SACRAMENTO COUNTY PUBLIC HEALTH

Pandemic Influenza Response Plan

An Annex to the Public Health Communicable Disease Outbreak Response Plan

Disease Control and Epidemiology Unit

3/17/2021

Acknowledgements

Sacramento County Public Health wishes to thank all county partners who participated in reviewing and improving this plan.
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Pandemic Flu Checklist

The Health Officer in consultation with Disease Control and Epidemiology Unit (DCEU) and Public Health Emergency Preparedness (PHEP) staff will make the decision to activate this plan.

- ❑ Convene Initial Assessment and Response Meeting
- ❑ Activate communication algorithm (Appendix K Notification and Alerting)
- ❑ Activate Public Health Coordination Center
- ❑ Alert appropriate staff to report to Public Health Coordination Center
- ❑ Communicate early with the Sacramento County Office of Emergency Services (OES) to find out if EOC will be activated, if so, coordinate with EOC and MHOAC
- ❑ Notify all partners of the plan of action
- ❑ Consult with County Counsel if a declaration of an local emergency is necessary
- ❑ Identify if other Response Plans need to be activated in relation to this one
- ❑ Initiate CAHAN alert as necessary
- ❑ Conduct press conferences as necessary with Public Information Officer (PIO)
- ❑ Conduct conference calls with hospitals and medical providers as necessary
- ❑ Coordinate with Behavioral Health Division for mental health services to responders and cases

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Approval of Plan

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Record of Distribution

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Handling information

The title of this document is the Pandemic Influenza Response Plan.

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2. SCPH staff will maintain and update this Plan. SCPH will review this plan at least biannually and update as required. Review and revisions to the plan should include information from corrective actions listed in exercise and real event after action reports (AARs), legislative updates, updates of relevant operational procedures, a review of practical applications, and updates of informational materials to all staff at all sites. Updates to telephone, fax, and email lists, personnel rosters, resource lists and physical changes that affect the implementation of this plan will also be conducted.

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Overview

Introduction

This plan is an annex to the Communicable Disease Outbreak Response Plan and reflects the unique natural history of Influenza. It should be used in conjunction with the Communicable Disease Outbreak Response Plan.

Influenza is a highly contagious viral disease. It causes seasonal epidemics each year with high morbidity and mortality numbers. Flu seasons are unpredictable and can be severe. The Centers for Disease Control and Prevention (CDC) estimates the number or flu-associated deaths have ranged from a low of about 3,000 deaths to a high of about 61,000 death in the United States (influenza seasons 1976/77-2019/20). The best way to prevent the flu is by getting a flu vaccination each year. CDC's Advisory Committee on Immunization Practices (ACIP) recommended on February 24, 2010 "universal" (six months and older) flu vaccination in the United States.

An influenza pandemic (or global epidemic) occurs when a new (novel) influenza virus subtype appears, against which no one is immune. This may result in several simultaneous epidemics worldwide with high numbers of cases and deaths. With the increase in global transport and urbanization, epidemics caused by a novel influenza virus are likely to occur rapidly around the world.

Purpose

The Pandemic Influenza Response Plan for Sacramento County (Plan) provides guidance to Sacramento County Public Health (SCPH) and local/regional partners regarding detection, response and recovery from an influenza pandemic. The Plan describes the unique challenges posed by a pandemic that may necessitate specific leadership, response actions, and communications mechanisms. Specifically, the purpose of the plan is to provide background and operational procedures for detecting and responding to an influenza pandemic in order to mitigate the impact on the residents of Sacramento County. This Plan is to be used in conjunction with the Communicable Disease Outbreak Response Plan and its annexes such as the Isolation and Quarantine Plan; the Medical Health Operational Area Coordinator (MHOAC) Guide, and Government Authorized Alternate Care Site Plan**.** This Plan is also an annex to the Communicable Disease Outbreak Response Plan.

Scope

During an influenza pandemic response, SCPH and regional partners will seek to achieve the following goals:

- Minimize the number of serious illnesses and deaths
- Minimize social disruption and economic losses

- Preserve continuity of essential functions (government and business)
- Minimize speed and extent of disease spread through prevention efforts

Situation Overview

The CDC has developed estimates of the impact pandemic influenza can have for our community. The following table uses these estimates and the population estimates of California and Sacramento County to quantify the impact pandemic influenza may have:

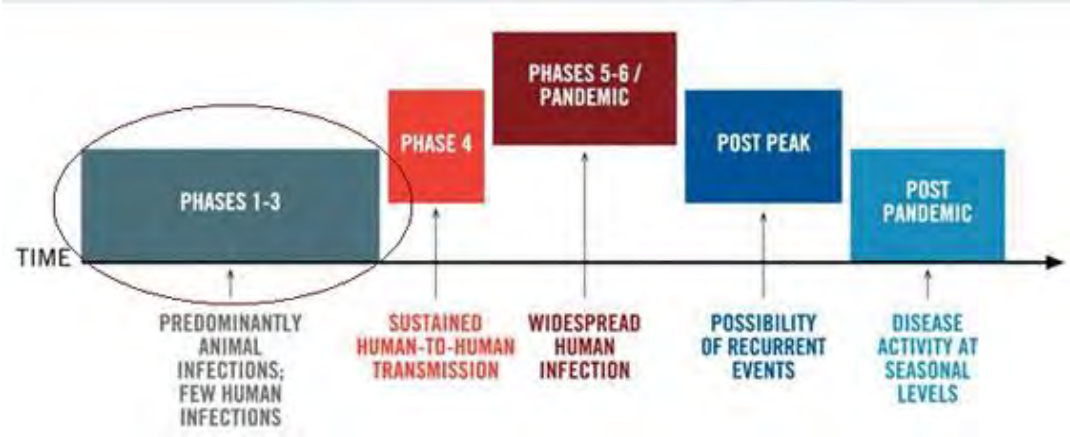
CDC Estimates of Percent of Population Affected by the Next Pandemic	**Number Affected in California** (estimated population 39,695,376)* Jan. 2020*	**Number Affected in Sacramento County** (estimated population 1,555,356)* Jan 2020*
Up to 35% of population will become ill with flu	13,893,382	544,375
Up to 19% of population will require out-patient visits	7,542,121	295,518
Up to 0.4% of population will require hospitalization	158,782	6,221
Up to 0.1% of population will die of flu-related causes	39,695	1,555

**Source: California Department of Finance Demographic Research Unit, Report E-1 Population Estimates for Cities, Counties, and the State January 1, 2020*

In 2009, the World Health Organization (WHO) and national health authorities revised the alerting phases for pandemic influenza. These phases are organized into five basic components of preparedness and response:

- Planning and coordination
- Situation monitoring and assessment
- Reducing the spread of disease
- Continuity of health care provision
- Communications

For purposes of consistency, comparability, and coordination of the national, state and local response, all jurisdictions will refer to the WHO pandemic alerting phases.



PHASE 1-3	PREDOMINANTLY ANIMAL INFECTIONS; FEW HUMAN INFECTIONS	**Phase 1** No animal influenza virus circulating among animals has been reported to cause infection in humans. **Phase 2** An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans, and is therefore considered a potential pandemic threat. **Phase 3** An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.
PHASE 4	SUSTAINED HUMAN-TO-HUMAN TRANSMISSION	**Phase 4** Human-to-human transmission of an animal or human-animal influenza reassortant virus able to cause community-level outbreaks has been verified.
PHASE 5-6 (PANDEMIC)	WIDESPREAD HUMAN INFECTION	**Phase 5** The identified human-to-human spread of the virus has caused sustained community level outbreaks in two or more countries in one WHO region. **Phase 6** In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in a different WHO region.
POST-PEAK	POSSIBILITY OF RECURRENT EVENTS	Levels of pandemic influenza in most countries with adequate surveillance have dropped below peak levels. Levels of pandemic influenza can rise again causing a second wave of disease activity in countries where peak levels had dropped.
POST-PANDEMIC	DISEASE ACTIVITY AT SEASONAL LEVELS	Levels of influenza activity have returned to levels normally seen for seasonal influenza in most countries with adequate surveillance.

Planning Assumptions

Pandemic influenza will be unlike any other public health emergency or community disaster. These assumptions include potential scenarios and impacts on Sacramento County.

1. An influenza pandemic will result in the rapid spread of infection with outbreaks throughout the world.
2. Sacramento County will not be able to rely on mutual aid resources, including state and federal assistance, to support local response efforts because communities will be impacted across the state and country simultaneously.
3. The pandemic is expected to last 12 to 24 months with several recurrent waves of outbreaks.
4. Susceptibility to the pandemic influenza or novel influenza virus will be universal prior to vaccination. After the pandemic, the novel virus is likely to continue circulating and contribute to seasonal influenza.
5. It can be expected that 25-40% of the workforce will be absent from work due to illness or caring for ill family members.
6. It is likely that vaccine shortages will exist and will not be available for six to nine months to produce adequate supply for the entire U.S. population, due to substantial lead times required for vaccine production once a novel strain has been identified. Some first doses of vaccine would start to become available after three months due to increased domestic manufacturing capacity in the US (per US DHSS Pan Influenza Plan 2017 Update, page 8).
7. Critical resources, including antiviral medications, vaccines etc. will be in extremely short supply and require prioritization County Health Officer in accordance with state and federal recommendations. Allocation of scares resources will be determined in conjunction/collaboration with other Health Officers in California Office of Emergency Services (CalOES) Mutual Aid and Administrative Region IV.
8. There will likely be significant disruption of public and privately owned critical infrastructure, including transportation, commerce, utilities, government services, public safety, healthcare systems, and communications.
9. It is expected that all sectors of business will develop internal continuity of operations/disaster plans that will be compatible with local government resources.
10. Community mitigation measures aimed at reducing the spread of the infection, such as social distancing, school dismissal, closure of community and recreational centers, other public gathering points, and canceling public events will need to be implemented during the pandemic. Containment measures will need to be adapted to the epidemiologic context of each phase of the pandemic response.

Constraints

Actions taken will be limited by the availability of supplies and number of responders available. Both may be severely low due to widespread disease and death.

Concept of Operations (CONOPS)

General

In an influenza pandemic, Sacramento County Department of Health Services will institute a command and control structure based on the Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the Incident Command System (ICS). SEMS, NIMS and ICS are described in detail in the Sacramento County DHS Emergency Operations Plan.

This Plan will be fully implemented according to SEMS, NIMS and ICS to ensure compatibility and coordination of operations between the Division of Public Health Operations Center (PHOC), Department of Health Services Emergency Operations Center (DEOC) and Sacramento County Emergency Operations Center (EOC).

The elements and activities within NIMS (Operations, Planning, Logistics and Finance/Administration Sections) in the context of a pandemic influenza emergency response are detailed in the Sacramento County Public Health Preparedness and Response Plan.

Detection and Activation

Detection

Sacramento County Division of Public Health (SCPH) may detect an event that would require the activation of this Plan from several sources. SCPH may be alerted by the California Department of Public Health (CDPH) or by federal partners with whom they regularly conduct public health business. In addition, the recognition of an emerging pandemic could result from local disease surveillance activities conducted by SCPH in conjunction with other County agencies (e.g., County Coroner) and local health care agencies (e.g., hospital systems).

In the event of H5N1 identification in birds in Sacramento County, the Agricultural Commissioner or the veterinary community might alert SCPH.

SCPH may become aware of a potential public health incident from the press or social media.

Activation

Activation of this Plan is based on the degree of communicability, lethality, and the extent of the spread of a novel influenza virus. SCPH continuously monitors the WHO and CDC evaluations of the status of H5N1 and other influenza strain transmissibility

and may, due to specific local needs and circumstances, decide to activate this Plan in advance of any recommendations from CDPH. SCPH may also preliminarily advised health care facilities to increase their infection control procedures to reduce the possibility of spread of infection.

At any time during a pandemic, the County Health Officer may ask the Department's Communications and Media Officer, or person acting in that capacity, to implement the Pandemic Influenza Communication Plan. The Pandemic Influenza Communication Plan is an annex to the existing Crisis and Emergency Risk Communication (CERC) Plan.

The Health Officer, upon recognizing an outbreak that requires response, will activate the communications algorithm (Appendix K) in the Communicable Disease Outbreak Response Plan which may include activation of the County Emergency Operations Center.
The County Health Officer will alert public health response partners, including but not limited to the local Medical Health Operational Area Coordinator (MHOAC), County Coroner, local ambulance providers, first responders, health care facilities, and health care providers. The California Health Alert Network (CAHAN) would be primarily used to disseminate these alerts.

The County Health Officer will evaluate the situation and determine whether to recommend that the County Emergency Operations Coordinator alert agencies and community organizations responsible for providing care and shelter, assisting vulnerable populations, security, worker safety, providing needed commodities, schools, and other agencies which would respond to a pandemic-based emergency.

Requesting Additional Resources

The County Health Officer will contact CDPH and may request a statewide conference call to discuss the status of the event, detection of cases in California, potential actions or recommendations by CDPH, planned statewide media messages, and to report on issues specific to Sacramento County. Actions will be directed towards limiting transmission and controlling potential morbidity and mortality associated with infection. Requests for mutual aid will be channeled according to NIMS to the EOC through the MHOAC.
The Sacramento County Crisis and Emergency Risk Communication (CERC) manual contains messages and strategies to release to the public during the pre-pandemic phases.

When this Plan is activated, 211 will be notified to provide information and referrals to the public.

The Mass Fatality plan may need to be implemented if mortality rates increase due to the pandemic.

Sustained Response

The duration of a pandemic influenza event is projected to exceed 12 months and may extend into 24 months with two or three peak waves of severity. A sustained emergency of this duration will seriously impact social stability, the ability to provide supplies to isolated or quarantined individuals, or individuals voluntarily remaining at home; dispose of remains, and impede local businesses to recover economically. The County Health Officer will continue to advise County Emergency Operations Coordinator about the progress of the pandemic. The Health Officer will coordinate with the Sacramento County Department of Health Services' (DHS) Behavioral Health Services Division via the Department Operations Center to respond to the psychological impact of a sustained event. Psychological first aid may be implemented by the Behavioral Health Services Division. County Employee Assistance Program (EAP) will also be a resources for County employees.

One of the critical needs during a flu pandemic will be to maintain essential community services. Sacramento County DHS has in place a Continuity of Operations Plan (COOP) that addresses which essential services will be continued, procedures for notification to staff and public during an event, and alternate work and service locations if needed. DHS also has in place a Department Emergency Operations Plan (EOP) that outlines the emergency operational procedures and named successors of leadership.

Demobilization

Demobilization will include a deliberate, planned contraction of scalable ICS structure, including release of surged staff. Demobilization may also include closure of Alternate Care Sites, and return of locations temporarily designated for isolation and quarantine to pre-pandemic uses, as applicable. The DOEC Incident Commander and SCPHO will decide the timing and scope of demobilization.

The SCPHO will work with the members of the health care system to determine the triggers for initiating any level of demobilizing the response and beginning to return to normal health care operations. This will likely be a tiered demobilization to decrease the impact on operations.

As each pandemic wave subsides, it will be necessary to determine which response functions can be demobilized, what preparations need to be made for the next wave, collect data, evaluate the response, and determine the changes that need to be made to improve the response to the next wave of pandemic. The County Health Officer will work with state and local partners to identify actions that were successful on managing the pandemic, and develop local action plans for the next wave.

Recovery

The decision to declare the end of the pandemic influenza emergency will be made by the SCPHO in a unified command environment in consultation with state and federal authorities. A complete evaluation of the pandemic influenza emergency will be conducted, especially for: the notification system; risk communication; internal and inter-agency communications; surveillance; vaccination; case and contact management operations; epidemiologic investigation of cases and vaccination status of the at-risk population; logistics for vaccine receipt, handling, and distribution; and safety and security. An analysis of the lessons learned will result in changes in the Communicable Disease Outbreak Plan, this annex and any other plans needed in the response.

Recovery activities may continue for several months as the community adjusts to a new normal after mass fatalities from a pandemic. Per the Sacramento County Emergency Operations Plan (EOP), Sacramento County Office of Finance and OES are the primary and secondary County Departments to oversee the Federal Emergency Support Function (ESF) #14 – Long-Term Community Recovery, respectively, to ensure systems are revitalized to support the basic needs of the community long-term.

DHS Divisions will participate in all recovery efforts related to its *primary* ESF (ESF #8 – Health and Medical Branch), including ongoing surveillance, epidemiology and investigation of influenza, patient adverse events and other associated health impacts (SCPH); provision of medications (all DHS Divisions) and/or provision of mental health services (Division of Behavioral Health) for patients discharged from the healthcare system.

SCPH plays a *secondary support role* to the Department of Human Assistance (DHA) for ESF #6 – Mass Care, Emergency Assistance, Temporary Housing and Human Services. This ESF includes ensuring the provision of adequate shelter, food, water, and non-medical care.

Roles and Responsibilities

The roles and responsibilities of the primary agencies involved in an emergency response are described in the Sacramento County Emergency Operations Plan Communicable Disease Outbreak Response Plan (page 18). The specific roles & responsibilities that these agencies would have in a Pandemic Flu response are outlined below.

Government Partners Roles and Responsibilities

It is expected that health care providers, essential service providers, schools, local government officials and business leaders will develop and incorporate procedures and protocols addressing influenza preparedness and response activities into their emergency response plans.

Governor's Office
The Emergency Services Act authorizes the Governor during a state of emergency to suspend any regulatory statute, or statute prescribing the procedure for conduct of state business, or the orders, rules, or regulations of any state agency, where the Governor determines and declares that strict compliance would in any way prevent, hinder, or delay the mitigation of the effects of the emergency. The authority to suspend statutes is unique to the Governor.

California Department of Public Health (CDPH)
CDPH coordinates planning and preparedness efforts, surveillance activities, and disease containment strategies at the state level and across mutual aid regions within California. CDPH is also responsible for operating a bio-safety level-3 laboratory, coordinating the receipt and distribution of pandemic information, distributing antiviral medicines and vaccines from the state and federal Strategic National Stockpile to local health departments, overseeing facilities and staff licensure and health care regulations, and informing the public on the course of the pandemic and preventive measures.

Centers for Disease Control and Prevention (CDC)
The CDC is responsible for national and international disease surveillance, communicating direction and information from the Federal government to the State and local public health agencies, investigating pandemic outbreaks, and overall monitoring the impact of a pandemic. The CDC acts as the national liaison to the World Health Organization (WHO) and assumes a lead role in disease investigation.

U.S. Department of Health and Human Services (HHS)
The responsibility of HHS is to provide overall guidance on pandemic influenza planning within the United States and coordinate the national response to an influenza pandemic. HHS works directly with State governments to ensure coordinated response efforts.

World Health Organization (WHO)
WHO is responsible for monitoring global pandemic conditions and providing information updates. WHO facilitates enhanced global pandemic preparedness, surveillance, vaccine development, and health response. WHO is the organization responsible for declaring a global pandemic phase and adjusting phases based on current outbreak conditions.

Sacramento County DHS and Other County Government Agencies and Departments
As an employer and provider of services, county government agencies and departments will implement continuity of operations plans to allow county business to continue in the face of absenteeism and need for response. All County employees may be called upon to serve as Disaster Service Workers during the pandemic.

Sacramento County DHS Division of Public Health
The Sacramento County Division of Public Health (SCPH) is the lead agency involved in planning and preparing for pandemic influenza and responding to the pandemic when it occurs.

Sacramento County Office of Emergency Services (OES)
OES operates the County Emergency Operations Center (EOC) according to SEMS/NIMS, coordinates responding agencies in agencies' respective ESF Functions, ensures availability of adequate resources, and requests additional mutual aid resources in the event of a major disaster or health emergency within the Operational Area.

Sacramento County Emergency Medical Services Authority (Local EMSA)
The local EMSA facilitates and coordinates planning activities, including the identification of Alternate Care Sites, prioritizing and providing patient transport, planning for surge capacity needs due to increased demand for service combined with increased employee absenteeism, and preparing responders for effective infection control. EMS trained medical response personnel in personal protective equipment and other disease and infection control measures. The local emergency medical services manager serves as the Medical Health Operational Area Coordinator (MHOAC) for distribution of resources throughout the operational area in the event of a disaster. The MHOAC processes all requests for medical resources.

DHS Communications and Media Officer
In coordination with the County Division of Public Health, the Communications Officer informs the public and media about the status of the emergency, mitigation steps, locations and procedures for receiving vaccinations and/or anti-viral medications.

Sacramento County Environmental Management Department (EMD)
EMD supports the delivery of messages regarding infection control, especially in medical settings, food establishments, and alternate care sites, and assists in the planning for disposal of infectious waste.

Sacramento County DHS Mental Health Services Division
The Division of Mental Health will address the psychological needs of health care workers, Disaster Service Workers, Sacramento County employees, and the community at large, including maintaining essential workers and increasing staffing capacity as necessary. The Division of Mental Health also trains and coordinates a core group of staff who respond to various emergencies as the Mental Health Disaster Area Response Team (MH-DART).

Sacramento County Sheriff's Department
The Sheriff's Department coordinates law enforcement mutual aid resources, enforces emergency directives of the Health Officer, and coordinates force protection for Strategic National Stockpile assets. The County Sheriff's Department and the Law Enforcement CD Advisory Committee (LECDAC) will serve as the local lead law enforcement committee in Sacramento County to support response to public health emergencies.

Sacramento County Coroner and Office of Vital Records
The Coroner is responsible for the Operational Area Mass Fatality Plan. The Office of Vital Records and the Coroner's Office will coordinate with hospitals, local funeral homes and mortuaries to ensure that death registration is done in a timely manner.

Sacramento County Counsel, District Attorney's office and Judicial System (where applicable)
Sacramento County Counsel will facilitate the development a Declaration of Emergency, Health Officer Orders, and other related disease containment orders. The District Attorney's office works with the SCPHO to enforce orders of Isolation and Quarantine. The Court System ensures that citizens are afforded due process as they are asked to comply with such orders.

Sacramento County Department of Human Assistance (DHA)
DHA is the lead County Department responsible for coordinating emergency non-medical care and sheltering, and food assistance. DHA coordinates these activities with the Office of Emergency Services and the American Red Cross.

Sacramento County Airport Systems
The County employees working at Sacramento International Airport will collaborate with Sacramento County Division of Public Health to evaluate and manage ill travelers taking off from and landing at the airports. Activities include distributing health information for travelers; establishing enhanced surveillance at the airport during the early stages of the pandemic; and implementing the cancellation or limitation of nonessential travel to or from Sacramento airports.

Local Law Enforcement
The main responsibilities of law enforcement will be to maintain social order and provide security. The CD Task Force, under the orders of the LECDAC will assist in the

enforcement of Health Officer's orders as necessary. Security needs will likely be at pharmacies, hospitals, alternate care sites, during closures of venues, and points of dispensing (POD) sites once vaccines or medications become available. Personal protective equipment needed for law enforcement will be determined by the SCPHO.

Local Governments (Cities)
Local governments should implement their continuity of government plans during a flu pandemic; take steps to limit the spread of flu within their workplaces; and cooperate with SCPH to provide resources for the pandemic flu response (e.g., vacant space for Alternate Care Sites, critical services provision, etc.). Local governments also have a direct role in coordinating emergency services, providing law enforcement and providing Disaster Service Workers in response to a pandemic influenza outbreak.

Fire Services
As critical first responders, City and County Fire Departments should implement their plan for increases in employee absenteeism due to pandemic flu and an increase in demand for services. Fire Services should implement their continuity of operations plans in the face of a flu pandemic; take steps to limit the spread of flu with their jurisdiction (e.g., "no work while sick" and personal hygiene practices); and cooperate with SCPH to provide resources for the pandemic flu response.

Community Partners Roles and Responsibilities

All partners should plan to increase infection control and other disease mitigation measures within their respective agencies/businesses and follow any SCPH guidance for implementing such measures.

Local Healthcare System Partners (Hospitals, Clinics, Providers)
Healthcare partners will be instrumental in detecting influenza, limiting the spread of disease, and providing treatment to affected individuals. Healthcare partners through the Sacramento County Healthcare Coalition have a Flu Pandemic Response plan. Some activities include:

- Exercise/maintain a pandemic flu plan that details surge capacity addressing staffing, bed capacity, and stockpiling of food, water, fuel, equipment and supplies;
- Conduct enhanced surveillance among patients, staff and visitors and comply with public health orders for detecting, preventing and reporting cases of pandemic flu;
- Implement appropriate infection control measures and develop/provide education and training to healthcare staff.
- Provide to SCPH estimates of quantities of vaccine for healthcare staff and patients and develop a vaccination plan for their staff.
- Cooperate in fatality management with the County Coroner;
- Participate in the Sacramento County Healthcare Coalition convened by the County's Public Health Emergency Preparedness and Response Program.

Established in 2007, all hospital systems in Sacramento County are partners in the Sacramento County Hospitals Emergency Preparedness Plan and Memorandum of Understanding (MOU). The purpose of this mutual aid agreement is to address gaps in resources needed by medical services to respond to a disaster.

Colleges and Universities

Colleges and universities will assign space for Alternate Care Sites and/or mass prophylaxis dispensing sites; provide basic survival services to students isolated in dormitories, and make academic plans should the university/college need to be closed for several months. Colleges and universities should have continuity of business plans that consider the likelihood of a flu pandemic; take steps to limit the spread of flu within their institution; and cooperate with SCPH to provide resources for the pandemic flu response (e.g., space for Alternate Care Sites, critical supply provisions, etc.).

Businesses

Local businesses should plan for continuity of operations in the event that infrastructure and other services are disrupted by employee absenteeism, a drop in customer base, and/or absenteeism in outside partners, services or other organizations. Business plans should prioritize critical activities and address how these activities will continue in the face of shortages in supplies, deliveries and staff.

Two important aspects, where applicable, will be to 1) provide essential products to the public (e.g., food, water, waste disposal, utilities, communications, and pharmacy merchandise) and 2) plan for the potential suspension of public assembly business services (e.g., entertainment venues, hotels, restaurants, etc.). Local businesses will play a key role in protecting the health and safety of their employees and customers by instituting protocols to limit the spread of disease in the workplace, and may be asked to provide resources for the pandemic flu response (e.g.., space for Alternate Care Sites, critical supply provisions, etc.).

Community and Faith-Based Organizations

Community and faith-based organizations will be responsible for their own continuity of operations planning in the event of an influenza pandemic. These organizations play a key role in providing support services to individuals, neighborhoods and their customer/client base during a pandemic and may be called upon for assistance within their communities as appropriate.

Schools (including Preschools, Child Care Centers, Family Day Care Providers)

All school districts and preschool and other child care providers should take steps to limit the spread of flu within their settings. Schools may need to be closed for as long as several months, and should have contingency options if ordered closed as part of a social distancing strategy (e.g., home schooling

lesson plans for parents or remote learning options; catch-up school calendars, etc.).

American Red Cross

During a pandemic flu event, the American Red Cross (ARC) will provide for feeding for isolated and quarantined individuals in shelters, either directly or by convening and collaborating with others who are willing to provide these services. The ARC will provide significant support to medical needs shelters and government authorized alternate care sites.

News Media

The news media have a primary role in providing public education during the alert period, as well as timely and accurate public information throughout the pandemic period. News media organizations will plan for their continued operations during a pandemic, addressing the issue of high absenteeism and, where indicated, providing personal protective equipment to personnel expected to work in a public setting.

Individual Residents

Individuals and families, in order to protect themselves and limit the spread of the disease, should take responsibility for keeping informed and taking appropriate common-sense precautions such as practicing good hygiene and having enough food and water in the home in case there are shortages. Individuals and families should also become familiar with isolation, quarantine, and social distance measures they may be required to take during a pandemic.

As part of the overall emergency preparation plan each household should plan for eventualities such as closure of daycare and school facilities, possible return of college-aged youth to the home, and care for elderly family members living alone. Health care and emergency responders may not be available to return home for extended periods of time.

Volunteers (Medical Reserve Corps)

The Sacramento Medical Reserve Corps (SMRC) engages medical professionals and support volunteers who want to donate their time and expertise to prepare for and respond to emergencies. SMRC recruits, trains, deploys, and retains volunteer health professionals and support volunteers who contribute their skills and expertise to support Emergency Management Systems already in place. SMRC members supplement and strengthen existing emergency and public health resources. SMRC members can be called upon in the event of a large scale disaster, public health emergency, hospital surge, or to provide medical related support to shelters. Throughout the year the SMRC also supports public health with flu clinics, participates in community disaster preparedness drills, staffs first aid stations at community events, provides health screenings at health fairs, and distributes health and emergency preparedness information at local events.

Direction, Control and Coordination

Administration

SCPH will operate under the Incident Command Structure. SCPHO will designate an Incident Commander for the response, who in turn selects Command Staff. ICS positions are assigned based on qualifications rather than seniority. ICS Position Descriptions can be found in the SCPH EOP. SCPHO or her designee will be the expert point of contact in the County Emergency Operations Center (EOC). The COOP will be implemented within the County as staff is deployed in response to the Pandemic.

Information Collection

Epidemiology and Surveillance

Components of the Influenza-Like Illness Surveillance System

CDPH collaborates with public and private institutions to obtain information about the occurrence of disease. During the influenza season (generally from October through May), the Sacramento County Disease Control and Epidemiology Unit (DCEU) receives continuous updates on the spread of the disease throughout Sacramento County as well as the entire State of California. Since the events surrounding and the effect of a pandemic influenza will be ever-changing as response to the pandemic occurs, specific surveillance efforts are not described in the sections below. Instead, definitions and activities that may occur during the different phases of a pandemic are described.

Types of Surveillance

The Sacramento County Disease Control and Epidemiology Unit conducts various surveillance activities designed to detect a new strain of influenza or other disease threats. These surveillance activities include:

Surveillance of reportable influenza cases: This consists of disease incident reporting of REPORTABLE COMMUNICABLE DISEASES §2500(j) (1), §2641–2643 by healthcare providers and infection control practitioners. Influenza deaths among persons age less than 18, all influenza outbreaks, and all novel strains of influenza are reportable by California law. An advisory from the Health Officer reminding providers of their duty to report cases is sent out at the beginning of each influenza season via the California Health Alert Network (CAHAN). This advisory will also provide instructions of locally reportable cases of influenza in the County. Severe influenza cases requiring hospitalization in the Intensive Care Unit (ICU) and deaths of all ages may be locally reportable depending on Health Officer discretion. Reporting of cases is accomplished by submitting communicable disease reports (CMRs) via facsimile or electronically via California Reportable Disease Information Exchange (CalREDIE), a State sponsored web-based disease reporting system, to Sacramento County. Urgent reports are called in immediately by clinicians to public health. The Health Officer may further expand on local reporting requirements and is likely to do so if a novel virus or other disease threat is anticipated. Influenza deaths submitted

for registration to the Sacramento County Office of Vital Records and checked on a weekly basis during the influenza season to ensure all reportable influenza deaths are being reporting in a complete and timely manner.

Coordination with State Health Department Surveillance of Sentinel Sites: California Department of Public Health conducts seasonal screening of various healthcare entities, both inpatient and outpatient, for influenza. Sacramento County receives routine reports from local participating providers during the influenza season on ILI. Sacramento County Public Health personnel will assist with recruitment of additional sentinel sites if needed.

Investigation of Severe Adult/Pediatric Respiratory Illness: California Department of Public Health conducts seasonal screening of laboratory confirmed influenza inpatient cases. To facilitate this process, Sacramento County Public Health personnel coordinate with hospital infection control practitioners to collect risk history information. Subsequently, the forms are shared with the California Department of Public Health.

Informal surveillance: SCPH maintains positive working relationships with community partners that encourages disease reporting and facilitates early detection of unusual disease patterns. In particular, *school nurses* and *hospital infection control practitioners* are key points of contact for this purpose. Collaborative discussions about disease patterns on a regional basis occur in quarterly meetings of the *Greater Sacramento Epidemiologic Association*, which consists of public health representatives, laboratories, infectious disease specialists, and others. Although there is no formal mechanism for using the *Regional Poison Control Center* for surveillance purposes, contacts have been established that would enable that system to be queried if circumstances called for seeking out additional information. CAHAN is used to query a wide range of health providers and other entities when more intensive short-term surveillance is needed. Similarly, EMSystem is used to rapidly query local hospital emergency departments regarding unusual patterns of illness.

Syndromic surveillance: Syndromic surveillance utilizes electronic data from traditional (e.g. emergency room chief complaints) and non-traditional (e.g. over-the-counter medication sales) sources to provide near real-time pre-diagnostic information. This information can be used to monitor disease trends as well as for the early detection of unusual trends in diseases and other conditions of public health concern, including outbreaks and possible biologic terrorist threats.

Sacramento County Public Health (SCPH) utilizes the CDC's National Syndromic Surveillance Program (NSSP) BioSense Platform to conduct syndromic surveillance. All of the large hospitals in Sacramento County submit information from their emergency departments to this system. The SCPH Epidemiology Unit uses this

information to monitor specific diseases and conditions (e.g. influenza-like illness, pertussis, heat-related illness) and to detect unusual trends.

Early Detection, Alerting, Monitoring and Surveillance for Pandemic Influenza
The goals of influenza surveillance are to detect the earliest appearance of a novel influenza virus in the County of Sacramento and to describe the epidemiologic features of novel virus in circulation. The DCEU is responsible for investigating and tracking possible, probable, and confirmed cases and their associated contacts. The Division of Public Health can mobilize additional staff to assist with investigations, triage, and reporting.

The following delineates surveillance activities during an influenza pandemic:

No Indication of Novel Virus Reported
Surveillance:

- The DCEU will continue to promote the use of syndromic surveillance for influenza-like illness (ILI) to identify increased influenza activity in the County. It is understood that ILI surveillance will not identify sporadic cases of a novel influenza virus. Currently the County of Sacramento has three providers reporting to the California Department of Public Health (CDPH). When needed, additional providers will be recruited to improve geographical representation of ILI activity.
- Continue to use CDC Epi-X for National Communication and the California Health Alert Network (CAHAN) for Statewide and regional communication among epidemiological and laboratory networks to share information regarding the detection and circulation of novel influenza viruses.

Novel Virus Alert Stage:
Novel virus has been detected in one or more humans; little or no immunity in the general population; potential but not inevitable precursor to a pandemic.

Surveillance:

- Monitor bulletins from Centers for Disease Control and Prevention (CDC) and CDPH regarding virologic, epidemiologic and clinical findings associated with new variants isolated within or outside the U.S.
- Assess the ability to expand the use of syndromic surveillance for influenza-like illness (ILI) to monitor increased influenza activity in the County and modify plan accordingly.
- Assess our ability to enhance surveillance activities for increased ILI activity and for ILI outbreaks in long-term care facilities.
- Assess our ability to enhance surveillance activities for increased ILI activity and for ILI outbreaks in schools.

- Continue to monitor weekly influenza deaths and report to CDC.
- Monitor BioSense data weekly for trends in influenza-like illness in hospital emergency departments
- Continue to monitor influenza activity via CDC Epi-X for National Communication and CAHAN for Statewide and regional communication.

Pandemic Alert Stage:
Novel virus demonstrates sustained person-to-person transmission and causes multiple cases in the same geographic area.

Surveillance:

- Activate enhanced surveillance activities. Ensure data quality and reliability and ensure feedback mechanisms are in place.
- Monitor daily bulletins from Centers for Disease Control and Prevention (CDC) and CDPH regarding virologic, epidemiologic and clinical findings associated with new variants isolated within or outside the U.S.
- Assess the need for additional staff for contact tracing, case investigation and outbreak management. Modify plan accordingly.
- Expand the use of syndromic surveillance for influenza-like illness (ILI) to monitor increased influenza activity in the County to improve geographic distribution.
- Recruit pediatric sentinel influenza surveillance providers to monitor ILI among pediatric patients in the County.
- Expand the use of surveillance activities for increased ILI activity and for ILI outbreaks in Schools.
- Share all influenza surveillance data and reports with healthcare providers, schools, laboratory and the public.
- Continue to monitor influenza activity via CDC Epi-X for national communication and CAHAN for Statewide and regional communication.

Pandemic Imminent Stage:
Novel virus causing unusually high rates of morbidity and mortality in widespread geographic areas.

Surveillance:
- Continue activities in the alert stage.
- Ensure data is reliable and feedback mechanisms are functional.
- Request patient medical records and analyze inpatient, emergency department, case investigation and outbreak management data. Identify groups that are at greatest risk to assist the public health laboratory and immunization program with management of testing resources and for vaccine allocation.

- Ensure all data is reported to CDPH.

Pandemic Stage:
Further spread of influenza disease with involvement of multiple continents.

Surveillance:

- Influenza morbidity and mortality surveillance systems will likely become overwhelmed.
- Continue to identify groups that are at greatest risk to further define priority risk groups for vaccine allocation and development of a profile for testing via public health laboratory.
- Continue to monitor reports from CDC and CDPH on national and worldwide morbidity and mortality.
- Continue to monitor influenza activity via CDC Epi-X for National Communication and CAHAN for Statewide and regional communication.

Increased Surveillance and Initial Containment
SCPH will contact all health care providers, either by phone, CAHAN, e-mail, or other means and advise them of the need to increase surveillance for specific ILI. Throughout the initial days or weeks of surveillance, the SCPH will repeatedly contact providers to remind them of the need to maintain increased surveillance.

SCPH will not wait until analytical results are available to direct the initiation of contact investigations, but will initiate contact investigations when alerted by any other LHD of a potential index case in another county that had contacts in Sacramento County. Any initial suspect cases reported to the SCPH will be immediately ordered into isolation by the SCPHO. Contact partners will be ordered into quarantine and monitored for symptoms. The SCPH will request the assistance of the Court System and Sheriff in ensuring isolation and quarantine statuses are maintained. SCPH will advise the County Emergency Operations Coordinator of the need to provide food, medications, and other commodities to quarantined individuals.

The Medical Health Operational Area Coordinator (MHOAC) will contact all health care facilities and advise them of the potential need for more acute care beds, and direct them to begin daily reports of bed availability by bed type. The SCPHO may request the health care facilities to begin increasing bed capacity by reducing elective surgeries, discharging patients and moving less critical patients to other health care facilities if they are available.

Through regular conference calls, the SCPHO will continuously update CDPH of the status of isolated and quarantined individuals, the status of the contact investigations, the status of the assays of biological samples, the status of available beds, and any other information related to the incident and resource issues. Since these calls are expected to include all health departments statewide, the SCPHO will use this venue to update the other health departments in Region IV. These calls serve the purpose of

coordinating local and state public health activities, but do not take the place of formal situation status reports that are forwarded via the MHOAC to the local Emergency Operations Coordinator (or the OAEOC, when activated).

Laboratory Response

SCPHL participates in the California Influenza Rapid Test Surveillance Program and can perform in-house testing using, real time PCR and Direct Fluorescent Antibody (DFA) for viral antigen detection.

Any positive rapid test for any patient(s) with warranted symptoms will then be sent to SCPHL or the State's Viral and Rickettsial Disease Lab (VRDL) for either confirmatory testing of the initial rapid (positive) result or for initial screening and identification. SCPHL currently uses both molecular and DFA for identification of respiratory viruses. Seasonal influenza, Pandemic Influenza as well as Influenza B and Avian Influenza are detected by molecular techniques. Some of the molecular technologies utilized by PHL were originally developed by the Centers for Disease Control and/or the California State Laboratory in Richmond and then deployed to the PHL. Other technologies were obtained from commercial vendors and validated in-house. The testing methods used by PHL will qualitatively detect and identify several of the most common respiratory viruses including Influenza A and Influenza B as well as Adenovirus, Respiratory Syncytial Virus (RSV) and Para influenza viruses 1-3. Any viral isolates or patient samples that cannot be identified through screening and detection method performed at PHL will be sent to the state VRDL for further identification.

All clinical samples and viral isolates will be packaged and shipped following the International Air Transport Association (IATA) Dangerous Goods Regulations for infectious substances. Courier services will be utilized for transport to SCPHLor the State's VRDL.

Any changes in recommendations for novel or pandemic influenza cases identification, reporting, management and laboratory testing will be communicated through the California Health Alert Network (CAHAN).

SCPHL is a BSL-3 (bio-safety level) laboratory and has developed a Safety Manual that specifies the appropriate safety levels for working with infectious agents and the appropriate Personal Protective Equipment (PPE) needed to perform testing. All personnel are trained in the use of PPE and are required to review the manual when first employed, when any new procedure or process are introduced to the laboratory and yearly thereafter during their employment with the laboratory. All records of this training are kept on file.

Laboratory Surge Capacity

If there is a large increase in laboratory test requests caused by a natural or intentional release of a biological, radiological, or chemical agent, SCPHLwill immediately function under its Surge Capacity Plan in order to accommodate the increased workload.

SCPHL has several molecular platforms in place to support surge capacity. These new platforms include an ABI 75 Fast DX; Smart Cyclers; and GeneXpert. Microbiologists are now trained on these instruments and reagent supplies are now in inventory. The primary tools as of this writing for flu testing will be the ABI and Smart Cyclers with the GeneXpert as backup.

Laboratory tasks are assigned by job title and current laboratory assignment. All staff should expect to work additional hours and days as indicated in the plan scenarios. At all times laboratory personnel need to pay particular attention to safety guidelines so that employee safety and laboratory function are never put at risk during the time that there is a stress on laboratory capabilities.

Incident Command
The laboratory response is patterned after the state's Standardized Emergency Management System (SEMS). Under the elements of the SEMS plan, tasks are divided into categories:

Management: Laboratory Director (or designee)-
Responsible for security and the overall emergency policy
Responsible for inter-agency coordination

Operations: Bioterrorism Coordinator-
Responsible for coordinating the laboratory emergency response

Logistics: Senior Public Health Microbiologists-
Responsible for providing, obtaining resources
Responsible for controlling non-requested vender offers
Responsible for collecting information, maintaining documentation
Responsible for specimen reporting

Finance: Administrative Services Officer-
Responsible for tracking costs related to the response operation

Work Schedule
In order to work most efficiently, the laboratory should attempt to limit the number of hours open to receive specimens during the emergency. Specimens will be accepted on weekdays between 8:00 AM and 5:00 PM, but staff may be required to work evening or weekend shifts for processing.

Security
Depending on the agent involved, there may be a significant risk to people visiting the laboratory. Previous incidents have demonstrated that there can be a heightened interest in visiting the public health laboratory during an event. For the personal safety

of visitors and laboratory personnel, no one other than laboratory personnel should be allowed beyond the office or specimen receiving areas.

Communications

Pandemic Influenza Crisis Communications

The Sacramento County Public Health Divisions' Communications and Emergency Risk Communication (CERC) Plan has been developed and includes pandemic influenza crisis communications and key messages for the public and community partners during all phases of a pandemic.

The goal of communications during a pandemic is to help the public and partners know how to prepare for, cope with, and respond to an influenza pandemic. Instructing the public on actions they can take to minimize their risk of exposure and actions they can take if they have been exposed can help reduce the spread of the pandemic, and may also reduce unnecessary demands on vital services.

When internal communication protocols are activated, the DHS Communications and Media Officer (CMO)/ Response Public Information Officer (PIO) will contact the Countywide Services Agency Media Director. These individuals will serve as the core communications team in coordination with the DHS Director and County Health Officer.

The DHS CMO/Response PIO, or County Media Director, will then contact other key leadership individuals including the Countywide Services Agency administrator, the County Executive, the Board of Supervisors and their chiefs of staff.
The SCPH Emergency Preparedness Coordinator maintains a list of key personnel involved in disaster response. The list is updated and distributed periodically. The most recent list can be found in the Public Health Preparedness and Response Plan. Key personnel who must be able to be reached on a 24-hour basis are issued cellular telephones, pagers, and radios. SCPH maintains a secure e-mail system, including secure web-based access to e-mail for all key response personnel.

Communications between DHS and Other Agencies

Whenever an incident in Sacramento County involves more than one agency, the principles of a Joint Information Center (JIC) apply. The JIC will be at the County Office of Emergency Services Operations Center. Since it may be impractical to continuously staff a physical JIC with representatives of all participating agencies, the function of the JIC may be accomplished via electronic communications. Using email, fax, and telephone communications, public information officers from all participating agencies can coordinate information, formulate public messages, and obtain approval from the Unified Command through a "virtual JIC."

At the direction of the County Health Officer, the DHS CMO/PIO will coordinate with the California Department of Public Health Public Information Officer and the County Office of Emergency Services to obtain and coordinate pre-, intra- and post-communication messages.

A list of Communication Officers/Managers/Directors and Public Information Officers throughout the region from the hospitals, nonprofit organizations, fire departments, schools, police departments, and other organizations is maintained by the DHS CMO/PIO on a continual basis.

The California Health Alert System (CAHAN) is capable of reaching designated enrolled persons and representatives of agencies with alerts and notifications through multiple methods including e-mail, phone, fax and pager. CAHAN alerts that are prepared by Sacramento County are sent out under the direction of SCPHO and IC.

A bioterrorism notification algorithm that is in effect for notification and response to a bioterrorism event or naturally occurring outbreak/pandemic is included in the Public Health Preparedness and Response Plan.

External Communication Protocols

During the pre-pandemic phases, the SCPH will have pre-approved information to release to the public on actions residents can take for personal protection. These materials may include methods to control the spread of disease, including hand hygiene, respiratory care etiquette, and avoiding public places.

Risk Communications Strategies

Once the CERC Plan has been activated, the communications team will perform the following tasks:

- Assess public information needs and develop communication objectives for clearance by the SCPHO and IC.
- Develop key messages and gain clearance for distribution of this material to the public and the media from the SCPHO and topic experts.
- Develop fact sheets, Q & A sheets, and other information for public distribution.
- Issue press releases through newspapers, radio, and television announcements.
- Liaise with 2-1-1 Sacramento (countywide social services) and Sacramento City services (3-1-1) and the County Communications and the Countywide Utility Billing System (CUBS) to give information that the public can receive. Ensure the information is regularly updated.
- Prepare posts for the Public Health social media pages/accounts.
- Arrange for the information to be published on the Public Health Division website, county Office of Emergency Services website, (www.sacramentoready.org), and other county sites as appropriate.
- Develop talking points. Identify and brief the spokesperson(s). In most instances, the County Health Officer or his/her designee will be the spokesperson. If the County Health Officer and designee is not available, the DHHS CMO will serve as spokesperson.
- Liaise with the County Emergency Operations Center and other public information officers at the state and regional level.

- Coordinate news conferences and public information meetings, if needed.
- Consider language and cultural barriers in communication response. Arrange for translation/interpretation of public information into other languages as needed.
- Consider the needs of vulnerable populations (such as the homeless and those with disabilities, especially mobility, visual and/or hearing impaired).
- Consult the Mental Health Disaster Area Response Team (MH-DART) about the potential mental health needs of the "worried well" and general public.

The SCPHO will specifically advise other Local Health Departments (LHD's) in Region IV, and CDPH, before the release of these materials to the public and media. SCPHO will regularly issue statements to the public advising them of the nature of the event and the actions being taken by Sacramento County in response to the event.

Interacting with the News Media

The core communication team will work with the SCPHO to create messages to release on a regular basis to the news media. Content must be approved in advance for release by the SCPHO and IC, who may also contact CDPH and LHD's for input and coordination.

News conferences

Joint news conferences will be held regularly as needed, sharing information as it is confirmed, written, and approved for release by the SCPHO. Media will be told how often they can expect to receive updates and in what format they will receive updates.

The Public Health communication team will determine who will speak during the news conference, depending on the nature of the event and the location of the news conference.

Generally, one selected representative will communicate the confirmed facts of the event, expectations, and the time of the next update. A question and answer session may follow.

Relevant subject experts will accompany the speaker and will answer questions that are specific to their subject. For example, the Health Officer may or may not lead the news conference, but will typically answer any questions regarding public health.

Samples of public education materials, such as how to protect ones' self from the flu, may be included in media informational packets.

Media Interviews and Media Messages

All media requests for information are to be forwarded to the DHS CMO/PIO.

2-1-1 Sacramento

2-1-1 Sacramento is an information and referral service for social services available 24 hours a day, seven days a week, in multiple languages.
To ensure consistency, public health messages will be shared with 2-1-1 operators as quickly as possible. The DHS CMO/PIO will make contact with 2-1-1 as soon as the SCPHO and IC determines that messages need to be disseminated to the public.
Contact info:
Director of 2-1-1 Sacramento

Sacramento County - Consolidated Utilities Billing Service (CUBS)

Sacramento CUBS can be used as a back-up phone center in case public response exceeds the capacity of 2-1-1 Sacramento. CUBS personnel will also receive any scripted messages disseminated by SCPHO.

- CUBS have the capacity to staff 59 lines with trained personnel, and to receive 215 phone calls concurrently before a caller would receive a busy signal. It could take up to 48 hours to train the staff on the emergency script. Because of this, contact must be made with CUBS as soon as the Health Officer determines that CUBS' support will be needed.
- CUBS "wait" lines can be used to pre-record critical messages or answers to commonly asked questions and played to callers as they wait for a live person. This could be useful in a pandemic to answer common questions of callers to free up those lines.

Communication with Hospitals and Healthcare Providers

Hospitals will play an important role in providing vital information to the public, health care providers and hospital staff before, during, and after a pandemic. The DHHS CMO will take the lead in maintaining regular communication among local hospital Public Information Officers.
Communication channels may include but are not limited to:

- Regular conference calls between local health officers, hospital public information officers, and other healthcare partners
- Blast fax and email alerts
- CAHAN alerts
- Phone alerts

A list of hospital PIOs is maintained in the CERC Plan.

Community At Large

The DHS CMO/PIO will prepare on an ongoing basis the following:

- Contact key community partners and implement frequent briefings
- Implement and maintain community resources such as 2-1-1 scripts, Facebook and Twitter, and websites to respond to questions from the public and professional groups

- As resources permit, work with schools, child care providers, law enforcement and volunteer organizations (such as the American Red Cross) to conduct community education campaigns on how members of the public can protect themselves and their family members during a pandemic.

Considerations for Vulnerable Populations

Preparing for pandemic influenza requires specific attention to vulnerable populations to ensure an effective response. SCPH is committed to providing health care services to those in need and most vulnerable, and actively seeks to do so as part of its commitment to reducing health disparities. Including vulnerable populations and the organizations that serve them in pandemic flu planning is consistent with Sacramento County Public Health's mission to reduce health and health care disparities and serve those most in need and vulnerable in Sacramento County.

The definition of vulnerable populations extends beyond the notion of preparing to meet the needs of culturally and linguistically diverse populations in the County. SCPH and partner agencies provide multilingual and culturally competent services that will be integrated into the pandemic preparedness and response efforts.

Vulnerable populations may also include individuals in the community with access and functional needs that may require assistance before, during and/or after a disaster or health emergency after exhausting their usual resources and support network. In the context of pandemic influenza planning, vulnerable populations can also refer to:

1. Members of the community with little or no ability to successfully prepare for, implement, or be fully responsible for their own emergency preparedness, response and recovery needs.
2. People whose life circumstances leave them unable or unwilling to follow emergency instructions, as well as anyone unable or unwilling to fully access or use traditional disaster preparedness and response services.

SCPH actively participates in emergency preparedness planning for vulnerable populations with several local advocacy groups. Together, these groups form the 'Emergency Preparedness for People with Access and Functional Needs Committee' that originated from an ad hoc committee of the Human Services Coordinating Council.

Several categories of vulnerable populations have been proposed and are defined below. Although these categories provide a basis for planning, it should not be assumed that every person within the broad category will require an adapted response.

Categories of Vulnerable Population	
Physically Disabled Ranges from minor disabilities causing restriction of some motions of activities, to	**Mentally / Developmentally Disabled** Ranges from minor disabilities where independence and ability to function in most

totally disabled requiring full-time attendant care for feeding, toileting, and personal care.	circumstances is retained, to no ability to safely survive independently, attend to personal care, etc. This also includes people whose mental illness makes them a danger to themselves or others.
Blind Includes the range of visual challenges and impairments-low vision, night, blindness, color blindness, depth perception challenges, situational loss of sight, etc.	**Culturally isolated** Includes people with little or no interaction or involvement outside their immediate community. This is the broad meaning of the words “culture” and “community”.
Deaf, Deaf-Blind, Hard of Hearing Includes late-deafened, hearing impaired, hard of hearing, and the range of hearing challenges and impairments, such as situational hearing loss, limited-range hearing, etc.	**Medically Dependent / Fragile** Includes people dependent on life sustaining medications, such as with HIV/AIDS and diabetes, or people who are dependent on medications to control conditions and maintain quality of life such as pain or seizure control medications or receiving treatment such as hemodialysis.
Seniors Includes frail elderly, aged, elder citizens, older persons and the range of people whose needs are often determined by their age and age-related conditions.	**Chemically Dependent** Includes substance abusers and others who would experience withdrawal, sickness or other symptoms due to lack of access such as methadone users.
Limited English or Non-English Proficient Includes monolingual individuals as well as those with limited ability to speak, read, write or fully understand English.	**Teens** Includes all middle and high school students, foster care youth, emancipated minors, and juvenile justice dependents under the age of 18 years.
Immigrant Communities Includes persons who may have difficulty accessing information or services because of cultural differences.	**Clients of Criminal Justice System** Includes inmates, parolees, people under house arrest, registered sex offenders, etc.
Children Includes infants, pre-school aged, elementary school age, latchkey kids under the age of 12 years.	**Transient special needs** Includes people temporarily classified as special needs due to a temporary condition or status such as tourists who will need care until they can leave, those who can’t see without their glasses, etc.
Homeless and Shelter Dependent Includes those marginally or temporarily housed or in shelters for abused women and children.	**Emergent special needs** Includes those developing special needs because of the situation, such as spontaneous anxiety/stress disorders, or recurrence of a dormant health condition, etc.

Impoverished Includes extremely low-income, without resources, without political voice, limited access to service and limited ability to address their own needs.	**Medically Compromised** Includes people with multiple chemical sensitivities or weakened immune systems and those who cannot be in (or use) public accommodations for a variety of reasons.
Geographically isolated Includes those with no access to services or information, limited access to escape routes or geography overwhelmingly determines lifestyle, habits, behaviors, or options.	**Persons distrusting of authority** Includes people without documentation, political dissidents, and others who will not avail themselves of government, Red Cross or other traditional service providers due to a variety of reasons.
Single parents Includes lone guardians, others with formal or informal child care responsibilities, especially those with no other support system.	**Animal owners** Includes owners of pets, companion animals or livestock, especially those who will make life and death decisions based on animals, such as refusing to evacuate or refusing to go to a shelter if it means separation from an animal.

SCPH will work closely with community based organizations, agencies and advocacy groups for vulnerable populations listed in Appendix J of the CERC Plan to ensure sharing information as it relates to pandemic influenza prevention and community mitigation measures. Vaccine information sheets are provided in the nine major languages spoken in Sacramento. An additional 31 languages can be found at www.immunize.org that can be used as needed.

Use of multiple communication modes will offer the best chance of reaching all audiences, including vulnerable populations.

The following approaches will be taken into consideration as preparedness and response actions are implemented:

- Hearing-impaired individuals may access information via closed captioning services on television news casts, including local cable and Spanish television
- Hearing-impaired individuals can access emergency information posted on the county Public Health website and on Facebook and Twitter pages
- Vision-impaired individuals would be served by messages from KFBK 1530 AM, the local Emergency Broadcast System radio station
- Resources for translating materials into other languages and into other formats, such as Braille, are contained in the CERC Plan
- Key messages shall be delivered in multiple communication modes utilizing a broad spectrum of communication tools (web, TV, radio, print media, social networking sites, Twitter, Facebook, and Sacramento 2-1-1)

Reference Appendices

Appendix A: Legal References

HEALTH OFFICER AUTHORITY

The SCPHO has statutory authority to act in certain emergencies and to take any measures necessary to prevent the spread of any contagious, infectious or communicable disease that exist in the jurisdiction, with or without a declaration of emergency.[1] In addition, the Health Officer can act under certain laws relevant to isolation and quarantine.
See authorities contained in the **Communicable Disease Outbreak Response Plan**

Limiting the Movement of Individuals and Groups (Social Distancing Measures)
Both the Health Officer and local law enforcement agencies have specific legal authority for controlling the movement of individuals to protect the health and safety of the public. This authority includes the power to order and subsequently implement isolation, quarantine and other social distancing measures.

1. The following measures are permitted to control the spread of disease and/or address a public health disaster:
   a. Isolation and Quarantine
      i. Isolation is defined as separation of infected persons from other persons for the period of communicability in such places and under such conditions as will prevent the transmission of the infectious agent.[2]
      ii. Quarantine is defined as the limitation of freedom of movement of persons or animals that have been exposed to a communicable disease for a period of time equal to the longest usual incubation period of the disease, in such a manner as to prevent effective contact with those not so exposed.[3]
      iii. The SCPHO may order both isolation and quarantine during the pandemic.
   b. Area Closures and/or Evacuations
      i. The SCPHO has the authority to “close the area where the menace exists” if the calamity, caused by “flood, storm, fire, earthquake, explosion, accident or other disaster” has created “an immediate menace to the public health.”[4] If the closure involves multiple venues and it appears likely to exceed several days, the SCPHO will likely consult with local

[1] CA HSC § 120175
[2] 17 CCR § 2515
[3] 17 CCR § 2520
[4] CA Penal Code § 409.5

officials as to whether a local emergency should be declared.

ii. The Sheriff and Chief of Police have the responsibility for closing areas to the public and consequently to order an evacuation whenever a menace to the public health or safety is created by a calamity.[5]

iii. Law enforcement officers have the authority to close or restrict access to an area whenever a menace to the public health or safety is created by a calamity.[6]

c. Public Assembly and Venues Closures

i. The SCPHO has the authority to "forbid the holding of any meeting or gathering, either public or private, and to close any place where meetings are held to prevent the spread of disease" whenever an epidemic or any contagious or infectious disease is prevalent in the County. This includes the authority to close schools, day care centers and other public gatherings. Curfews

i. During a local emergency the local government may impose a curfew to preserve the public order and safety. Curfews can be proclaimed by Board of Supervisors (BOS), an official designated by the BOS (through a county ordinance), or the Governor.[7] The SCPHO may recommend imposing curfews.

d. Highway Closures

i. The California Department of Transportation has the authority to restrict traffic or close state highways for the protection of the public. [8]

ii. The California Highway Patrol, police departments and the Office of the Sheriff may close highways if there is a threat to public health or safety caused by dangerous substances.[9]

2. Actions ordered by the SCPHO to limit the movement of individuals and groups will be coordinated within the Operational Area EOC and the PHOC. This will include:

a. Managing proclamations and declarations required for limiting the movement of individuals and groups.

b. Coordinating law enforcement support for the implementation of limiting the movement of individuals and groups.

c. Issuing Emergency Alert System broadcasts regarding the status of limiting the movement of individuals and groups.

[5] CA Penal Code § 409.5
[6] CA Penal Code § 409.5
[7] CA Government Code § 8634
[8] CA Street and Highways Code §124
[9] CA Vehicle Code § 2812

Appendix B: Glossary

Word	Definition

Appendix C: Acronyms

ACIP	Advisory Committee on Immunization Practices
ACS	Alternate Care site
CAHAN	California Health Alert Network
CDC	Centers for Disease Control and Prevention
CDPH	California Department of Public Health
CERT	Community Emergency Response Teams
CMO	Communications and Media Officer
DHS	Department of Health Services, Sacramento County
DEOC	Department Emergency Operations Center
IATA	International Air Transport Association
IC	Incident Commander
ICS	Incident Command System
ILI	Influenza Like Illness
JEOC	Joint Emergency Operations Center (State Level)
JIC	Joint Information Center
LHD	Local Health Department
MACC	Multi-Agency Coordinating Committee
MHOAC	Medical/Health Operational Area Coordinator
MRC	Medical Reserve Corps
OA	Operational Area
OAEOC	Operational Area Emergency Operations Center
OES	Office of Emergency Services (Governor's office)
PHO	Public Health Officer
PHCC	Public Health Coordination Center (DHHS Division of Public Health)
PIO	Public Information Officer
PPE	Personal Protective Equipment
RSV	Respiratory Syncytial Virus
SCHEPP	Sacramento County Hospitals Emergency Preparedness Plan
SCPH	Sacramento County Division of Public Health
SCPHL	Sacramento County Public Health Laboratory
SCPHO	Sacramento County Public Health Officer
SOC	State Operations Center
SRCC	Sacramento Region Citizens Corps Council
VIPS	Volunteers in Police Service
VRDL	Viral and Ricketsial Disease Laboratory
WHO	World Health Organization

Appendix D: Authorities and References

Liability and Immunity for County Employees and Volunteers

Civil liability refers to the potential legal responsibility of a person or entity for actions that result in injuries or losses to others. State law protects County employees from personal civil liability for negligent acts they commit, provided that they were acting within the course and scope of their employment.[10] In lawsuits alleging negligence on the part of a County employee, the employee would be represented by the Office of the County Counsel because the County has the responsibility to defend and indemnify the County employee so long as the employee reasonably and in good faith cooperates with the County staff and appointed counsel.[11]

County emergency preparedness and response volunteers may benefit from liability protection under three different sets of laws: the California Emergency Services Act, [12]California Good Samaritan laws and the Federal Volunteer Protection Act of 1997.[13] While the degree of protection afforded varies from statute to statute, it can generally be said that more protections apply once a state of local emergency is officially declared.[14]

The California Emergency Services Act provides statutory protection to certain medical volunteers who render services during a state of local emergency. Specifically, the Emergency Services Act mandates that physicians, nurses and other specified healthcare professionals who render services during a time of war, state or local emergency, shall not be liable for any injury sustained as a result of that service except where the injury is caused by a willful act or omission.[15]

The Emergency Services Act also affords immunity to non-licensed medical volunteers in emergency situations. It provides that Disaster Service Workers Volunteers and unregistered, convergent volunteers that are “duly impressed into service during a state of war emergency, a state of emergency or a local emergency” have the same degree of responsibility for their actions and enjoy the same immunities as officers and employees of the state and counties performing similar work for their respective entities.[16]

California provides additional statutory protections to specified volunteers under its Good Samaritan laws. For example, the Business and Professions Code has two provisions that specifically protect doctors who render emergency aid from liability for

[10] California Government Code § 825
[11] California Government Code § 995
[12] California Government Code § 8550 et seq.
[13] 42 U.S.C. § 14501-14505
[14] Either the County Board of Supervisors or its designees may declare a state of local emergency if there exists “conditions of disaster or of extreme peril to safety of persons or property…” Government Code §§ 8558(c), 8630.
[15] California Government Code § 8659
[16] California Government Code § 8657

civil damages under specified circumstances.[17] Good Samaritan immunity also extends to licensed registered nurses and vocational nurses who render emergency care "outside both the place and the course of that person's employment."[18] Immunity is lost if the nurse is grossly negligent.

In addition, the California Health and Safety Code provides protection against liability for individuals who render emergency care at the "scene of an emergency." The code reads as follows:

> No person who in good faith and, not for compensation, renders emergency care at the scene of an emergency shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered.[19]

The federal Volunteer Protection Act of 1997 limits the personal tort liability of volunteers at nonprofit organizations and government entities.[20] In order for immunity to apply, volunteers much act within the scope of their responsibilities at the time of the act or omission and must be properly licensed or certified.[21]

The Volunteer Protection Act excludes tort protection to volunteers in the following instances:

- Willful or criminal misconduct,
- Gross negligence,
- Harm due to the use of a motor vehicle, vessel, aircraft or any vehicle for which a license or insurance is required,
- Flagrant indifference to the rights or safety of the individual harmed,
- Sexual misconduct, hate crimes, crimes of violence,
- Conduct while under the use of alcohol or drugs.[22]

[17] California Business and Professions Code §§ 2395-2396
[18] California Business and Professions Code § 2727.5, 2861.5
[19] California Health and Safety Code § 1799.102
[20] 42 U.S.C. § 14501-14505
[21] 42 U.S.C. § 14503
[22] 42 U.S.C. §14503(a)

Appendix E: Hazard, Threat or Incident Specific Annexes

Modes of Influenza Transmission

The mode of transmission defines how an infectious viral particle is transmitted from an infected person ("source person") to a well person ("susceptible person") and causes infection. The major mode of transmission for influenza is not entirely clear. However, the pattern of person-to-person spread is generally consistent with spread through close contact (i.e., exposure to large respiratory droplets, direct contact or near-range exposure to aerosols). Some studies support the possibility of airborne transmission of influenza through small particle aerosols. However, there is little evidence of airborne transmission over long distances or prolonged periods of time. Unfortunately, the relative contributions and clinical importance of the different modes of influenza transmission are currently unknown.

- *Droplet transmission* occurs when a person who has symptomatic illness or who is a carrier of the virus ("source person") generates droplets containing virus when they cough, sneeze or talk. These droplets then contact the conjunctivae (covering of the eyeball) or the mucous membranes of the nose or mouth of a susceptible person and cause infection. Transmission via large-particle droplets (> 10m in diameter) requires close contact between source and recipient individuals because droplets do not remain suspended in the air and generally travel only short distances (about three feet) through the air. Because droplets do not remain suspended in the air, special air handling and ventilation are not required to prevent droplet transmission.

- *Direct contact transmission* involves skin-to-skin contact and physical transfer of virus from an infected person to a susceptible person (e.g., by hand contact). Indirect contact transmission involves contact of a susceptible host with a contaminated intermediate object, (such as a door handle or faucet), in the patient's environment.

- Some studies suggest *fomite transmission* via contaminated hands and objects as contributing factors. However, there is insufficient data to determine the proportion of influenza transmission that is attributable to direct or indirect contact. In an experimental study, influenza viruses could be transferred from hard, non-porous surfaces such as stainless steel and plastic to hands for 24 hours, and from tissues to hands for up to 15 minutes. Viruses can survive on hands for up to five minutes after transfer from an environmental surface. Higher humidity shortens virus survival.

- *Airborne transmission* occurs by dissemination of either airborne droplet nuclei (< 5m in diameter) or small particles in the respirable size range containing the infectious agent into the air. Microorganisms carried in this

> manner may be dispersed over long distances by air currents and may be inhaled by susceptible individuals who have not had face-to-face contact with (or been in the same room with) the infectious individual. Organisms transmitted in this manner must be capable of sustaining infectivity, despite desiccation (dryness), and environmental variations that limit survival while airborne. Preventing the spread of agents that are transmitted in the air requires the use of special air handling and ventilation systems (e.g., negative pressure rooms). The contribution of airborne transmission to influenza outbreaks is uncertain. Evidence is limited and primarily comes from laboratory studies in animals, along with some observational studies of influenza outbreaks in humans; particularly on cruise ships and airplanes, where other mechanisms of transmission were also present. Additional information suggesting airborne transmission was reported in a Veterans Administration Hospitals study that found lower rates of influenza in wards exposed to ultraviolet radiation (which inactivates influenza viruses) than in wards without ultraviolet radiation. Another study indicated that humidity could play a role in the infectivity of aerosolized influenza, although the influence of humidity on the formation of droplet nuclei was not evaluated.

There is no evidence that influenza transmission can occur across long distances (e.g., through ventilation systems) or through prolonged residence in air, as seen with airborne diseases such as tuberculosis. However, transmission may occur at shorter distances through inhalation of small particle aerosols (droplet nuclei), particularly where people share spaces with poor air circulation. An experimental study involving human volunteers found that illness could be induced with substantially lower virus concentration when influenza virus was administered as a small droplet aerosol rather than as nasal droplets, suggesting that infection is most efficiently induced when virus is deposited in the lower rather than the upper respiratory tract. While this study supports the possibility of droplet nuclei transmission of influenza, the proportion of infections acquired through droplet nuclei – as compared with large droplet or contact spread – is unknown. *In summary, the precise mode of transmission and the relative contribution of droplet transmission versus airborne transmission versus contact transmission are not known.* However, several observations suggest that the influenza is spread primarily through close contact (i.e., exposure to large respiratory droplets, direct contact or near-range exposure to aerosols) and it does not travel long distances (i.e., through ventilation systems). The County Public Health Division's recommendations for infection control practices to prevent the spread of disease are based on close-contact spread of influenza.

Infection Control Measures for Specific Settings

The SCPHO/designee will use the venue of the CDPH statewide conference calls to obtain updated information on recommended clinical treatment protocols. The SCPHO/designee will forward clinical treatment protocol recommendations to local

health care providers via CAHAN, FAX blast, and e-mail. The SCPHO will request information on the effectiveness of the treatment protocols from clinicians and communicate that information back to CDPH.

Infection Control Guidelines For Places Outside Of The Healthcare Setting

Strictly following infection control practices will be critical to limiting the spread of disease. To the extent possible, every individual needs to learn the basic concepts of infection control and be equipped to practice them in whatever setting they may find themselves: home, school, the workplace, or other non-healthcare settings. These infection control practices should be applied in both the Alert Period and the Pandemic Period.

For each of the settings described below, the infection control guidance described under *Infection Control Practices to Prevent the Spread of Disease* applies as well as the following setting-specific guidance

Pre-hospital care (emergency medical services/first responder):

- Screen patients requiring emergency transport for symptoms of influenza.
- Follow standard and droplet precautions when transporting symptomatic patients.
- Once pandemic influenza has been identified in the community, use surgical or procedure masks for all patients in transport.
- If possible, place a surgical or procedure mask on the patient to contain droplets expelled during coughing. If this is not possible, (i.e., would further compromise respiratory status or it is difficult for the patient to wear), have the patient cover the mouth and nose with tissue when coughing or use the most practical alternative to contain respiratory secretions.
- Unless medically necessary to support life, aerosol-generating procedures (e.g., mechanical ventilation) should be avoided during pre-hospital care.
- Optimize the vehicle's ventilation to increase the volume of air exchange during transport. When possible, use vehicles that have separate driver and patient compartments that provide separate ventilation systems to each area.
- Notify the receiving care facility that a patient with a possible pandemic strain of influenza is being transported.
- Follow standard operating procedures for routine cleaning of emergency vehicles and reusable patient care equipment.

At home:

- Physically separate the patient with influenza from non-infected people living in the home as much as possible. If more than one person in the home has influenza, all infected people can share the same room. Ideally the patient(s) with influenza should have their own room with windows that open to increase air circulation. The door to the room with influenza patient(s) in it should be kept closed.

- Patients should not leave the home during the period when they are most likely to be infectious, up to 14 days from the onset of illness for a novel influenza virus. The duration of isolation may be shortened to as few as five days after onset of symptoms after more is known about the virus. When travel outside the home is necessary (e.g., for medical care), the patient should cover his/her mouth and nose when coughing and sneezing and should wear a mask when in close proximity (e.g. six feet or less) of others.

At day care centers and schools:

- Keep students, teachers and other workers who are infected with influenza away from schools or day care centers while they are ill and potentially infectious, up to 14 days from onset of the illness. This time frame may be revised to a shorter period of time when more is known about the virus.
- If there will be a lag time between when a potentially infectious person is identified and when they can leave school, move them to a separate and well ventilated room. Keep the door closed.
- Promote respiratory hygiene, cough etiquette and hand hygiene as for any respiratory infection.
- Routine environmental cleaning is adequate.

At the workplace:

- Keep workers away from the workplace while they are ill and potentially infectious, up to 14 days from onset of the illness. This time frame may be revised to a shorter time period when more is known about the virus.
- If there will be a lag time between when a potentially infectious person is identified and when they can leave the workplace, move them to a separate and well-ventilated room. Keep the door closed.
- Promote respiratory hygiene, cough etiquette and hand hygiene as for any respiratory infection.
- Routine environmental cleaning is adequate. (Environmental cleaning in a school or day care may be more rigorous than that needed for a worksite.)

At correctional facilities:
In this setting where crowding and barracks-style living may increase transmission of the influenza virus, special care should be taken to identify and isolate infectious inmates as early as possible.

- To the extent possible, place inmates into three groups: infected, exposed and non-infected and not exposed.
- Infected inmates should be kept in a well-ventilated room or rooms physically separate from the remainder of the population. Doors to those rooms should be kept closed.
- Jail staff assigned to the infected inmates should not float or have any contact with the second or third groups described above.

- Inmates who show signs of influenza at booking should be immediately placed into the infected group.
- Promote respiratory hygiene, cough etiquette and hand hygiene as for any respiratory infection. Once a pandemic is established, masks for all inmates and staff are recommended.
- Routine environmental cleaning is adequate.

Infection Control Practices to Prevent the Spread of Disease

The following recommendations are based on what is known about the modes of influenza transmission. The most important concept in preventing the spread of influenza is to prevent the direct and indirect inoculation of the respiratory tract. There are four major ways to accomplish this:

1. Limit contact between infected and non-infected people.
   a. Whenever possible, isolate infected people. In the workplace or school, people with symptoms of influenza (fever, headache, muscle pain, prostration, cough, runny nose, or sore throat) should be sent home. If they cannot be sent home immediately, confine them to a separate room with the door closed. If contact between infected and non-infected people cannot be avoided (e.g., during transport in a car), place a surgical or procedure mask over the nose and mouth of the infected person and open the windows to increase air circulation.
2. Contain infectious respiratory secretions of the infected person.
   a. Anyone with signs and symptoms of a respiratory infection, regardless of presumed cause, should cover their nose and mouth when coughing or sneezing, preferably with a tissue or cloth, and wash hands with soap and water after contact with respiratory secretions and contaminated objects or materials.
   b. Schools, workplaces, businesses and other places where people congregate should ensure availability of tissues, garbage receptacles and a place to wash hands with soap and water or with an alcohol-based hand rub.
3. Protect non-infected people with Personal Protective Equipment (PPE) and hand hygiene.
   a. People who come in contact with individuals suspected of being infected with influenza (during transport of an ill person, in the home, in the jails, or in a daycare, school or work setting) can protect themselves by doing the following:
      - Wear a surgical or procedure mask when in close proximity (within three feet) of an infectious person. Masks should be changed and discarded when they become moist. Wash hands or use alcohol-based hand rub after touching or discarding a mask.

- Wear gloves if there is likely to be contact with respiratory secretions. Discard gloves immediately after use.
- To avoid inadvertent contamination, generally avoid touching one's own face, eyes, nose, or mouth.

b. Hand hygiene techniques include the following:
   - If hands are visibly soiled, wash them with warm water and soap.
   - If hands are not visibly soiled, use an alcohol-based hand rub (these products are preferred over soap and water in this situation because they don't dry the skin).
   - Perform hand hygiene after contact with a person who may be infected, after removing mask or gloves or after touching items or surfaces that may be soiled.

4. Promote air circulation and keep the environment clean.
   a. Good air circulation has been shown to decrease the chance of spreading respiratory viruses.
      - When caring for an infected person in the home or a residential facility, place the patient in a separate room with a window that will open. Keep the doors closed and the windows open as the climate permits and use a fan to circulate fresh air if necessary.
      - Ultraviolet light can kill influenza virus. Open the shades and allow sunlight into the room.
   b. Waste disposal:
      - Tissues used by an infected person and other waste should be placed in a bag and disposed of with other household garbage.
   c. Linen and laundry:
      - Laundry may be washed in a standard washing machine with warm or cold water and detergent.
      - It is not necessary to separate soiled linen and laundry used by a patient with influenza from other household laundry.
      - Care should be used when handling soiled laundry (i.e., avoid "hugging" the laundry) to avoid self-contamination.
      - Wash hands after handling soiled laundry.
   d. Dishes and utensils:
      - Soiled dishes and eating utensils should be washed either in a dishwasher or by hand with warm water and soap.
      - Separation of eating utensils for use by a patient with influenza is not necessary.
   e. Environmental cleaning and disinfection:

- Surfaces in the home, workplace, school, etc., can be cleaned using normal procedures.
- An EPA-registered hospital disinfectant can be used according to manufacturer's instructions.
- There is no evidence to support the widespread disinfection of the environment or air.

Nonmedical Interventions To Limit The Spread Of Disease

Nonmedical interventions to limit the spread of disease refer to measures that attempt to slow introduction of disease and subsequent transmission until more definitive public health measures (antivirals and vaccine) are available. Strategies may include measures that affect individuals (e.g., isolation of patients and monitoring their contacts) as well as measures that affect groups or entire communities, such as quarantine, social distancing measures and/or travel restrictions. Isolation and quarantine may have limited impact in preventing the transmission of pandemic influenza due to the following:

1. Short incubation period of the illness,
2. The early peak infectivity of the illness (peak shedding of the virus occurs in the first 24 – 72 hours of the onset of illness),
3. The ability of people with asymptomatic infection to transmit the virus,
4. The possibility that early symptoms among individuals infected with a novel virus strain may be nonspecific, delaying recognition and implementation of containment. Isolation and quarantine as a disease control strategy is therefore anticipated to have limited effectiveness once a pandemic is underway.

Isolation and Quarantine and Travel Restrictions

Isolation and Quarantine

During pandemic influenza, isolation and quarantine measures may be implemented to decrease the spread of disease. These measures are expected to be most effective during the later phases of a Pandemic Alert Period and very early in a Pandemic Period. Isolation is defined as separation of infected individuals from other people for the period of communicability in such places and under such conditions that will prevent the transmission of the infectious agent. Isolation will slow, but not stop the spread of influenza, as transmission can occur prior to the onset of symptoms, as well as in people who have mild or asymptomatic infection. Quarantine is defined as the limitation of freedom of movement of individuals or animals that have been exposed to a communicable disease for a period of time equal to the longest usual incubation period of the disease, in such a manner that will prevent effective contact with those not exposed to the disease. Quarantine measures will be limited in use and may only be used early or very late in the Pandemic Period when cases are limited or in unique situations such as potential exposure during air travel.

Isolation and Quarantine during the Alert Period (Phases 3-5)

1. SCPH assigns and trains the Isolation/Quarantine Group within the PHOC Operations Section of the Medical Health Branch.
2. SCPH trains the Crisis Disease Control Team to give orders of home isolation, monitor home isolation orders and check for signs and symptoms of influenza in household contacts.
3. SCPH identifies alternative care sites for isolation of individuals who have no substantial healthcare requirements and/or people for whom home isolation is needed, but who do not have access to a home setting. These groups of people would include travelers and homeless populations.
4. SCPH promotes the use of Community Emergency Response Teams and/or other neighborhood-based methods for providing support to individuals who are in home isolation. Consider the use of neighborhood distribution sites for the distribution of support supplies to people in home isolation.
5. SCPH develops a database structure to be used for collecting and monitoring individuals in isolation for pandemic influenza.
6. SCPH implements procedures for identification and quarantine of close contacts. In most situations it will not be possible to trace and quarantine close contacts of suspected or confirmed cases within 48 hours (the average incubation period for human influenza). However, during certain situations such as later phases of the Pandemic Alert Period and the earliest phase of the Pandemic Period (particularly before sustained transmission to the local area), it may be possible. The following procedural checklist will be used in such cases:
    a. Determine the likelihood that the suspected case is due to a novel influenza strain (based on symptoms, travel history and/or laboratory results).
    b. Determine the likelihood that the causative virus is transmitted from person-to person with a moderate or high efficiency.
    c. Determine if it is possible to conduct contact tracing given the short incubation period for influenza.
    d. Conduct contact tracing and identification as appropriate.
    e. Issue quarantine orders to identify contacts for home or community-based quarantine.
    f. Collect information about each contact that includes the following information:
        i. Relationship to the patient,
        ii. Nature and time of exposure,
        iii. Whether the contact was vaccinated or on antiviral prophylaxis,
        iv. Underlying medical conditions,
        v. Number of contacts who become infected,
        vi. Number of days between onset of symptoms,
        vii. Reporting to health officials.

7. A Health Department Official monitors contacts in quarantine at least once a day, by phone or in person, to assess their symptoms and address their needs.
8. Quarantine is lifted when the exposed contact has remained without signs or symptoms of the disease for a complete incubation period (four or five days—this may be adjusted as more is known about the virus).

Isolation and Quarantine during the Pandemic Period (Phase 6)

During the early Pandemic Period, individuals who are given a physician or Health Officer order for isolation will be identified, monitored and provided support. As the pandemic's spread widens, the resource capacity for identifying and monitoring all cases will be quickly exhausted. Case volume will quickly reach a threshold during which it may no longer be possible to monitor individuals who are isolated or quarantined in their homes, requiring a greater reliance on individual responsibility and neighborhood-based support systems. As case volume declines, SCPH may resume monitoring individuals who are isolated or quarantined. This approach is reflected in the following action steps:

1. Health Officer orders isolation and/or quarantine for individuals or for the community, as necessary and feasible.
2. Physician instructs patient (per Health Officer Order) to isolation (hospital, Influenza Care Center, or home).
3. SCPH activates staff to perform the following:
   a. Assist the Health Officer to prepare alerts and health orders for isolation/quarantine and social distancing measures.
   b. Activate staff to build a database of patients placed on isolation in hospitals, at home, or at alternate care sites. Electronic (e-mail) and written fax reporting is established to identify patients. This will likely be possible only during the initial stages of the Pandemic Alert Period and final phases when cases are limited.
   c. Physicians may be instructed to submit case reports by fax to the County Public Health Division on each patient ordered to home isolation.
   d. Hospitals may be instructed to submit case reports by fax to the County Public Health Division on each patient ordered to home isolation. As the pandemic becomes more widespread, submission of case reports may transition to aggregate reporting versus individual patient reporting.
   e. Alternate care sites may be instructed to submit case reports by fax or via CalREDIE to the Public Health Division on each patient isolated within the site. As the pandemic becomes more widespread, submission of case reports may transition to aggregate reporting versus individual case reporting.
   f. Instructions will be communicated via the media, Fax blast, CAHAN or other method to encourage reporting by the healthcare community.

4. When the number of cases in the county exceeds the capacity of the SCPH staff and volunteer resources to identify and monitor all individuals who are home-isolated, case-tracking will be limited to counting cases only and may be scaled back further to receiving batch reports and monitoring persons at high risk for exposing others only.
5. Individuals who meet the criteria for a case of pandemic influenza and who do not require hospitalization for medical reasons should be isolated in their homes. Minimum standards for home isolation include adequate infrastructure, accommodations and resources for patient care and support.
6. A patient's physician or County Public Health Division official determines if the patient's medical condition meets the criteria for home isolation.
7. A patient's physician or County Public Health Division official conducts an evaluation for feasibility of home isolation.
8. If the patient meets the criteria for home isolation but does not have an adequate home setting, the patient may be isolated in an alternate care site.
9. The OAEOC structure is responsible for implementing procedures to deliver health care, food, pharmaceuticals, water, PPE, hygiene supplies, and vehicles for patient transport (e.g., ambulances, buses, vans and cars) and other services to individuals in home isolation or quarantine.
10. During the very late phases of a Pandemic Alert period or early phases of a Pandemic period, community-based teams will assist in identifying and responding to the needs of isolated or quarantined individuals in homes.
11. When the number of cases exceeds the capacity of the SCPH community-based teams to provide support (through EOC Logistics) to all individuals who are home-isolated or quarantined, mechanisms to provide neighborhood support and neighborhood supply distribution sites will need to be activated. Instructions about initiating neighborhood support and how people can access supplies through neighborhood distribution sites will be communicated via the media and door-to-door pamphlet distribution.
12. The SCPH will provide direction to health care providers on procedures for triage and transport for individuals in isolation.
13. Once need for patient transport is determined, the OAEOC will be responsible for coordinating transportation. This includes transportation for:
    a. Infected patients from home isolation to a health care facility or alternate care site for treatment,
    b. New cases to a health care facility or alternate care sites for treatment.
    c. Ensuring patient transport to other levels of health care facility or home.
    d. Ensuring transport for patients discharged from a health care facility or alternate care site.

Travel Restrictions

If influenza pandemic begins outside the United States, public health authorities might screen inbound travelers from affected areas to decrease disease importation into the United States. If a pandemic begins in or spreads to the United States, health authorities might screen outbound passengers to decrease exportation of disease. Early in a pandemic, state and local health departments might also implement domestic travel-related measures to slow disease spread within the United States. Because some individuals infected with influenza will still be in the incubation period, be shedding virus asymptomatically or have mild symptoms, it will not be possible to identify and isolate all arriving infected or ill passengers and quarantine travelers who were exposed to them. Once a pandemic is underway, exit screening of travelers from affected areas ("source control") is likely to be more efficient than entry screening to identify infected travelers. Early in a pandemic, this intervention may decrease disease introductions into the U.S. Later, however, as pandemic disease spreads in communities, ongoing indigenous transmission will likely exceed new introductions and federal authorities might modify or discontinue this strategy. Voluntary limitations on travel during a Pandemic Alert Period and Pandemic Period will also decrease the spread of disease. Limiting or canceling travel of U.S. residents and others from affected countries will depend on the properties of the pandemic virus that emerges and will be informed by the facts on the ground at the time of the emergence.

Travel Restrictions during the Alert Period (Phases 3-4)

1. SCPH collaborates with federal quarantine officers, first responders, legal community, EMS, hospital personnel, and airport and transportation representatives to develop plans for training, mobilizing and deploying public health staff and other emergency workers to ports of entry.
2. SCPH participates in exercises and drills at ports of entry.
3. SCPH and the response partners train healthcare workers and emergency responders in the use of Personal Protective Equipment.
4. SCPH prepares the following quarantine protocols for use at Sacramento International Airport:
    a. Temporary (a few days): until results of diagnostic tests become available,
    b. Longer term (up to 14 days): if a diagnosis of pandemic influenza is confirmed.

Travel Restrictions during the Alert Period (Phase 5)

1. Management of infected passengers arriving at Sacramento International Airport.
    a. Flight crew makes a report about passenger(s) with a suspected case of novel influenza to Sacramento International Airport officials.
    b. Sacramento International Airport officials notify Quarantine station and SCPH.
    c. The Health Officer requests information about the ill passenger's symptoms, travel and exposure history. Public Health staff will then make an initial assessment to determine if the illness meets the

current clinical and epidemiologic criteria for avian influenza or if it is a suspicious novel influenza strain.

d. The Health Officer determines if an SCPH official and/or quarantine officer should meet the airplane to further evaluate the infected traveler.
e. An SCPH official provides the crew with guidance about infection control procedures, if needed (e.g., separate the ill passenger as much as possible from other passengers; provide the ill passenger with a mask or tissues to cover coughs and sneezes).
f. An SCPH official meets the airplane (if indicated) and performs the initial medical evaluation of the infected traveler; the other passengers and crew should be informed of the situation
g. If the ill passenger meets the clinical and epidemiologic criteria, the patient is triaged and sent by ambulance to an appropriate health care facility, using appropriate infection control procedures for transit and patient isolation.

2. Management of travel contacts.
   a. SCPH consults with CDPH and CDC (domestic flight) or Quarantine Station (international flight) to decide how to manage an infected person's travel contacts on a case-by-case basis. The following factors will be considered:
      - Likelihood that the suspected case is due to a novel influenza strain
      - Likelihood that the causative virus is transmitted from person-to person with a moderate or high efficiency (as in the later phases of the Alert Period)
      - Feasibility of tracing and monitoring travel contacts, as well as the patient's family members, co-workers or schoolmates and healthcare providers.
   b. Management of contacts might include the following:
      - Passive or active monitoring without restrictions,
      - Quarantine at home or in a designated facility,
      - Antiviral prophylaxis or treatment,
      - Vaccination as it becomes available.
   c. Management of retrospectively identified cases (after 72 hours):
      - During the early phases of the Alert Period, SCPH will quarantine travel contacts only when there is a high probability that the ill passenger is infected with a novel influenza strain that is transmitted between people.
      - If home quarantine is not possible, triage and transport persons to an appropriate assigned location until the diagnosis of the ill passenger is confirmed or disproved.

- Each quarantined passenger should receive a preliminary medical assessment and interview to ascertain their travel and exposure histories.
- Medical follow-up and travel assistance should be provided to all quarantined travelers when the quarantine period ends.

3. Develop and/or issue travel health alert notices, travel contact notices and close contact notices.
   a. SCPH will ensure the distribution of CDC "Travel Health Precautions" that describe steps to take in order to reduce the risk of infection (e.g., avoiding travel to high-risk settings and communities where transmission is occurring).
   b. SCPH will ensure the distribution of CDC "Travel Health Warnings" that recommend postponement of nonessential travel.
   c. During the later stages of a pandemic when there is extensive and sustained transmission in other countries, SCPH will ensure distribution of CDC "Travel Health Alert Notices" to passengers arriving from affected countries (i.e., countries for which health warnings have been issued).
   d. SCPH will request that local airports post "Travel Health Alert Notices" in prominent locations to warn travelers about the situation.
4. If the level of influenza transmission in the U.S. presents a high risk for exportation of disease, SCPH will work with CDPH and DHHS to consider the following actions:
   a. Distribute travel health warnings to outbound passengers who live in or have visited affected parts of the U.S.
   b. Recommend the cancellation of nonessential travel to other countries if the Sacramento County region is affected.
   c. Implement pre-departure screening (e.g., temperature screening or visual screening) of outbound travelers.

Enforcement of Isolation, Quarantine, Community Containment Measures and Travel Restrictions

Based on the SARS experience that showed that most people would comply with requirements, it is anticipated that individuals will cooperate with isolation or quarantine orders. In rare instances it may be necessary to enforce isolation or quarantine orders.

Enforcement of Isolation, Quarantine, Social Distancing and Travel Restrictions During the Alert Period (Phases 3-4)

To prepare law enforcement to respond to a pandemic, SCPH will do the following:

1. Inform law enforcement about the Health Officer's authority to order isolation, quarantine and social distancing measures.

2. Establish mechanisms of communication between the Health Officer and law enforcement community.
3. Instruct law enforcement about the use of Personal Protective Equipment should they be called upon to enforce isolation, quarantine or community containment measures.

Enforcement of Isolation, Quarantine, Community Containment and Travel Restrictions During the Late Alert Period (Phase 5) and Pandemic Period (Phase 6)

Law enforcement actions may include any of the following:

1. Enforce isolation and quarantine orders,
2. Assist in providing security at SCPH, mass prophylaxis sites, and locations where pharmaceuticals and medical supplies and equipment are stockpiled.
3. Provide security during transport of pharmaceuticals, and medical supplies and equipment,
4. Assist in providing security at private and public hospitals, community clinics, and other health care facilities,
5. Provide perimeter security at alternate care sites,
6. Detain individuals who are not in compliance with a Health Officer Order (misdemeanor),
7. Provide security (escort) for physicians, EMS personnel, ambulance personnel, other care providers or support personnel, as required,
8. Conduct area evacuations and secure evacuated areas, and
9. Evacuate and secure public assembly venues when social distancing is required by Health Officer Order or other declaration.

Case Management

According to the California Department of Public Health's Pandemic Influenza Preparedness and Response Plan dated September 2006, it is addressed that healthcare providers are essential to detect the initial cases of novel or pandemic influenza in a community. Early identification of cases through heightened clinical awareness of disease and swift action for isolation and treatment can benefit the individual patient and may slow the spread of influenza in the community. At any phase of a pandemic, rapid diagnosis and clinical care can avert severe complications.

While healthcare providers play an essential role in detecting the earliest cases of infection with a pandemic influenza virus, making the diagnosis may be complicated by the lack of specific clinical findings and commercially available laboratory tests that can distinguish a novel or pandemic virus strain from seasonal influenza. Clinicians, under the best of circumstances in the midst of a pandemic, will face significant challenges to: 1) quickly identify and triage cases, 2) conduct efficient and thorough evaluations, 3) Initiate antiviral and other supportive therapies; and 4) anticipate clinical complications. Thus, mitigating the impact of an influenza pandemic consists of integrating sound clinical assessment, managing individual patients, and assessing locally available

medical resources (e.g., rapid diagnostics, antiviral drugs and vaccines, healthcare personnel, and hospital beds.)

The California Department of Public Health's (CDPH) main objectives for pandemic influenza case management and treatment are:

- Promote early identification, reporting, and proper management of cases to slow or contain the spread of disease in WHO Phase 3 and Phase 4;
- Provide education and guidance to local health departments in managing suspected and lab confirmed cases of novel virus strains as the pandemic evolves; and
- Communicate recommended practices, protocols and case management pertaining to avian and pandemic influenza to local health departments, healthcare providers and the public.

CDPH Pandemic Response Action Steps:
Inter-pandemic Period (WHO Phase 1 and Phase 2): No novel influenza subtypes have been detected in humans, but a novel subtype that has caused human infection may be present or circulating in animals.

- Pending CDPH Division of Communicable Disease Control (DCDC), in collaboration with the CDPH Joint Advisory Committee on Public Health Preparedness, will develop, update, and distribute California-specific guidelines for controlling inter-pandemic influenza in health care and other congregate settings at the start of the influenza season.

Based on CDC guidance, and in coordination with local health departments, CDPH will develop and distribute protocols on case management and laboratory diagnostics. CDPH will work with local health departments to distribute protocols to settings where cases and their contacts might be diagnosed.

CDPH will work with local health departments to ensure that clinicians and laboratory scientists know how to access the most current recommendations, for novel or pandemic influenza case identification, reporting, management, and laboratory testing.

Pandemic Alert Period (WHO Phase 3 and Phase 4): Human infection with no or very limited human-to-human transmission.

- In coordination with CDC, CDPH will be developing case management protocols to ensure that suspect human cases of novel or pandemic influenza virus infections are promptly identified, isolated, and source(s) of exposure (animal vs. human) determined. Case management protocols for clinicians will address:
    - Screening criteria (clinical and epidemiologic, including travel and occupation);
    - Notification of local health authorities;

- Case management (infection control precautions, laboratory testing, appropriate evaluation and treatment, nationally recommended management and treatment protocols); and
- Identification of potentially exposed contacts and assistance with management of contacts.

CDPH will be distributing to local health departments protocols on case management and laboratory diagnostics for avian and novel viruses as well as seasonal influenza virus.

CDPH and local health departments will continue to educate clinicians and laboratory scientists on how to access the most up-to-date recommendations for novel or pandemic influenza case identification, reporting, management, and laboratory testing.

Pending CDPH, in coordination with CDC guidelines, will distribute to local health departments revised guidance on vaccination, prophylaxis, and treatment, based on the most current national and state recommendations, including a prioritized list of treatment and prophylaxis recipients and ensure the revised guidance is available to health care institutions and practitioners.

Community Mitigation

In a unified command environment, the SCPHO will evaluate the implementation of community mitigation measures including social distancing, dismissal of schools and closure of sites where large numbers of people congregate. Each measure will be evaluated as to its effectiveness, complications related to the difficulty of implementation, and whether closure of one venue would create social congestion at another venue.

As it is determined to be necessary, the SCPHO will request that the Sacramento County Emergency Operations Coordinator coordinate with the Superintendent of Schools to dismiss the public schools and to coordinate the dismissal of students from private schools, universities, city/community colleges and trade schools. Every attempt will be made to make this a voluntary action on the part of the school administration. If necessary, the SCPHO may request an order from the CDPH Public Health Officer dismissing the schools. Implementation and coordination of school closure is the responsibility of the Sacramento County Emergency Operations Coordinator. Once it is determined that social distancing measures will be implemented, the SCPHO will recommend to the County Emergency Operations Coordinator that a local emergency be declared to allow for the redirection of funds to the pandemic response and for volunteers and government employees to be placed on Disaster Service Worker status. The legal authorities of the SCPHO are outlined in **Attachment A**.

Other venues that may be subject to closure are businesses, churches, public meeting places, recreational events, etc. In each case, the SCPHO will participate in the unified

command decision for the purposes of determining the need to increase community mitigation measures, and possibly order the closure. The County Emergency Operations Coordinator will implement the closures. As venues are closed, the SCPHO will issue public information messages about maintaining infection control in the home.

The SCPHO will determine the need for implementation of local ordinances to require hygienic measures under specific circumstances, such as the wearing of barrier masks while using public transportation. When such measures are recommended, the SCPHO will work with County Counsel to enact them.

The SCPHO will advise the County Emergency Operations Coordinator of the need to identify housing for people who may not be able to return home, including travelers who may have been visiting Sacramento County. Included herein are State Fair attendees, casino attendees, college students, commuters, and others. In a unified command environment, the SCPHO will evaluate the need to provide housing (shelter) for each identified group and will determine if open shelters are necessary or adequate, as opposed to providing individual shelters in hotel rooms. The Sacramento County Emergency Operations Coordinator is expected to direct shelter issues to the appropriate county official. The County Emergency Operations Coordinator is also expected to direct the appropriate county official to ensure the shelters can accommodate individuals with access and functional needs.

Community Mitigation Measures

Community mitigation measures are applied to specific groups and designed to reduce interactions of individuals within those groups. The goal is to reduce the risk of disease transmission. These are non-medical measures that may occur at two levels:

1. Measures that affect groups of exposed at-risk individuals
2. Measures that affect entire communities

When focused, the intervention is applied to groups or individuals located at specific sites or buildings. Most, but not necessarily all, of those people are at risk of exposure to influenza. Examples include the following:

1. Quarantine of groups in defined settings (e.g., schools, workplaces, airplanes)
2. Dismissal of schools
3. Closure of child and adult day care centers
4. Cancellation of public events
5. Closure of office buildings, and/or shopping malls
6. Closure of public transportation such as bus lines
7. Mandatory use of hygienic measures under specific circumstances

When community-wide measures are used, the measures affect the entire community, including both exposed and non-exposed people.

Figure B. Summary of the Community Mitigation Strategy by Pandemic Severity

Interventions* by Setting	Pandemic Severity Index 1	2 and 3	4 and 5
Home			
Voluntary isolation of ill at home (adults and children), combine with use of antiviral treatment as available and indicated	Recommend†§	Recommend†§	Recommend †§
Voluntary quarantine of household members in homes with ill persons¶ (adults and children), consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient	Generally not recommended	Consider**	Recommend **
School			
Child social distancing			
-dismissal of students from schools and school based activities, and closure of child care programs	Generally not recommended	Consider: ≤4 weeks††	Recommend: ≤12 weeks§§
-reduce out-of school social contacts and community mixing	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks§§
Workplace / Community			
Adult social distancing			
-decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)	Generally not recommended	Consider	Recommend
-increase distance between persons (e.g., reduce density in public transit, workplace)	Generally not recommended	Consider	Recommend
-modify, postpone, or cancel selected public gatherings to promote social distance (e.g., stadium events, theater performances)	Generally not recommended	Consider	Recommend
-modify work place schedules and practices (e.g., telework, staggered shifts)	Generally not recommended	Consider	Recommend

Source: "Interim Pre-Pandemic Planning Guidance-Community Strategy for Pandemic Influenza Mitigation in the United States", CDC, February 2007.

These planning recommendations are made on the basis of an assessment of the possible benefit to be derived from implementation of these measures weighed against the cascading second- and third-order consequences that may arise from their use. Cascading second- and third-order consequences are chains of effects that may arise because of the intervention and may require additional planning and intervention to mitigate. The recommended responses to a pandemic influenza arrival in the United States vary according to the severity of the disease and availability of vaccine. If vaccine is available, the County Health Department will implement vaccination administration through a variety of mechanisms.

Figure B summarizes the approach that may be taken in Sacramento County. For example, the length of school closure will depend on the severity index, with more extended closure recommended in the case of a more severe inflection. The most important strategy decision will be which mitigation measure to implement and for what period depending on recurrent outbreaks and waves of infection over time. Community mitigation actions for different settings will be implemented based on pandemic severity index in accordance with CDC recommendations.

Alert Period (Phases 3-5)

1. SCPH ensures that legal authorities and procedures are in place to implement the various levels of movement restrictions necessary.
2. In collaboration with the County EOC and Joint Information Center, SCPH informs key partners (news media and communication outlets, health care facilities, law enforcement, schools, and community groups) about the potential for focused measures and community-wide measures to decrease potential exposure and increase distance between people during influenza pandemic.

Pandemic Period (Phase 6)
Depending on where transmission is occurring, during the latest phase of the Alert Period and the early phase of the Pandemic Period, the Health Officer and DHHS Operations Center will assess conditions and determine the possible need for community mitigation measures. The Health Officer will request a MACC at the OAEOC to weigh the benefits and challenges of each option within the context of the status of the pandemic, and determine which measures will be implemented.

1. The Health Officer determines the need for community mitigation measures and the level of restriction on movement necessary to reduce the spread of disease transmission.
2. The Health Officer directs focused measures to increase social distance. Such actions include the following:
    b. Quarantine of groups of exposed people
    c. Dismissal of schools
    d. Closure of child and adult day care centers
    e. Cancellation of public events
    f. Closure of office buildings and/or shopping malls
    g. Closure of public transportation such as bus lines
3. The Health Officer directs community-wide measures to reduce personal interactions within a targeted geographical region.
4. The Health Officer directs widespread quarantine.
5. As necessary, the Health Officer obtains legal order for community mitigation measures.
6. The Joint Information Center Public Information Officer implements systems of communications for delivering relevant messages.
7. Law enforcement assists with enforcement of actions as necessary and available.

Targeted and Mass Vaccination and Prophylaxis

Vaccine, Medication and Prophylaxis Assessments

Part of the national influenza pandemic plan calls for each local health department to be able to estimate the potential impact of a pandemic in their locality. The CDC has developed a software program called FluAid 2.0 to provide local level planners with

estimates of potential impact specific to their locality. The software is designed to provide a range of estimates of impact in terms of deaths, hospitalizations, and outpatient visits due to pandemic influenza. The software distributes the defined population into three age groups (0-18 years, 19-64 years, and 65+ years), and two risk categories: high-risk and non-high-risk.

The software is also designed to provide an estimate of the number of influenza vaccine doses required to meet vaccination coverage. The total number of doses is broken down into 1st and 2nd dose, as well as into high-risk and non-high-risk population. The software provides the estimate of the total number of doses required to vaccinate a specified percentage of the population. And the software provides an estimate for the total doses that the public health system must administer and time needed to administer those doses to meet vaccination coverage.

Given the capability of FluAid 2.0 for estimating impact for hospitalization, outpatient visits, and vaccine requirements, these same numbers can be used to provide an estimate for potential demand of anti-viral drugs and antibiotics.

In the event vaccines are developed, it will be necessary to establish priority groups for vaccination. The SCPHO will participate in a statewide MACC to establish or confirm the allocation policy for vaccines. Once the vaccines are allocated to Sacramento County, the SCPHO will advise the Sacramento County Emergency Operations Coordinator of the need to arrange transport and security for the vaccines, and to arrange security for any mass vaccination sites. It is recognized that attempts to conduct large vaccination clinics when supplies are scarce may invite civil disturbances and that other methods of vaccine administration utilizing local health providers may be preferable. The SCPHO will activate the strategy for vaccination appropriate to the circumstances, taking into account the quantity of vaccine available, status of the pandemic, and options for vaccine distribution and administration. The impact of a pandemic flu outbreak is largely unknown and modeled on non-pandemic situations or from previous pandemics that may not be predictable indicators for the next pandemic. Give this uncertainty, the FluAid 2.0 system will be used to create a range of estimates of potential impact and will constantly be updated in an actual event to reflect identified existing patterns of impact.

Priority Vaccination

Priority vaccination of critical infrastructure personnel at highest risk for exposure will be based upon the guidelines set forth by DCEU, CDC and CDHS. In Sacramento County, “critical infrastructure” will focus on those functions essential to food, water, sanitation and shelter for the general public as well as those functions necessary to bring the pandemic itself to resolution. In addition, if there is insufficient vaccine to immunize all “critical infrastructure” personnel, vaccination may be delayed for those who can conduct work in sequestered environments at lower risk of exposure, and those who have access to personal protective equipment.

On September 1, 2008 the U.S. Departments of Health and Human Services and Homeland Security have released a "Guidance on Allocating and Targeting effective and consistent pandemic response by U.S. States and Pandemic-Influenza Vaccine". This document aims to ensure the allocation and use of vaccine will reduce the impact of a pandemic on the public health in the United States.

The guidance defines target groups by a common occupation, type of service, age group, or risk level, and clusters them into four, broad categories: homeland and national security; health care and community support; critical infrastructure; and the general population. These four categories together cover the entire U.S. population.

Across these categories, the Guidance advises, vaccine should be allocated and administered according to tiers in which all groups designated for vaccination within a tier have equal priority. Groups within tiers should vary depending on the severity of a pandemic.

Targeted (Ring) Vaccination

Ring vaccination is a principle containment strategy to protect those at the greatest risk for contracting influenza and forms a buffer of immune individuals to prevent the spread of disease. It is implemented by tracing, vaccination, and close surveillance of contacts of confirmed and suspected influenza cases as well as vaccination of the close contacts of these primary contacts.

The Health Officer or his/her designee will decide, in consultation with federal, state and other local officials, on the size of the vaccinated "ring" of individuals surrounding a case or contact based upon the size of the outbreak, personnel resources, effectiveness of supplemental outbreak control measures, and vaccine availability.

It should be noted that because of the severity of disease caused by pandemic influenza, everyone who has been in contact with a person with influenza, or was exposed to the virus, is advised to receive influenza vaccine, regardless of age, allergies, pregnancy, or medical conditions.

Mass Vaccination

The Sacramento County Immunization Assistance Program developed a Mass Vaccination Field Operations Guide (as part of Pandemic Influenza Response Plan, annex to Public Health Preparedness and Response Plan) which describes how the emergency preparedness unit would conduct a mass clinic to vaccinate large numbers of Sacramento County residents against diseases such as pandemic influenza if the need arises. An alternative to the mass vaccination clinic approach would be to utilize the healthcare community, pharmacies and other partners to vaccinate its patients according to guidelines established by CDC and CDPH.

Voluntary, large-scale, mass vaccination of part or all of Sacramento County may be required. Mass vaccination approaches are likely to be undertaken only when vaccine is available in ample supply. The mass vaccination component of this Pandemic

Influenza Response Plan is the most challenging operation to implement if the entire Sacramento County is targeted for mass vaccination. The challenge is primarily that of the scale of the operation to immunize within a limited period of time.

Surveillance and containment through an aggressive, effective ring vaccination program are very important targeting individuals at high risk of exposure which "buys time" while conducting mass vaccination in an expeditious a manner as possible. Given the extensive personnel resource requirements, this Pandemic Influenza Response Plan would implement mass vaccination of the entire Sacramento County by activation of mutual aid agreements to draw resources from outside of the County. If mutual aid agreements are not possible (due to mass vaccination being simultaneously conducted in many areas of the state and nation), then the Health Officer may invoke further emergency provisions such as on-the-job training of volunteer workers to staff influenza vaccination clinics and even administer influenza vaccine. To the extent that it is feasible, the SCPHO will support recommendations from CDPH and CDC to track vaccinated individuals in order to record adverse reactions.

Alternatives to Mass Vaccination and Prophylaxis

As the access to vaccines and antiviral drugs during a pandemic will be extremely limited, especially in countries with limited resources, non-medical interventions may be the only way to delay the spread of the disease. However, many of these interventions may affect human behavior and human rights, and therefore need a strong educational, legal and well-supported basis. Moreover, most of the interventions are based on limited evidence. Therefore, transparent decision-making and frank information-sharing should go hand in hand with the measures discussed in this section.

Antiviral Medications*:*

The SCPHO will develop recommendations for the use of antiviral medication interventions based upon guidance from the CDPH and CDC, and based upon the availability and type of antiviral drugs. Recommendations will address:

1. Testing guidelines for confirmation of exposure.
2. Treatment guidelines - whether antiviral medications should be used for post-exposure treatment, pre-exposure prophylaxis, or both; whether the medication is limited to specific risk groups; and whether antiviral treatment is limited to moderate to severely ill patients and the priority in which patients eligible for therapy will be considered for treatment.
3. Prophylaxis guidelines – post-exposure prophylaxis for close contacts of probable and confirmed cases; and pre-exposure prophylaxis.

Recommendations will be distributed to the medical community and will include information on the risk for drug resistance to develop and under what circumstances drug resistance may likely occur. In the event that mass distribution of antiviral drugs is undertaken, procedures will be established to report and monitor adverse effects and outcomes.

Distribution of Antiviral Medications*:* If the distribution of bulk antiviral medication from state or federal stockpiles is initiated, the distribution procedures established in the Strategic National Stockpile (SNS) Plan and the RSS Field Operations Guide (RSS-FOG) will be followed.

Distribution of state and federal medical supplies to hospitals, clinics, and other health care providers may have limitations on the prescribing provider including:

1. Must be provided to the patient at no cost.
2. May be limited to patients that have no insurance or other ability to pay.
3. May be limited to specific risk groups.
4. May be limited to moderate to severely ill patients.
5. Records must be kept regarding who received the medication.
6. Unused medication must be returned to SCPH.

Mass Dispensing to the General Population: If the mass distribution of antiviral medication from state or federal stockpiles to the general population is initiated, the distribution procedures established in the Strategic National Stockpile (SNS) Plan and the Point of Dispensing Field Operations Guide (POD-FOG) will be followed.

The SCPHO will confer with the CDPH Director of Public Health on vaccination and/or prophylaxis of exposed persons, and prophylaxis of priority groups. Local strategies for management of vaccine and other treatment resources that are in limited supply will consider recommendations from CDC, CDPH, the role of prioritized groups in supporting the ultimate desired outcome, the availability of workable alternatives (e.g., sequestration of personnel, use of PPE), and ethical and logistical factors. SCPHO will advise the CDPH of any shortfalls in prophylactic medications and case management medications.

Healthcare Surge Capacity

As pandemic influenza cases are confirmed in Sacramento County, it will be necessary to increase the capacity to provide medical care. Medical surge capacity refers to the ability to evaluate and care for a markedly increased volume of patients – challenging or exceeding the normal capacity of a hospital or healthcare system. Individual hospitals plan for and routinely handle surge requirements resulting from seasonal fluctuations in respiratory ailments, environmentally based conditions, and community incidents. In Sacramento County, as throughout most of California, hospitals routinely operate at or near capacity. Moderately-sized incidents are handled in accordance with the Region IV Multi-casualty Incident Plan. Patients are transported to hospitals throughout the county and throughout the region to avoid overloading any single hospital. However, very large-scale incidents or widespread disease outbreaks may overwhelm the capacity of all hospitals and other healthcare providers in a region. Responding to such incidents requires the close coordination and cooperation of hospitals, long-term care facilities, community clinics, and governmental agencies.

The SCPHO, through the designated MHOAC, will review the daily health care facility bed reports, identify the potential shortfall and alert the Sacramento County Emergency

Operations Coordinator of the need to activate alternate care sites (ACS). As the demand for healthcare services increases and existing healthcare facility assets become exhausted, the local or state government will have to step in and issue permission for government authorized Alternate Care Sites (ACS's) to absorb the patient load until the local healthcare system recovers from a Level III or Level IV Surge Event.

Assumptions:

1. Government-authorized Alternate Care Sites should be viewed as a last resort in the healthcare response to a catastrophic disaster.
2. Government-authorize Alternate Care Sites should plan to operate for duration of several months to a year depending on the nature of the healthcare surge and patient needs.
3. Lifesaving response will be performed by local emergency responders and residents in the impacted area regardless of the efficiency of State and federal response systems.
4. Government-authorized Alternate Care Sites will operate in an uncertain environment and will require community "all-hands" approach.
5. Affected populations will converge on known medical facilities such as hospitals, long-term care facilities and clinics, regardless of their operational status. Affected populations will also converge on government-authorized Alternate Care Sites if their locations are known to the public.
6. Government-authorized Alternate Care Sites will require significant resource coordination, which will be operated according to the SEMS/NIMS process.

In a unified command environment, the SCPHO, the County Emergency Operations Coordinator, local EMS Agency representative, and health care representatives will assess the medical assets available to Sacramento County, including medical supplies, equipment and medical staff, and determine the level of care that will be provided at the ACS. The SCPHO will request a MACC with the CDPH and other statewide public health officials to determine the allocation of additional beds provided by mobile hospitals, caches of medical supplies, and medical staff resources. SCPHO will request CDPH ensure issuance of any Governor's Executive Orders relating to medical surge and scope of practice.

The County Emergency Operations Coordinator will activate, set-up/establish the ACS, provide security, and assist in arranging transport of patients to the sites. The SCPHO, through the designated MHOAC, will advise the health care facilities of the level of care to be provided at the sites, advise them to implement the triage system described in the Alternate Care Site Plan (refer to the Triage Procedure), and begin directing patients to the sites. The MHOAC will direct the manager of each ACS to report bed counts daily.

As it is determined that health care facilities are being overwhelmed, the SCPHO will issue public information requesting that family members provide care at home. The

directives will include information on the types of care to be given at home, and infection control for the care giver. CDC released information for public "The Flu. Caring for someone sick at home" dated December 2010 with extensive home care instructions. Additional information can be found online at www.cdc.gov/flu or www.flu.gov. Services in English and Spanish are available 24 hours a day by phone 1-800-CDC-INFO (1-800-232-4636). **Attachment F** is an example of information that will be provided on in-home care. (Updated 2015: : http://www.cdc.gov/flu/homecare/index.htm)

All local hospitals in Sacramento County maintain their own inventory of essential medical resources and supplies including critical care beds, ventilators, PPE, durable and disposable medical equipment and pharmaceuticals. Refer to Sacramento County Hospitals Emergency Preparedness Plan (SCHEPP) and Mutual Aid Memorandum of Understanding for coordination strategies among healthcare facilities and providers for sharing critical resources during an influenza pandemic.

The process for establishing ACS during a pandemic is developed in Healthcare Surge and Alternate Care Site Plan (June 2009 draft). List of potential sites for ACS facilities are maintained by OES. These sites surveyed and approved by American Red Cross and OES. Plans to triage patients to ACS and operation of ACS including assignment of personnel, securing equipment and supplies and their storage are also outlined in the ACS Plan draft.

Management of Mass Fatalities

Fatality management is the responsibility of the County Coroner. It is a shared responsibility between the health care facility where an individual died, the family if the individual died at home, and the coroner, if the individual's death is to be investigated. Local Hospitals and the Coroner have their own plans to manage large number of fatalities.

In the event of a pandemic, the health care facilities ability to store human remains, the mortuary ability to preserve and dispose of remains, and the Coroner's ability to investigate or store remains may be overwhelmed. The role of SCPHO is to determine if the remains present a threat to the health of the public.

In the event of mass fatalities that overwhelm the capacity of healthcare facilities and mortuaries, the Coroner will advise the SC Emergency Operations Coordinator of the need to find additional storage or disposal capability. The SCPHO will participate in a unified command decision making process regarding the recommended process to store or dispose of human remains. The SCPHO will recommend to the Sacramento County Emergency Operations Coordinator that information on management of human remains be released to the public. With support from County Vital Records, the SCPHO will coordinate with hospitals, funeral homes, and the Coroner on how to obtain or issue death certificates on an expedited basis.

Planning Appendices

Appendix F: Plan Update and Maintenance

Change Number	Date	Person making change	Summary of change
1	Winter 20/21	Jamie White	General Updates

Note: Changes prior to 2020 not documented above

Appendix G: Plan Development/Working Group

Sacramento County Public Health	
Rachel Allen	Pan Flu Coordinator/ IAP Coordinator
Jamie S. White	Program Manager, PHEP, Epi, VR
Dr. Anthony Gonzalez	Public Health Laboratory Chief
Karen Olson	PHEP Program Planner
Hannah Aalborg	PHEP MCM Coordinator
Karman Tam	Epidemiologist

Appendix H: MOUs and MOAs

Type	Organizations Involved	Facility Contact

Appendix I

Intentionally held blank

Operational Appendices

Appendix J: Initial Assessment and Response Meeting

IARM Guide

For Use During the Initial Assessment and Response Meeting (IARM)

A. Assess the Situation (current and potential impact)

1. What type event: disease or illness, bio terrorism, extreme weather, shelter operations…
2. Is the health risk confined to one segment of our community or to the community at large?
3. If the event is disease related do we know the exposure pathways?
4. Have local medical and health care facilities been affected?
5. What other agencies and organizations are currently responding or set to respond?
6. Have any of the {insert county Public Health agency/organization} operations been affected?
7. Have critical infrastructures been affected?
8. Have communications systems been affected?
9. Is this a local, regional, statewide or national situation?
10. Has any agency declared that we take specific actions related to this event?

B. Based on the above assessment do any of the following actions need to be taken?	
1. Does provider health alert need to go out?	Yes ☐ No ☐
2. Do we have a pre-scripted message or fact sheets?	Yes ☐ No ☐
3. Do we need to start an Investigative Report?	Yes ☐ No ☐
4. Is there a recommended action or existing plan for this situation?	Yes ☐ No ☐
5. Do we need to consider suspending non-essential services?	Yes ☐ No ☐
6. Does the incident currently, or do we expect that it will soon, exceed our capacity to respond or require more coordination?	
If yes to 5 or 6 move to ICS model, activate DOC, & prepare to divert staff to the response	

C. Identify additional information needed to assess threat and/or take action and assign staff

D. Suggested Agencies and staff that Public Health may need to notify (This is not a comprehensive list of all possible contacts. Notifications will depend on the situation)

- ❑ Other Public Health staff
- ❑ {insert county Public Health agency/organization} Staff
- ❑ Other County departments
- ❑ Local City & Towns
- ❑ EMS & other healthcare providers
- ❑ Local OES
- ❑ Local schools
- ❑ EMSA/CDPH Duty Officer
- ❑ CDPH
- ❑ Region {insert region number}county public health jurisdictions

IARM Sample Meeting Agenda

IARM Agenda Topics (sample)	
Information –What we know: sharing current information only. Deciding and assigning actions comes later in the meeting. 1. Situation status overview given by meeting lead 2. Roundtable report out/sharing of information by participants 3. Sharing of actions already taken by participants or agencies	10 Minutes
Assessment –Assess the situation and determine immediate impact or severity of the event. *{See internal Initial Threat and Response Meeting Guide or develop one}* 1. Assess the current and potential impact of the event using 2. Actions to consider	10 Minutes
Based on assessment identify and assign immediate actions needed 1. Confirm internal and external notifications needed and assign responsibility and timeline 2. Confirm action items and assign responsibility and timeline 3. Confirm what additional information is needed	15 Minutes
RAP – Up 1. Review decisions and assignments 2. Assure that all participants are clear on the decisions and their action items 3. If it appears that the event will be resolved using usual day-to-day work processes schedule one follow-up meeting If it is evident that a larger or coordinated response will be required do the following: a. move to ICS mode and assign command and section chief staff b. activate appropriate DOC level c. make staff assignments d. schedule Initial Action Planning meeting	10 Minutes
Adjourn meeting – Remind participants to continue documenting their activities in their Individual Activity Log until the event is closed. (ICS 214)	

Appendix K: Notification and Alerting

See DHS CERC Plan

Appendix L: Supporting Annexes and Plans

Name of Plan	Location
Communicable Disease Outbreak Response Plan	SCPH
CERC Plan	DHS
Mass Fatality Plan	Coroner
Mass Prophylaxis Plan	SCPH
DHS Emergency Operations Plan	SCPH
Sacramento County Emergency Operations Plan	OES