction and how it impacts the document will be forwarded to the EOB for approval at the next possible EOB meeting. The correction will remain temporarily in effect within the Annex until such time that the EOB can officially approve or deny such correction.

Table 1: Record of Changes

Date	Section/Page	Description of Change	Changed By
January 2019	Entire document	Biennial Review and Update	Taylor Lorence, LAFD, and other City Dept's

CITY EMERGENCY OPERATIONS PLAN/ANNEX CROSS REFERENCE

The City has several plans and annexes addressing emergency response and recovery. The Pandemic Annex will be implemented in conjunction with the following plans, as applicable:

- Public Health Emergency Response Annex.
- Pandemic Influenza Continuity of Operations Annex.
- Zika Virus Readiness, Response, and Recovery Plan Concept of Operations (CONOPS).

During the response to this identified hazard, the following functional support shall be used as deemed necessary:

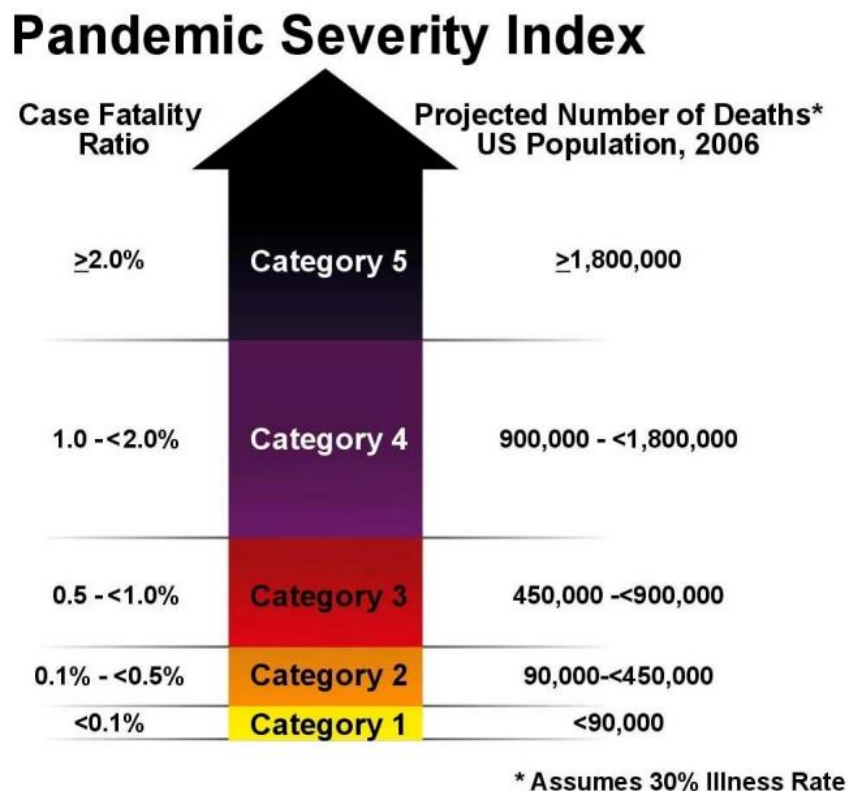
- Throughout this document, where public information and communication with the public is referenced, see the **Emergency Public Information Annex**.
- Where internal communications systems are referenced, see the **Communications Annex**.
- Where early warning and notification is referenced, see the **Early Warning and Notification Annex**.
- Where sheltering, mass care, mass feeding and the provision of functional needs support services (FNSS) is referenced, see the **Mass Care and Sheltering Annex; Resettlement Processing Center Annex;** and the **Logistics Annex**.
- Where reference is made to evacuations, see the **Evacuation Annex**.
- Where reference is made to Federal, State, Local or Non-Governmental Organizations providing recovery information, see the **Local Assistance Center Annex** and **Recovery Annex**.
- Where reference is made to response and restoration of critical infrastructure, see the **Critical Infrastructure Annex**.
- Hazard Specific Annexes include the **Tsunami Annex, Earthquake Annex, Adverse Weather Annex, Brushfire Annex, Urban Flooding Annex, Off-Airport Major Aircraft Response Annex, Debris Flow Annex, Civil Disturbance Annex, Terrorism Prevention and Protection Annex** and the **Chemical, Biological, Radiological, and Nuclear (CBRN) Annexes**.
- All actions related to fulfilling the purpose of this Annex will adhere to the City of Los Angeles Citywide American with Disabilities Act (ADA) guides, documents, and checklists.
- Where City Departments have tasks assigned relative to this Annex, please refer to that specific department's Standard Operating Procedures.

Background

Pandemic presents one of the greatest risks to public health. According to the Centers for Disease Control and Prevention (CDC), *pandemic* refers to an epidemic (defined as an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area) that has spread over several countries or continents, usually affecting a large number of people. In other words, an epidemic is characterized by a sudden increase in number of cases of a disease or virus, while a pandemic is an epidemic that has spread beyond the region and is affecting multiple countries and/or continents.

Measuring the potential severity of a pandemic is a critical component of public health planning. One tool that has been developed to help estimate pandemic potential is the Pandemic Severity Index (PSI), a classification scale for reporting the severity of influenza pandemics in the United States. The index was developed by the CDC as a planning tool to provide more specific community-level prevention measures. The main criterion used in the index to measure pandemic severity is the case-fatality ratio (CFR), the percentage of deaths out of the total reported cases of the disease. Similar to the Saffir-Simpson Hurricane Scale, the PSI ranges from 1 to 5, with 1 being the least severe, and 5 being the most severe. The figure below displays the PSI with correlated CFR and projected number of deaths in the United States:

Figure 1: Pandemic Severity Scale



Other tools and frameworks related to pandemics continue to be developed. The World Health Organization (WHO) has implemented a pandemic alert system based on phases, with Phases 1 through 3 correlating to preparedness (e.g., capacity development, response planning activities), and Phases 4 through 6 correlating with response and recovery activities. Implementation of PSI alerts is expected to occur after the WHO announces Phase 6 influenza transmissions in the United States.

While the PSI is used specifically for influenza outbreaks, pandemics can stem from a number of other sources. Examples of global pandemics that have occurred in the past include typhus fever, malaria, cholera, smallpox, Yellow Fever, the Bubonic Plague, and Acquired Immunodeficiency Syndrome (AIDS), in addition to influenza. Vector-borne diseases caused by parasites, viruses and bacteria can spread rapidly, while blood-borne pathogens can cause viruses in human populations that can then be passed on to others.

Although pandemics can stem from a number of viruses and diseases, this Annex will focus on pandemic influenza as well as provide an overview of past pandemic and/or related public health incidents that have occurred in the City of Los Angeles. Pandemic influenza is distinct from seasonal influenza epidemics that happen nearly every year. The public health impacts of seasonal influenza vary depending on the virus strain, virus characteristics and vaccine usage and potency, among other factors. The CDC estimates up to 79,000 deaths occurred during the 2017 to 2018 influenza season. Seasonal influenza is a major public health concern and must be appropriately managed to mitigate the potential for pandemic influenza.

Influenza pandemics have occurred four times in the 20th century: 1918, 1957, 1968, and 2009. Experts predict that another influenza pandemic is highly likely, if not inevitable. In the United States alone, a pandemic influenza outbreak could infect up to 200 million people and cause between 200,000 and 1,900,000 deaths.

Several characteristics of influenza pandemic differentiate it from other public health emergencies. Unlike other natural disasters, where any disruption to business service provision is likely to be infrastructure-related, disruption to business operations in the event of a pandemic is anticipated to be human and material oriented. A pandemic has the potential to cause illness in a very large number of people, overwhelm the health care system, and jeopardize services by causing high levels of absenteeism in the workforce. Basic services such as health care, law enforcement, fire, emergency response, communications, transportation, and utilities could be disrupted during a pandemic. Finally, a pandemic, unlike many other emergency events, could last many months and affect many areas around the world simultaneously.

In a pandemic situation, the goal is to slow the spread of disease to prevent illness. The most effective strategy to accomplish this is through vaccination. However, it is likely that effective vaccines will not be available for many months following the emergence of a new pandemic strain of influenza. Existing antiviral medications may also not be effective or available. Other infection control strategies such as social distancing, improved hygiene and respiratory etiquette, isolation, and quarantine may be used to control the spread of disease.

information on influenza strains and additional viruses and diseases with pandemic potential are detailed in **Table 2: Viruses and Diseases with Pandemic Potential - Public Health Impacts**. This table is not representative of all possible viruses that have in the past, and could in the future, become pandemics; however, it is inclusive of the viruses and diseases that have contributed to public health incidents in the City of Los Angeles in the past (e.g., the table includes typhus although typhus has a low pandemic probability potential).

Table 2: Viruses and Diseases with Pandemic Potential - Public Health Impacts

Virus/Disease	Description	Public Health Impacts
<p>Influenza (general)</p>	<p>Influenza is a respiratory illness caused by a virus. It causes mild to severe illness in most cases, but can lead to death. Seasonal influenza can occur at any time, but usually peaks between October and April, and can last into May.</p> <p>Influenza is spread from person-to-person through respiratory droplets, usually when an infected person coughs or sneezes on another person. It can also be spread on contaminated objects, such as doorknobs, faucets, telephones and light switches.</p>	<ul style="list-style-type: none"> • Most healthy adults can spread the flu one day before their symptoms develop, and up to five days after becoming sick. Everyone is at risk, but some people are more likely to develop severe illness or complications. Seniors, young children and people with certain health conditions are at risk for complications from the flu. They may develop bacterial pneumonia or dehydration, or an existing chronic medical condition may worsen. • Symptoms of seasonal influenza may include fever, headache, extreme tiredness, dry cough, sore throat, runny or stuffy nose and muscle aches. Symptoms can appear one to four days after exposure to the illness, but usually start about two days after exposure. Symptoms usually start suddenly, not gradually, as they do with a cold. Children may also have gastrointestinal symptoms, like stomach cramping, vomiting, nausea and diarrhea. They may also develop sinus problems and ear infections. • Each year about five percent to 20% of the United States population will get sick with seasonal influenza. Approximately 36,000 of those people will die.
<p>Influenza A, Subtype H1N1</p>	<p>Influenza A, Subtype H1N1 is a subtype of influenza virus A and the most common cause of influenza (flu) in humans. Some strains of H1N1 are endemic in humans. Less virulent H1N1 strains exist worldwide in the wild today, causing a small fraction of all influenza-like illness and a large fraction of all seasonal influenza. Other strains of H1N1 are endemic in pigs (swine influenza) and in birds (avian influenza).</p>	<ul style="list-style-type: none"> • Symptoms of H1N1 flu are similar to the symptoms of regular human flu and include fever, cough, sore throat, body aches, headache, chills and fatigue. Some have reported diarrhea and vomiting associated with H1N1 flu. In the past, severe illness (pneumonia and respiratory failure) and deaths have been reported with H1N1 flu infection. Like seasonal flu, H1N1 flu may cause a worsening of underlying chronic medical conditions.

	<p>This virus is referred to as “swine flu” because laboratory testing showed that many of the genes in this new virus were very similar to influenza viruses that normally occur in pigs in North America.</p>	
<p>Influenza A, Subtype H5N1</p>	<p>Influenza A, Subtype H5N1, also known as "bird flu," is a subtype of the Influenza A virus, which can cause illness in humans and many other animal species. It is extremely rare in humans with most human infections occurring after prolonged and close contact with infected birds. Rare human-to-human spread with this virus has occurred, but it has not been sustained and no community spread of this virus has ever been identified.</p>	<ul style="list-style-type: none"> • The majority of human infections with H5N1 have occurred among children and adults younger than 40 years old. Mortality has been highest in people aged ten to 19 years old and in young adults. Most human cases have presented for medical care late in their illness and have been hospitalized with severe respiratory disease. • In cases where human-to-human transmission of the virus is thought to have occurred, spread has occurred after a very long period of unprotected close contact with a very sick family member. • While human transmission is rare, H5N1 is considered to have pandemic potential. According to the CDC, “If...H5N1 viruses gain the ability for efficient and sustained transmission among humans, an influenza pandemic could result, with potentially high rates of illness and death worldwide.”
<p>Typhus</p>	<p>Flea-borne typhus is a bacterial disease caused by <i>Rickettsia typhi</i> and possibly <i>Rickettsia felis</i>. Flea-borne typhus is considered endemic (always present) in areas of Los Angeles and Orange counties, but cases are also sometimes reported from other parts of California.</p> <p>A person can get typhus by coming in contact with infected fleas. The bacteria that causes typhus can be found in the feces of some fleas, and this bacterium can contaminate the skin surface when the flea bites. If the person scratches the flea bite area, some of the</p>	<ul style="list-style-type: none"> • Human cases of flea-borne typhus are reported worldwide, mainly in tropical and coastal areas. In the United States, most cases occur in Texas, California, and Hawaii, with an average of about 300 cases every year. • Although most illnesses are mild and undetected, many people infected with flea-borne typhus may have fever, headache, chills, and muscle aches six to 14 days after the flea bite. Some people may also get a rash that may begin on the chest and spread to the sides and back. Most of the reported cases in California have required hospital care.

	<p>bacteria in the flea feces can enter the person's blood stream.</p>	<ul style="list-style-type: none"> • The case–fatality rate of typhus is up to 40% in the absence of specific treatment. • Historically, typhus has occurred in crowded and unsanitary conditions, e.g. prisons, refugee camps, homeless camps. While it is unlikely a typhus outbreak will lead to a pandemic, flea-borne typhus is the only <i>Rickettsial</i> disease which can cause explosive epidemics in humans.
<p>Ebola Virus Disease (EVD)</p>	<p>Ebola Virus Disease (formerly known as Ebola haemorrhagic fever) is a rare and deadly disease in people and nonhuman primates. The viruses that cause Ebola are located mainly in sub-Saharan Africa.</p> <p>Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals such as chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines found ill or dead.</p> <p>People can get Ebola through direct contact with an infected animal (bat or nonhuman primate) or a sick or dead person infected with Ebola virus.</p>	<ul style="list-style-type: none"> • Ebola spreads through human-to-human transmission via direct contact (through broken skin or mucous membranes) with the blood, secretions, organs or other bodily fluids of infected people, and with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids. • Health and medical responders as well as other aid workers are at risk of infection when working with infected people and/or handling the dead. • There is evidence that Ebola can be sexually transmitted. • The average Ebola case fatality rate is around 50%.
<p>Zika</p>	<p>Zika is a mosquito-borne flavivirus spread mostly by the bite of an infected <i>Aedes</i> species mosquito (<i>Ae. aegypti</i> and <i>Ae. albopictus</i>). These mosquitoes bite during the day and night.</p> <p>In addition to mosquito bites, Zika virus is also transmitted from mother to fetus during pregnancy, through sexual contact, transfusion of blood and blood products, and organ transplantation.</p>	<ul style="list-style-type: none"> • Common symptoms include fever, rash, headache, joint pain, conjunctivitis (red eyes), and muscle pain. • Zika infection during pregnancy can cause certain birth defects including microcephaly and is associated with other pregnancy problems. • Several countries that have experienced Zika outbreaks recently have reported increases in people who have Guillain-Barré syndrome (GBS). <ul style="list-style-type: none"> ◦ GBS is an uncommon sickness of the nervous system in which a person’s own immune system damages

the nerve cells, causing muscle weakness, and sometimes, paralysis.

- There is no vaccine or medicine for Zika.

I. PURPOSE, SCOPE, SITUATION AND ASSUMPTIONS

A. Purpose

The Annex details roles and responsibilities for the managed response to a pandemic emergency and can be used in conjunction with other plans designed for the safety and protection of the population. Organizations, operational concepts, responsibilities, and procedures regarding public health response capabilities are defined within this Annex.

The purpose of the Pandemic Annex is to enable the City of Los Angeles to respond effectively and efficiently to ensure that essential operations are maintained during a seasonal or influenza pandemic or a pandemic stemming from another virus or disease.

The City of Los Angeles' objectives during a seasonal or pandemic influenza or other virus-type event are:

- To reduce transmission of the virus strain among staff, clients, and partners.
- To minimize illness among staff and clients.
- To maintain mission-critical operations and services.
- To minimize social disruptions and the economic impact of a pandemic event.

This Annex will support and enhance each Department's continuity of operations planning efforts. The Annex has been developed to meet the following objectives:

- Provide a concept of operations and identify roles and responsibilities for each appropriate department within the City of Los Angeles;
- Define communication and coordination guidelines for rapid notification and response of City departments, stakeholders and the public in the event of a seasonal and/or pandemic emergency;
- Identify actions that can be accomplished within a few minutes to a few days to mitigate any adverse public health impacts;
- Describe roles and responsibilities related to public health issues between local, state and federal responding agencies and organizations;
- Detail the interagency coordination related to public health incidents between local, state and federal responding agencies and organizations;
- Provide a flexible, scalable approach; and
- Ensure consistency in local, state, and federal responding agencies and organizations emergency response plans and operations.

B. Scope

The scope of this Annex is applicable to Los Angeles City departments with Emergency Operations Organization (EEO) responsibilities and other departments with essential resources. Of particular importance to this document are:

- City Departments with emergency public safety functions;
- City Departments having routine interaction with the public; and
- City Departments performing emergency public safety or other critical services.

C. Situation Overview

Location

The City of Los Angeles covers 498 square miles with approximately 468 square miles of land (214 square miles of which are hills and mountains) and approximately 29 square miles of water. The San Gabriel and Santa Susana Mountains bound the City on the North and the Santa Monica Mountains extend across the middle of the City. The Palos Verdes Hills and Pacific Ocean bound the City on the South and West.

Demographics

According to the California Department of Demographic Research Unit's "*E-1 Population Estimates for Cities, Counties, and the State*"², the 2016 population estimate for the City of Los Angeles is 4,030,904, with approximately 8,094 persons per square mile.

The City of Los Angeles is one of the most diverse cities in the world. Angelenos come from dozens of countries, speak nearly 200 languages, and represent a wide range of religions and ethnicities. The community members who live, work, and play in Los Angeles include persons with disabilities and others with access and functional needs. The term "people with disabilities" refers to a protected class; protected from discrimination as defined by federal civil rights laws such as Americans with Disabilities Act (ADA) and other state civil rights protections that detail the right to equal participation to enjoy and use services. Civil rights definitions protect a broad group of people who meet specific criteria for participation in the class.

"People with disabilities and others with access and functional needs" is inclusive of broad and diverse groups of people who also directly benefit from physical, communication, and program access. This includes people who may or may not meet the definitions of civil rights laws or some of the 60 plus diverse definitions of disability.³

By accommodating the needs of "people with disabilities and others with access and functional needs," a much larger portion, estimated to be up to 50% of the City's population benefits (people of all ages with vision and hearing loss, physical disabilities, mental health disabilities, developmental, intellectual and other cognitive disabilities, behavioral health issues, people with learning, understanding, remembering, reading, and speech and mobility limitations, and people

² California Department of Finance, E-1 Population Estimates for Cities, Counties, and the State, January 1, 2015 and 2016

³ *Developing and Maintaining Emergency Operations Plans. Comprehensive Preparedness Guide (CPG) 101*, version 2.0 ed. (n.p.: U.S. Department of Homeland Security, Federal Emergency Management Agency, 2010).

from diverse cultures; who have limited English proficiency or are non-English speaking; and who are transportation disadvantaged).⁴

Vulnerabilities

The City of Los Angeles recognizes that disasters may exhaust local resources. The City continues to develop, update and/or maintain memorandum of understandings (MOUs), memorandum of agreements (MOAs), and contract amendments with private vendors to increase response capability and available resources.

Factors to consider are the type of disaster, the population density, and the terrain in areas of Los Angeles. In some instances, the consequences of a disaster along with terrain, and the geographical area, may impact the effectiveness of notification systems. The City of Los Angeles has multiple, accessible, redundant warning and notification systems that it will utilize to reach the public for warnings, notification, and support.

Due to the population density and terrain of the City of Los Angeles, the City recognizes that, despite a good faith effort, it may not have the capabilities or resources to reach every individual in terms of public warnings, notification and/or support.

Past Occurrences

Pandemic Influenza

Spanish Flu (1918–1920)

The 1918 flu pandemic, commonly referred to as the Spanish Flu, was a category 5 influenza pandemic caused by an unusually severe and deadly Influenza A virus strain of subtype H1N1. Older estimates say it killed 40 to 50 million people worldwide, while current estimates say 50 to 100 million people were killed. This death toll was caused by an extremely high infection rate of up to 50% and the extreme severity of the symptoms. The symptoms were so unusual that initially it was misdiagnosed as dengue, cholera, or typhoid. The majority of deaths were from bacterial pneumonia, a secondary infection caused by influenza. An unusual feature of this particular flu was its effect on otherwise healthy young adults, with 99% of the deaths occurring in people under 65, and more than half of the deaths occurring in young adults aged 20 to 40 years old. The total mortality of the 1918 to 1919 pandemic is not known, but it is estimated that up to one percent of the world's population was killed.

Asian Flu (1957–1958)

The "Asian Flu" was a category 2 flu pandemic outbreak of avian influenza that originated in China in early 1956 and lasted until 1958. It originated from mutation in wild ducks combined with a pre-existing human strain. The death toll in the United States was approximately 69,800 people. The elderly population was particularly vulnerable to this strain. Death toll estimates vary widely depending on source, ranging from one million to four million deaths worldwide.

⁴ *Developing and Maintaining Emergency Operations Plans. Comprehensive Preparedness Guide (CPG) 101*, version 2.0 ed. (n.p.: U.S. Department of Homeland Security, Federal Emergency Management Agency, 2010).

Hong Kong Flu (1968–1969)

The Hong Kong Flu was a category 2 flu pandemic caused by a strain of H3N2. The Hong Kong Flu pandemic of 1968 and 1969 killed an estimated one million people worldwide. Those over the age of 65 had the highest death rates. In the United States, there were approximately 33,800 deaths.

Influenza Type A, Subtype H1N1 (Swine) Flu (2009)

The 2009 Flu Pandemic is a global outbreak of a new strain of Influenza A Virus Subtype H1N1, identified in April 2009 and commonly referred to as swine flu, which infects and is transmitted between humans. It is thought to be a mutation; more specifically, a re-assortment of four known strains of Influenza A Virus Subtype H1N1. The WHO officially declared the outbreak to be a "pandemic" on June 11, 2009, but stressed that the new designation was a result of the global "spread of the virus," rather than its severity.

Seasonal Influenza

Seasonal Flu 1999-2000

Influenza activity began to increase unexpectedly in mid-December, approximately four weeks earlier than in the 1997 to 1998 season and seven to eight weeks earlier than the 1998 to 1999 season. By most accounts, the 1999 to 2000 flu season was one of the worst on record.

Seasonal Flu 2003-2004

Both locally and nationwide, the 2003 to 2004 season peaked several weeks earlier than expected. Even more surprising and unusual was how widespread and simultaneously activity peaked; instead of peaking sporadically across the nation, nearly all states reported their peak activity at about the same, and again, earlier in the season than expected. The 2003 to 2004 season was one of the most severe influenza season to hit the United States in many years.

Zika Virus

Zika virus disease became a nationally notifiable condition in 2016. From January 1, 2015, to June 21, 2017, over 5,000 Zika cases were reported in the United States, with over 100 cases identified in Los Angeles County.⁵ The County was identified by the CDC and in published research as a jurisdiction at increased risk for local Zika transmission, in part because of high rates of travel both domestically and internationally between Los Angeles and other parts of the country and world. In 2018, no local mosquito-borne Zika virus transmission was reported in the continental United States.⁶

Ebola Virus Disease (EVD)

In late 2014, the first cases of Ebola in the United States were confirmed. Earlier that year, the largest Ebola epidemic in history had begun in West Africa. Two and a half years after the first case was discovered, the outbreak ended with more than 28,600 cases and 11,325 deaths

⁵ Los Angeles County OA Zika Virus Readiness, Response and Recovery Plan: Concept of Operations (CONOPS). 2017.

⁶ Centers for Disease Control and Prevention. Zika Virus Prevention and Transmission. <https://www.cdc.gov/zika/prevention/index.html>

worldwide. Overall, eleven people in the United States were treated for Ebola during the 2014 to 2016 epidemic. The majority of the those affected by Ebola in the United States were medical workers.⁷

Typhus

A rise in flea-borne typhus was identified in the Los Angeles region in mid-2018, with a majority of cases occurring in individuals experiencing homelessness and/or living or working in the downtown area. High concentrations of infected fleas, rats, feral cats and opossums in areas of the city have exacerbated the spread of the disease.

D. Assumptions

This Annex was created to integrate the concepts and structures defined by the National Incident Management System (NIMS), the California Standardized Emergency Management System (SEMS), and the National Incident Command System (ICS). All City, county, state, and federal processes, procedures, and protocols reflected or referenced in this document were current as of the date of approval of this Annex.

The course of action in response to serious seasonal or pandemic influenza will be governed by many factors that cannot be fully known in advance. The objectives and activities contained in this Annex are based on scientific data, historical events and recommendations available at the time of this writing. The planning assumptions and principles are as follows:

- That a serious seasonal or pandemic flu or other virus is inevitable, but when it may occur cannot be predicted.
- A serious seasonal or pandemic flu or other virus is likely to affect everyone in the City of Los Angeles, Los Angeles County, California and the United States, and can greatly impact “business as usual” in any sector of society or government.
- A serious seasonal or pandemic flu or other virus will place a great strain on existing health care resources and will rapidly take on substantial political, social, and economic dimensions.
- Because of high rates of international travel and many ports of entry in the City and County of Los Angeles, as well as the country at large, there may be very little time between the identification of a new virus and human cases of the virus in the United States.
- Outbreaks are expected to occur simultaneously throughout much of the United States, limiting mutual assistance and the potential to utilize resources provided by neighboring cities, counties, and states.

⁷ Centers for Disease Control and Prevention. 2014 – 2016 Ebola Outbreak in West Africa. <https://www.cdc.gov/vhf/ebola/history/2014-2016-outbreak/index.html>

- Properties of the novel virus, including virulence, principal mode of transmission, timing and duration of viral shedding, and attack rate in different risk groups may differ from those of seasonal virus strains and will be unknown until the novel virus emerges and its impact is assessed.
- Depending on the ability of a novel virus to produce an infectious disease in an organism, illness may occur among ten percent to 35% of the population. Approximately 11% of those infected will need hospitalization and approximately two percent will die.
- A pandemic is likely to occur in “waves” of infection, each wave lasting approximately eight to 12 weeks and separated by weeks of inactivity. An influenza pandemic could last from 18 months to several years.
- Special and vulnerable populations will be assessed and included within the planning, response, containment, and recovery process.
- Antiviral medications may be in limited supply and/or resistant to the virus.
- When antivirals and vaccines become available, they will be allocated either on a target group or goal area basis. Pandemic pharmaceutical responses (e.g., vaccination and antivirals) may be unavailable and/or limited, and non-pharmaceutical responses (i.e., strict adherence to respiratory hygiene, hand washing, self-isolation, and social distancing) will be the most effective preventive and control measures and strategies to limit virus transmission.
- The Los Angeles County Department of Public Health (LACDPH) will be the lead agency in management of a serious seasonal or pandemic influenza or other virus outbreak and will promote and coordinate the use of vaccines or antivirals based on their availability and the best scientific evidence at the time.
- Decisions about non-pharmaceutical community containment measures will be made in an atmosphere of considerable scientific uncertainty. Containment measures must be adapted to the epidemiologic context of each phase of the pandemic.
- Activities identified in any given pandemic phase are not necessarily completed during that phase; activities started in one phase may continue into subsequent phases.
- The ability of the federal government to support the LACDPH will be limited at the onset of a serious seasonal or pandemic outbreak and may continue to be limited for an extended period. As such, local communities will have to address the pharmaceutical and non-pharmaceutical community containment effects of a pandemic with available resources.

- Planning for continuity of governance at the state and local levels and continuity of operations (for the private sector) is an essential component of pandemic preparedness.
- Coordination with state and federal agencies and representatives on pandemic activities is essential for an effective response.

II. CONCEPT OF OPERATIONS

The concept of operations for public health emergency management is based on the four-phase emergency management cycle. The response to a pandemic public health emergency is dependent upon coordinated efforts and a focus on incorporating public health planning into wider emergency management planning and activities. Table 3 displays each phase of the emergency management cycle and its accompanying activities as related to public health and pandemic planning.

Table 3: Emergency Management Cycle for Pandemic / Public Health Planning

Phase	Description	Time/Duration
Mitigation	Mitigation describes the actions taken to help reduce or eliminate long-term risks caused by hazards or disasters, including potential pandemics and other public health emergencies. Mitigation measures for pandemic may include public health awareness campaigns in multiple accessible formats, vaccination fairs, teleworking, shift staggering, and a number of other preventative actions. All agencies and departments should incorporate basic public health mitigation into their routine departmental operations.	Mitigation activities should take place all year round and should be increased as flu season approaches, and if and when there is evidence of increased virus or disease outbreaks.
Preparedness	Preparedness is the continual cycle of planning, training, exercising, testing, evaluating, and improving incident response capability and capacity. The City EMD, working in conjunction with LACDPH, will notify City departments to begin preparedness activities as flu season approaches and/or in the case of an emerging infectious disease outbreak that could affect the region.	Generally, preparedness activities will occur at the start of flu season.
Response	The response phase of emergency management houses “the capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.” The City EMD, working in conjunction with LACDPH, will notify City departments to begin response activities upon identification of a virus with pandemic potential and/or in the case of an emerging infectious disease outbreak that could affect the region.	Response activities will occur upon identification of a novel (new) virus that could lead to a serious seasonal or pandemic flu or other virus outbreak.
Recovery	Recovery is composed of the core capabilities necessary to assist communities affected by an incident to recover effectively. Recovery from a pandemic emergency will most likely be focused on reducing the economic impacts of a reduced workforce. Health and medical services including mental health will also be necessary for a potentially extended duration of time depending on the specifics of the incident and the extent to which it affects the local community.	Recovery activities will occur when an advisory of a pandemic or seasonal flu outbreak is in the waning stages.

Response to a pandemic and/or related public health emergency will be coordinated and implemented based on the initial size-up, initial response, extended response, and recovery activities required by the incident and as detailed below.

A. Initial Size-Up

The Initial Size-Up Phase of response occurs when pre-identified stakeholders take precautionary measures to ensure response capability or take immediate mitigation measures. The best initial action for the public in the case of seasonal or pandemic virus outbreak is to take appropriate hygiene precautions and listen for instructions from local public health authorities.

In the case of a seasonal and/or pandemic outbreak, it may be necessary to facilitate the response of critical assets. Response to a public health emergency will occur in various departments and agencies throughout the City and County of Los Angeles; therefore, advance planning is required to establish mutual aid agreements and response protocols. The following agencies should be notified:

- The EMD Duty Officer/Duty Team can be contacted at 213-200-6414 to facilitate coordination and notification of City resources. EMD will contact the appropriate personnel, additional departments, and resources for assistance.
- LACDPH can be contacted at 213-240-7941.
- Notification to the United States Department of Health and Human Services (HHS) and FEMA will activate Emergency Support Functions (ESFs) in support of the event. The Secretary of the Department of Health and Human Services can declare a public health emergency if necessary.

In addition, all City Departments will follow the policies and procedures as outlined in their individual Department's Emergency Plan regarding the release, recall or assignment of personnel in an emergency situation related to public health. Departments will begin to implement their Department Emergency Plans and perform personnel accountability, including determining the release, recall or reassignment of personnel. Departments will also take precautionary measures to ensure response capability or take immediate mitigation measures.

B. Initial Response

Initial response actions will typically be provided from LACDPH and the City of Los Angeles Emergency Management Department. Information related to the virus and its effects on human populations as well as instructions on hygiene, social distancing, and other relevant details will be released to the public, in multiple accessible formats, as part of the initial response. Public information includes electronic communications compliant with Section 508 of the Rehabilitation Act and printed material available in multiple accessible formats.

LACDPH and the City of Los Angeles may activate their respective Emergency Operations Centers (EOC)/Department Operations Center (DOC) to identify and coordinate necessary resources. As soon as the EOC/DOC is activated, it will provide the coordination of resources to support the incident and the situational awareness for all supporting agencies.

C. Expanded Response

Distribution of prophylactic drugs to the City population will be at the direction of the Los Angeles County Health Officer. Upon such direction, medical point of dispensing (M-POD) sites will be utilized at points throughout the City. For further information regarding M-PODs, please refer to the Medical Points of Dispensing Implementation Guidelines for a program summary.

D. Immediate Recovery

The key objectives of recovery from a pandemic incident are to restore baseline levels of public health (i.e., curtail the number of new infection cases) and to restore jobs, services and facilities quickly and efficiently. All actions described in the response phase as secondary emphasis are actually recovery efforts. These include restoration of vital services (and public access to those services) that may have been negatively affected by high rates of absenteeism and/or a reduced workforce.

After a pandemic, fatality management will be one of the most demanding aspects of the response. A large number of fatalities may overwhelm the normal Medical Examiners/Coroners system. A respectful, culturally sensitive plan for fatality management, despite diminished capacity of health system infrastructure, will have a direct impact on the citizens' perception of the government's ability to manage the emergency and the resilience and recovery of the community and the nation.

Population monitoring activities and any necessary decontamination services should remain flexible and scalable to reflect the prioritized needs of individuals and availability of resources at any given time and location.

E. Documentation and Time-Keeping

During an emergency situation or incident, it is important to keep specific records related to staff assignments and costs, related to the response to and recovery from the emergency/incident. Each department has their own internal processes for ensuring proper documentation of actions, incident specific cost tracking, personnel time keeping, and record retention of these documents.

In accordance with standard cost accountability practices for unique events, man-made and/or natural disasters, all City Departments are required to document their financial costs of labor, materials and equipment in addressing the event. The Office of the CAO is the Applicant's Authorized Representative to CalOES and FEMA. Financial tracking and management will be coordinated through Group 10 of the CAO Disaster Grants Finance and Administration Section and appropriate units in accordance with the ICS as required by SEMS and NIMS.

Each City department, proprietary and City Council controlled agency operates their respective accounting operations/practices within the guidelines of the Mayor's Executive Directives, the California Natural Disaster Assistance Act and the Federal Code of Regulations Title 44 of the Stafford Act to maximize potential reimbursement eligible costs and minimize ineligible costs.

III. Organization and Assignment of Responsibilities

Successful emergency management requires that the City have the ability to effectively coordinate every available resource (public and private) during a crisis. Accomplishing this task requires multifaceted interdepartmental and inter-agency cooperation and the resolution of complex operational, legal, legislative and administrative issues.

The EOB supervises the EOO during all periods of emergency preparation, response and recovery. The Los Angeles Administrative Code empowers the EOB to make and enforce all necessary rules and regulations necessary for governing the EOO. EOO policies and procedures are contained in the Emergency Operations Master Plan and Procedures (Master Plan), its many annexes, and the EOO Policy and Procedures Manual.

During a declared emergency the Mayor, as EOO Director, is authorized to promulgate, issue and enforce rules, regulations, orders and directives which are considered necessary for the protection of life and property (e.g., curfews, curtailing the sale of dangerous products, commandeering personnel and property, etc.).

Upon receipt of official warning of an impending or threatened emergency, or upon the declaration of a local emergency, the EOO is immediately activated and all necessary personnel, as the Mayor may direct, are called into active service. The Mayor's oversight of EOO activities is normally accomplished through coordination with the EOB.

In the case of a pandemic or other public health-related emergency incident in the City of Los Angeles, the Los Angeles County Department of Public Health will be the lead agency with the City Emergency Management Department as support. The responsibilities of the City and County of Los Angeles, as well as the State of California, the federal government, and non-governmental organizations are detailed below. Roles and responsibilities for additional City departments can be found in Appendix B: Roles and Responsibilities.

A. City of Los Angeles

Emergency Management Department (EMD)

i. Reconnaissance and Information Gathering

a) Fact Gathering

- EMD Public Health Liaison, Duty Officer and Duty Team will obtain information from department sources.
- Direct staff in collecting and consolidating ongoing reconnaissance information from field units, the ICP and other available information sources.
- If the EOC is activated, the Situation Status Unit of the Planning Section will gather information.

b) Assessment

- Work with other Departments to determine the scope of the incident and its impact on City functions and facilities, as well as residents.

- The Situation Status Unit of Planning Section will assess and vet information from all sources (City Department notifications, memos, media, etc.)
- c) Information Sharing
 - EMD will facilitate information sharing between the City of Los Angeles and the County Department of Public Health. This is typically done via conference call initiated by the Public Health Liaison and/or the EMD Duty Officer.
 - Should the City EOC be activated, the Situation Status Unit of the Planning Section will present a situational status report to management staff.

ii. Incident Stabilization

- a) Incident Response
 - The EMD Duty Officer and Duty Team coordinate and execute the processes to activate the City EOC in accordance with EMD standard operating procedures.
 - Relevant stakeholders, including the Mayor, EOB members, and the LA County OEM Operational Area will be notified of activation of the City EOC and level of activation.
 - All critical functions provided by EMD in support of Citywide response/recovery are related to the operations of the EOC.
- b) Ongoing Information Gathering, Assessment and Sharing
 - The EMD Duty Officer will communicate with the County OEM Duty Officer to monitor the incident.
 - Monitor, record, evaluate and assess information obtained by LAFD and LAPD during initial size up to anticipate future emergency management needs of the departments.
- c) Assess Transition to Recovery and Demobilization
 - Develop incident objectives related to recovery and demobilization during the response phase of the incident.
 - Assess the capacity to de-escalate resources engaged in response operations and support.

iii. Initial Recovery

- a) Initial Recovery Operations
 - Evaluate long-term recovery needs, and facilitate resource coordination between stakeholders.
- b) Ongoing Information Gathering, Assessment and Sharing
 - Continuously improve situational awareness by evaluating and disseminating information from field operations and relevant stakeholders.
 - The Communications Division and Joint Information Center (JIC) will ensure that the City has a unified voice during a crisis.
- c) Demobilization of Department/Agency Resources
 - EMD management staff will evaluate its ability to demobilize resources and personnel, determine intervals or timelines for demobilization of resources and personnel and communicate plans to relevant Departments.
 - Determine a plan and time period in which assets will be relinquished and restoration to normal activity will occur. Reductions of resources may coincide with restoration of public services and lifting of temporary safety restrictions.

B. County of Los Angeles

Although the City of Los Angeles has no authority to assign responsibilities to county departments, many county departments are the primary agency responsible for providing certain services to the City of Los Angeles as related to public health. Those county departments are listed in the following, along with the services they are responsible for providing in the event of a pandemic and/or similar public health emergency.

Public Health, Los Angeles County Department of (LACDPH)

The LACDPH protects health, prevents disease, and promotes the health and well-being for all persons in Los Angeles County and is considered the City of Los Angeles' primary public health administrator. In pandemic emergencies, the LACDPH is responsible for activating plans related to pandemic response. LACDPH responds to all health emergencies and utilizes the following resources:

- a) Public Health Emergency Response Team (PHERT) – a multidisciplinary team of public health personnel deployed in the early stages of a potential public health event to assist in coordinating public health functions during a potential pandemic response. PHERT provides an on-scene presence, conducts rapid assessment, epidemiologic investigations, identifies risk factors for adverse outcomes, and targets resources for swift recovery and rehabilitation of affected communities. Any potential pandemic will require a rapid, coordinated response to assess the public health impact of such an event.
- b) Geographic Information Systems (GIS) – during an emergency requiring LACDPH DOC activation, the EPRP will be responsible for staffing and maintaining the planning section with GIS aid. In this role, EPRP will be responsible for all incident-related data gathering and analysis activities to investigate and control public health incidents such as disease outbreaks and environmental events.
- c) Mass Prophylaxis Unit – plans and prepares for the rapid distribution of protective medications to residents of Los Angeles County that have been exposed or may potentially be exposed to a disease agent in an outbreak or act of terrorism which requires access to and distribution of pharmaceuticals to the public through emergency health clinics called Points of Dispensing (POD).

Coroner, Los Angeles County Department of

It is the duty of the Department of Coroner to determine the circumstances, manner and cause of all violent, sudden, or unusual deaths. The Los Angeles County Department of Coroner is the lead agency on fatality management during a disaster. A mass or multi-fatality incident (MFI) results in a surge of deaths above what is normally managed by normal medico-legal systems. In the event of a pandemic within Los Angeles County, it may be several days before the Department of Coroner, County Morgue, or private mortuaries can respond, process and recover decedents. Federal or military assistance in fatality management may not be available to local jurisdictions in widespread incidents such as a pandemic.

Fire Department, Los Angeles County (LACoFD)

The LACoFD is a first-responder agency responding to life and health threats of varying scope and degree. The fire department will likely serve as a source of information from the field level back to the LACDPH DOC and/or City of Los Angeles EMD EOC.

Health Services, Los Angeles County Department of (LACDHS)

LACDHS serves the healthcare needs of the City's residents and encompasses clinics, the Emergency Medical Services Agency, rehabilitation services, and personal health services. The department runs four hospitals, as well as multiple comprehensive health centers. LACDHS has mobilized command centers that automatically engage in the event of a natural or other disaster. In event of a pandemic emergency, LACDHS will communicate updated health information to residents via the news media and coordinate with local law enforcement and related federal agencies.

Los Angeles County Emergency Medical Services Agency (EMS Agency)

The EMS Agency coordinates and supports the County's emergency medical services system with hospitals, fire departments, ambulance providers and other healthcare partners to provide emergency medical services and maintains the County's emergency supplies. The EMS Agency serves as the lead for the emergency medical services system in the County and is responsible for coordinating all system participants in its jurisdiction, encompassing both public and private sectors.

Sheriff's Department, Los Angeles County (LASD)

The Los Angeles County Sheriff's Department is the primary public safety agency for jurisdictions within the County of Los Angeles. The department maintains patrol divisions and homeland security, among many other responsibilities, for the County.

C. State of California

In California, the State's main role in any public health-related incident is to assist local government. The City of Los Angeles has no authority to assign responsibilities to State of California departments; however, many State departments have primary or support responsibilities for providing certain services to the City of Los Angeles. Those state departments are listed in the following, along with the services they are responsible for providing in the event of a pandemic emergency.

California Department of Public Health (CDPH)

CDPH is the state agency responsible for protecting and ensuring the health of Californians. CDPH manages Branches, Divisions, and Laboratories to support the response to and recovery from pandemic emergencies.

California Division of Occupational Safety and Health (Cal/OSHA)

Cal/OSHA develops and implements a statewide emergency action plan for responding to significant events anywhere in the State of California. Regional and District Emergency Response Investigation Teams will assist federal, state and local Incident Command Systems in managing and investigating significant events such as catastrophic incidents, accidents, uncontrolled releases of hazardous substances, natural disasters, or pandemics.

California Governor's Office of Emergency Services (Cal OES)

Cal OES exists to enhance safety and preparedness in California to protect lives and property by effectively preparing for, preventing, responding to, and recovering from all threats, crimes, hazards, and emergencies. Cal OES is the coordinating entity between agencies.

D. Federal Government

Although the City of Los Angeles has no authority to assign responsibilities to Federal agencies, many federal agencies provide support services to the City of Los Angeles. Those Federal agencies that may provide assistance include:

United States Department of Health and Human Services (HHS)

HHS is the United States government's agency for protecting the health of Americans and providing essential health services. In a pandemic emergency, HHS provides guidance for health care providers, primary physicians, with information on clinical diagnosis and treatment of illnesses during pandemic emergencies.

Centers for Disease Control and Prevention (CDC)

The CDC is one of the major operating components of the United States Department of Health and Human Services. The CDC Emergency Preparedness and Response website is CDC's primary source of information and resources for preparing for and responding to public health emergencies. The CDC Director's Emergency Operations Center (EOC) may be contacted at 770-488-7100. The CDC provides surveillance tools to monitor the state of health in the nation. These surveillance tools are crucial in the discovery and assessment of public health emergencies:

- a) National Notifiable Diseases Surveillance System (NNDSS)
NNDSS is a public health disease surveillance system that allows health officials monitor the occurrence and spread of diseases. Data is published in weekly and annual Morbidity and Mortality Weekly Report (MMWR).
- b) The Strategic National Stockpile (SNS)
The SNS is the pharmaceutical and vaccine stockpile to counter potential biological and chemical threats and threats from widespread diseases that could affect large numbers of persons in the civilian population. The SNS is managed jointly by the Department of Homeland Security (DHS) and HHS.

United States Department of Homeland Security (DHS)

DHS maintains one vital mission: to secure the nation from the many threats we face and ensure a homeland that is safe, secure, and resilient against terrorism and other hazards. DHS prevents terrorism and enhances national security, secures and manages federal borders and ensures resilience to disasters.

Federal Emergency Management Agency (FEMA)

FEMA is the lead agency for consequence management, which entails both preparedness for and dealing with the consequences of any incident that has large-scale impacts on the public. Although the affected State and local governments have primary jurisdiction for emergencies, a pandemic could stress the local healthcare system to the point of it being unable to effectively meet the

demands of the incident. In case of a pandemic emergency requiring more resources than the local jurisdiction can provide, requests for assistance will first go to the County level then to the State of California. If a pandemic incident exceeds the ability of the State to effectively manage and respond to, requests for assistance from the federal government may be required. FEMA is the lead Federal agency for providing assistance to State, Tribal, and local governments.

E. Non-Governmental Organizations (NGOs)

Although the City of Los Angeles has no authority to assign responsibilities to non-governmental organizations, many NGOs provide support services to the City of Los Angeles. Those NGOs that may provide assistance include:

- a) American Red Cross Los Angeles Region (Red Cross)
The Red Cross has responsibilities as outlined in the EOPs of Los Angeles County, State of California, and FEMA and provides services associated with mass care of populations. In the event of a pandemic incident requiring evacuation and sheltering, the Red Cross will engage in pre-determined operations for evacuation, mass care and sheltering and deploy an agency representative to the City EOC unless otherwise notified.
- b) Hospitals (Non-Profit and For-Profit)
Local hospitals and doctors will be the first to see illness in the event of a pandemic. Health care staff assists in early detection efforts by reporting unusual disease occurrence to the Public Health Department.

IV. DIRECTION, CONTROL, AND COORDINATION

This Pandemic Annex may be activated when the Mayor proclaims a local emergency, or if there is an automatic activation. An automatic activation follows a disaster or event that the City has identified, in advance, as one that requires an immediate response. Disasters requiring automatic activation are those events that pose an immediate threat to public safety.

Some portions of this Annex, such as the initial response, go into effect immediately following a pandemic-related event. The remainder of this Annex is only activated when the incident grows in scope to a point where activation of LACDPH's DOC and/or the City EOC is warranted. Activation of the EOC is not necessarily automatic or necessary with all pandemic and/or related public health incidents.

In advance of or simultaneous with the City plan activation, City departments and agencies will also activate their departmental public health-related plans.

V. ADMINISTRATION, FINANCE, AND LOGISTICS

Each department is required to have documented internal administrative procedures in place to track financial costs related specifically to the response and/or recovery of an incident. These procedures must include tracking all expenditures specifically related to the incident, including personnel costs such as straight and overtime payroll costs related specifically to the incident. Departments are also required to have in place, documented internal administrative procedures for requesting, fulfilling and tracking internal resource requests, department to department (DOC-to-DOC) resource requests, field to department (field-to-DOC) and department to EOC (DOC-to-EOC). Each department is responsible for the tracking of their own resources, including the tracking of personnel.

If an incident meets designated thresholds for Proclamation or Declaration of a State and/or Federal Emergency or Disaster, the Department of the Chief Administrative Officer (CAO), acting as the City's Authorized Agent, will develop a method for collecting financial documentation from departments as needed for submission as part of the City's reimbursement application process.

VI. AGREEMENTS AND UNDERSTANDINGS

Currently, there are no Contracts, Memoranda of Agreements or Understandings for this Annex.

VIII. AUTHORITIES AND REFERENCES

A. Authorities

i. Federal

- a) Americans with Disabilities Act of 1990, as amended. <http://www.ada.gov/pub/ada.htm>
- b) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) 42 U.S.C. §9601 et seq. (1980). <http://epw.senate.gov/cercla.pdf>
- c) Emergency Planning and Community Right-to-Know Act (EPCRA) 42 U.S.C. 116. <http://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/html/USCODE-2010-title42-chap116.htm>
- d) Executive Order 12656 of November 18, 1988.
- e) Homeland Security Act of 2002 (PL 107-296 Section 301) http://www.dhs.gov/xlibrary/assets/hr_5005_enr.pdf
- f) Homeland Security Presidential Directive-5 (HSPD-5). <http://www.gpo.gov/fdsys/pkg/PPP-2003-book1/pdf/PPP-2003-book1-doc-pg229.pdf>
- g) National Incident Management System. Department of Homeland Security. December 2008. http://www.fema.gov/pdf/emergency/nims/NIMS_core.pdf.
- h) National Response Framework. Department of Homeland Security. January 2008. <http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf>
- i) Public Health Service Act (PHSA)
- j) Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended. <http://www.fema.gov/about/stafact.shtm>
- k) Title 50, U.S. Code, War and National Defense
- l) Centers for Disease Control and Prevention's "National Strategy for Pandemic Influenza Implementation Plan."

ii. State of California

- a) California Code of Regulations, Title 19, Chapters 1 through 6, including:
 - Chapter 1, Standardized Emergency Management System. <https://law.resource.org/pub/us/ccr/gov.ca.oal.title19.html>
 - Chapter 6, Disaster Assistance Act Regulations. <http://www.kintera.org/atf/cf/%7BE475D1A4-FB9C-4135-AE8B-9310119C7F19%7D/CHAPTER%206%20%20CDAA.pdf>
- b) California Constitution. <http://law.justia.com/california/constitution/>
- c) California Emergency Services Act, 2006. <http://hazardmitigation.calema.ca.gov/docs/ESA-all8-06-final.pdf>
- d) California Health and Safety Code.
- e) California Code - Section 25507: CAL. HSC. CODE § 25507. <http://codes.lp.findlaw.com/cacode/GOV/1/3/d2/2/5/7/s25507>

- f) Safe Drinking Water and Toxic Enforcement Act of 1986, Proposition 65. Section 25249.5 and 25249.6. <http://oehha.ca.gov/prop65/pdf/P65LAW6.pdf>
- g) California State Emergency Plan.
<http://www.calema.ca.gov/PlanningandPreparedness/Pages/State-Emergency-Plan.aspx>

iii. County of Los Angeles

- a) Operational Area Emergency Response Plan <http://lacoa.org/PDF/OA%20ERP.pdf>
- b) Los Angeles County Department of Public Health’s “Biological Incident Plan Pandemic Influenza Guidelines.”
- c) Los Angeles County Emergency Medical Services Agency’s “Recommended Actions to Prepare EMS Providers for Pandemic Influenza.”

iv. City of Los Angeles

- a) City of Los Angeles Emergency Operations Plan:
 - <http://emergency.lacity.org/EmergencyCheckList/EmergencyPlansAnnexes/index.htm>
- b) Mayor’s Executive Directive No. 15, Emergency Management. Issued March 17, 2011.
- c) Mayor’s Executive Directive No. 16, Disaster Service Workers. Issued March 17, 2011.
- d) Mayor’s Executive Directive No. 17, Emergency Operations Center. Issued March 17, 2011.
- e) Mayor’s Executive Directive No. 18, National Incident Management System. Issued March 17, 2011.
- f) Mayor’s Executive Directive No. 19, Mayor’s Emergency Response Council. Issued March 17, 2011.
- g) Mayor’s Executive Directive No. 23, Individuals with Disabilities and Access and Functional Needs. Issued May 23, 2011.

B. References

i. City of Los Angeles Department Emergency Plans

- a) Los Angeles World Airports
- b) Los Angeles Department of Building and Safety
- c) Department on Disability
- d) City of Los Angeles Emergency Management Department
- e) Los Angeles Fire Department
- f) City of Los Angeles General Services Department
- g) Los Angeles Housing Department
- h) Los Angeles Police Department
- i) Port of Los Angeles
- j) City of Los Angeles Department of Recreation and Parks (RAP)
- k) City of Los Angeles Department of Public Works

l) Los Angeles Department of Water and Power (LADWP)

ii. Federal Emergency Management Agency (FEMA) Biological Incident Annex.

a) http://www.fema.gov/pdf/emergency/nrf/nrf_BiologicalIncidentAnnex.pdf

iii. Federal Emergency Management Agency (FEMA) Emergency Support Function (ESF) #10 – Oil and Hazardous Materials Response Annex.

a) <http://www.fema.gov/pdf/emergency/nrf/nrf-esf-10.pdf>

iv. 2012 Emergency Response Guidebook.

a) <http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Hazmat/ERG2012.pdf>

v. Local, Operational, and National COOP Plans and References

a) <http://www.fema.gov/about/org/ncp/coop/index.shtm>

Appendix A: Glossary and Acronyms

Antiviral Drugs: Antiviral drugs are a class of medications used specifically for treating viral infections. Like antibiotics for bacteria, specific antivirals are used for specific viruses. Unlike antibiotics, antiviral drugs do not destroy their target pathogen, they only inhibit their development.

Avian Influenza: Also referred to as bird flu, it is a disease of birds (e.g. ducks, chickens). Between 2003 and 2006 the H5N1 avian influenza virus has infected millions of birds. It is primarily a disease of birds a small number of people have also been infected after having close contact with birds.

Common Cold: Acute viral rhinopharyngitis, usually known as the common cold, is a contagious, viral infectious disease of the upper respiratory system, primarily caused by rhinoviruses. It is the most common infectious disease in humans; there is no known cure, but it is never fatal. Collectively, colds, influenza, and other infections with similar symptoms are included in the diagnosis of influenza-like illness. The viruses that cause the common cold and the flu are completely unrelated.

Contact: A contact is a term used to refer to someone who has been in close proximity with an individual who is, or is suspected of being, infected with an infectious disease like influenza.

H1N1: Influenza A virus subtype H1N1, is a subtype of influenza virus A and the most common cause of influenza (flu) in humans. Some strains of H1N1 are endemic in humans, including the strain(s) responsible for the 1918 flu pandemic, which killed 50-100 million people worldwide. Less virulent H1N1 strains still exist in the wild today, worldwide, causing a small fraction of all influenza-like illness and a large fraction of all seasonal influenza. H1N1 strains caused roughly half of all flu infections in 2006. Other strains of H1N1 are endemic in pigs (swine influenza) and in birds (avian influenza).

H5N1: H5N1 is the latest avian influenza virus subtype of concern and there appears to be little human immunity to it. The predominant winter strain of human influenza is H3N2. Most adults have some partial immunity to this strain, which caused a pandemic in 1968 when it evolved from avian influenza.

Hand Hygiene: A term that applies to the cleaning of one's hands. This is done with soap and water, hand sanitizer, or hand wipes. To kill an influenza virus hands must be washed with soap and water for 15 seconds and hand sanitizers or wipes must be used for 10 seconds and have an alcohol content of at least 60%.

Human-to-human transmission refers to the ability of an infectious disease to be passed continuously from one person to another. Some viruses can be transmitted between animals (animal-to-animal), some can be transmitted from animal-to-human (and vice versa), and some can be transmitted from human-to-human.

Infection control is a broad term used to describe a number of measures designed to detect, prevent, and contain the spread of infectious diseases. Some measures include hand washing,

respiratory etiquette, use of personal protective equipment (PPE), prophylaxis, isolation, and quarantine.

An **infectious disease**, or communicable disease, is caused by the entrance of organisms (e.g. viruses, bacteria, fungi) into the body, which grow and multiply there to cause illness. Infectious diseases can be transmitted, or passed, by direct contact with an infected individual, their discharges (e.g. breath), or with an item touched by them.

Influenza is a viral disease that causes high fever, sore throat, cough, and muscle aches. It usually affects the respiratory system but sometimes affects other organs. It is spread by infectious droplets that are coughed or sneezed into the air. These droplets can land on the mucous membranes of the eyes or mouth or be inhaled into the lungs of another person. Infection can also occur from contact with surfaces contaminated with infectious droplets and respiratory secretions. Also see seasonal, avian, and pandemic influenza.

Isolation is when sick people are asked to remain in one place (e.g. home, hospital), away from the public, until they are no longer infectious.

A **pandemic influenza**, or pandemic flu, occurs when a new subtype of influenza virus: 1) develops and there is little or no immunity (protection due to previous infection or vaccination) in the human population; 2) it is easily passed from human to human; 3) is found in many countries; and, 4) causes serious illness in humans.

Personal Protective Equipment (PPE) is specialized clothing or equipment worn to protect someone against a hazard including an infectious disease. It can range from a mask or a pair of gloves to a combination of gear that might cover some or all of the body.

Prophylaxis is an infection control measure whereby antimicrobial, including antiviral, medications are taken by a healthy individual (e.g. nurse, contact) to prevent illness before or after being exposed to an individual with an infectious disease (e.g. influenza).

A **quarantine** is when people who have been in close proximity to an infected person, but appear healthy, are asked to remain in one place, away from the general public, until it can be determined that they have not been infected.

Respiratory etiquette, or good coughing and sneezing manners, is one way of minimizing the spread of viruses and bacteria which are passed from human-to-human in the tiny droplets of moisture that come out of the nose or mouth when coughing, sneezing, or talking. Healthy and sick people should cover their nose and mouth when sneezing, coughing, or blowing their nose and then put the used tissue in the trash to prevent the spread of germs.

Seasonal influenza, commonly referred to as the flu, is an infectious disease. In the United States, flu season usually occurs between December and March. The influenza virus is one that has the ability to change easily; however, there is usually enough similarity in the virus from one year to the next that the general population is partially immune from previous infection or vaccination. Each

year experts monitor the influenza virus and create a new vaccine to address changes in the virus. For this reason, people are encouraged to get a flu shot each year. Also see influenza, avian influenza, and pandemic influenza.

Social distancing is an infection control strategy that includes methods of reducing the frequency and closeness of contact between people to limit the spread of infectious diseases. Generally, social distancing refers to the avoidance of gatherings with many people.

Table 4: Acronyms

Acronym	Full Name
ADA	Americans With Disabilities Act
CalEPA	California Environmental Protection Agency
Cal OES	California Governor's Office of Emergency Services
CAO	City Administrative Officer
CBRN	Chemical, Biological, Radiological, Nuclear
CDC	Centers for Disease Control and Prevention
CDPH	California Department of Public Health
CFR	Code of Federal Regulations
CONOPS	Concept of Operations
COOP	Continuity of Operations
CPG	Comprehensive Preparedness Guide
DHS	United States Department of Homeland Security
DMAT	Disaster Medical Assistance Teams
DOC	Department Operations Center
DPW	Department of Public Works
EAS	Emergency Alert System
EMD	Emergency Management Department
EMS	Emergency Medical Services
EMS Agency	Los Angeles County Emergency Medical Services Agency
EOB	City of Los Angeles Emergency Operations Board
EOC	Emergency Operations Center
EOO	Emergency Operations Organization
EOP	Emergency Operations Plan
EOS	Emergency Operations Section
EPA	United States Environmental Protection Agency
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
FNSS	Functional Needs Support Services

GIS	Geographic Information Systems
GSD	Department of General Services
HHS	United States Department of Health and Human Services
ICS	Incident Command System
IAP	Incident Action Plan
LACDHS	Los Angeles County Department of Health Services
LACDMH	Los Angeles County Department of Mental Health
LACDPH	Los Angeles County Department of Public Health
LACoFD	Los Angeles County Fire Department
LADBS	Los Angeles Department of Building and Safety
LADOT	Los Angeles Department of Transportation
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
LASD	Los Angeles County Sheriff's Department
LAWA	Los Angeles World Airports
MAC	Medical Alert Center
MFI	Mass or Multi-Fatality Incident
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
M-POD	Medical Point of Dispensing
NGO	Non-Governmental Organization
NIMS	National Incident Management System
NNDSS	National Notifiable Diseases Surveillance System
NRF	National Response Framework
OA	Los Angeles Operational Area
PHERT	Public Health Emergency Response Team
PIER	Public Information and Emergency Response
PIO	Public Information Officer
POD	Point of Dispensing
POLA	Port of Los Angeles
PPE	Personal Protective Equipment
PSAs	Public Service Announcements
PSI	Pandemic Severity Index
Red Cross	American Red Cross Los Angeles Region
SEMS	Standardized Emergency Management System
SNS	Strategic National Stockpile
SOP	Standard Operating Procedure

WHO	World Health Organization
UC	Unified Command

Appendix B: Roles and Responsibilities

In the case of a seasonal or pandemic influenza or other virus incident, primary public health response roles and responsibilities are performed by LACHDPH and the City of Los Angeles Emergency Management Department. City departments including the Los Angeles Police Department (LAPD), Department of Water and Power (DWP), Department of Transportation (DOT), and Department of Public Works may be requested for additional support and resources related to traffic and crowd control at PODs, POD security, and transport of vaccines and other medical supplies. Los Angeles World Airports (LAWA) also plays a role in response to a suspected or confirmed pandemic as related to travel advisories and virus and/or bacterial containment. All City departments are responsible for providing information to their staff related to public health infection control and vaccination programs, as well as planning continuity of operations for potential reduction in the workforce due to a pandemic event. Additional departmental responsibilities applicable to all City departments are as follows:

- Assign staff to review Department Continuity of Operations Annex.
- Assign staff to review Pandemic Annex.
- Provide staff with information regarding strategies like hand and respiratory hygiene.
- Maintain a supply of infection control products like hand-hygiene supplies, tissues.
- Provide staff with information on flu vaccination programs by LACDPH and Medical Services.
- Reviews travel advisories issued by CDC and consider when approving travel.
- Consider telecommunication and other accessible modes of communication to inform the public of measures to take in efforts to reduce spread of the virus.
- Consider mass public service announcements in multiple languages to reduce travel, increase participation and minimize the gathering of individuals.
- Consider staggering work shifts.
- Implement barriers for employees who have face-to-face contact with the public by providing services from behind a barrier, by telephone or at least 6 away from the client.
- Implement workplace cleaning measures for hard surfaces like door knobs, sinks, handles, railings, objects, and counters. Surfaces that are frequently touched with hands should be cleaned and disinfected often, preferably daily.
- When a person with suspected influenza or another virus is identified, disinfect their workspace.
- Encourage staff to stay home for seven days after the onset of symptoms, or 24 hours after symptoms end.

- Advise employees that if they start to feel ill, or observe another person exhibiting flu-like symptoms, to contact a supervisor immediately. Have supervisors use Suspect Influenza Case Form to evaluate the staff member. Contact Personnel Medical Services at (213) 473-6960 to ask for a consultation.
 - Be prepared to assist LACDPH in providing non-clinical, security, traffic and crowd control at PODs.
- Agencies and departments that have additional responsibilities during a suspected or confirmed pandemic incident are detailed in the table below.

Table 5: Roles and Responsibilities

Organization	Description	Key Roles and Responsibilities
<p>Los Angeles County Department of Public Health</p>	<p>The Los Angeles County Department of Public Health (LACDPH) is the lead agency in coordinating City public health functions. The Los Angeles County Public Health Officer has broad powers to address both seasonal and pandemic influenza and/or other pandemic emergency.</p> <p>Under California law, a local health officer who believes a contagious, infectious or communicable disease exists within the territory under his or her jurisdiction “<i>shall take measures as may be necessary to prevent the spread of the disease or occurrence of additional cases</i>” and to protect the public’s health (California Health and Safety Code Section 120175).</p> <p>NOTE: The Cities of Pasadena and Long Beach each have their own health departments and are responsible for public</p>	<p><i>In addition to the duties listed above:</i></p> <ul style="list-style-type: none"> • Surveillance – The County Public Health Department’s regularly monitors flu and flu-like illness activity through a wide array of surveillance methods. • Clinical Services – Laboratory-based surveillance will identify the predominant circulating types, subtypes, and strains of flu, aid clinical judgment, and help guide treatment decisions. • Limiting transmission - Isolation and quarantine may have limited use due to the short incubation period of influenza (one to four days) and the fact that flu transmission can occur before the onset of symptoms. Voluntary isolation and quarantine measures may include home isolation and asking workers with a fever to not go to work, closure of schools and work places with high incidence of influenza–like illness, and community-wide suspension of large public gatherings. • Communications – The foundation for effective communication is a set of key messages that can be used consistently to instill public confidence and generate an appropriate response to minimize risk and ensure a strong

	<i>health functions and decisions in their jurisdictions.</i>	<p>and rapid response. There are multiple risk communication audiences and communication channels that are vital for pandemic flu preparedness which include the general public, vulnerable population groups, hospitals, healthcare providers, policy makers, and public health officials.</p> <ul style="list-style-type: none"> • Emergency response – Flu affects and involves a variety of public and private agencies and organizations at the state, local and federal levels. Agencies must coordinate their activities and resources and share information in real time. Once the Health Officer has identified a new strain of flu virus with serious seasonal and/or pandemic potential, he may call upon County and City agencies to assist with the management of the public health response.
Health Services, Los Angeles County Department of (LACDHS)	LACDHS serves the healthcare needs of the City’s residents and encompasses clinics, the Emergency Medical Services Agency, rehabilitation services, and personal health services.	<p><i>In addition to the duties listed above:</i></p> <ul style="list-style-type: none"> • Mobilize command centers in the event of a pandemic or other public-health related emergency. • Communicate updated health information to residents via the news media. • Coordinate with local law enforcement and related federal agencies.
Los Angeles County Emergency Medical Services Agency (EMS Agency)	The EMS Agency coordinates and supports the County’s emergency medical services system with hospitals, fire departments, ambulance providers and other healthcare partners to provide emergency medical services and maintains the County’s emergency supplies.	<p><i>In addition to the duties listed above:</i></p> <ul style="list-style-type: none"> • Serve as the lead for the emergency medical services system in the County. • Coordinate all system participants in jurisdiction, encompassing both public and private sectors.

<p>City of Los Angeles – Emergency Management Department</p>		<p><i>In addition to the duties listed above:</i></p> <ul style="list-style-type: none"> • Be the central point of contact for the LACDPH. • Gather information from LACDPH and determine when to move from one phase to another. • Assign staff to review City Seasonal and Pandemic Annex and your Department Emergency Plan Pandemic Influenza Continuity of Operations Annex. • Coordinate POD activation with LACDPH. • Review the appropriate Phase Checklist.
<p>City of Los Angeles:</p> <ul style="list-style-type: none"> • Police Department • Department of Water and Power • Department of Transportation • Public Works Department 		<p><i>In addition to the duties listed above:</i></p> <ul style="list-style-type: none"> • Be prepared to assist LACDPH in providing non-clinical, security, traffic and crowd control at PODs. • Be prepared to assist LACDPH in providing trucks to transport vaccines and medical supplies to PODs and hospitals.
<i>Federal / Global Partners</i>		
<p>Centers for Disease Control and Prevention (CDC)</p>	<p>The CDC is an agency of the United States Department of Health and Human Services. It works to protect public health and safety by providing information to enhance health decisions, and it promotes health through partnerships with state health departments and other organizations. The CDC focuses national attention on developing and applying disease prevention and control (especially infectious diseases), environmental health, occupational safety and health, health promotion and prevention and education activities designed to improve the health of the people of the United States.</p>	
<p>Federal Emergency Management Agency (FEMA)</p>	<p>FEMA is the lead agency for consequence management, which entails both preparedness for and dealing with the consequences of any incident that has large-scale impacts on the public. Although the affected State and local governments have primary jurisdiction for emergencies, a pandemic could stress the local healthcare system to the point of it being unable to effectively meet the demands of the incident. In case of a pandemic</p>	

	emergency requiring more resources than the local jurisdiction can provide, requests for assistance will first go to the County level then to the State of California. If a pandemic incident exceeds the ability of the State to effectively manage and respond to, requests for assistance from the federal government may be required.
United States Department of Health and Human Services (HHS)	HHS is the United States government’s agency for protecting the health of Americans and providing essential health services. In a pandemic emergency, HHS provides guidance for health care providers, primary physicians, with information on clinical diagnosis and treatment of illnesses during pandemic emergencies.
World Health Organization (WHO)	The World Health Organization (WHO) is a specialized agency of the United Nations (UN) that acts as a coordinating authority on international public health. WHO uses a six-phased approach for incorporation of new recommendations and approaches into existing national preparedness and response plans.