

# Pandemic Influenza

## Preparedness & Response Plan

# DRAFT

**Public Health Department**  
Santa Clara Valley Health & Hospital System



March 31, 2006

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Pandemic Influenza Preparedness & Response Planning Team**

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**Public Health Department**  
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# Pandemic Influenza

Preparedness & Response Plan

## Preamble

Preamble



**Public Health Department**  
Santa Clara Valley Health & Hospital System



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# PREAMBLE

## INTRODUCTION

### Description and History of a Pandemic

An influenza pandemic is a worldwide outbreak of disease that occurs when a new influenza virus appears or “emerges” in the human population, causes serious illness and then spreads easily from person to person worldwide. Pandemics are different from seasonal outbreaks of influenza. Seasonal outbreaks are caused by subtypes of influenza viruses that already circulate among people, whereas pandemic outbreaks are caused by entirely new subtypes to which the population has no immunity because the subtype has either never circulated among people, or has not circulated for a long time.

Influenza occurs routinely worldwide each year, causing an average of 36,000 deaths annually in the United States. Nearly 40 years have passed since the last influenza pandemic. Conditions worldwide are again favoring the appearance of a new pandemic strain of influenza. Planning at all levels of society must quickly begin to prepare for this very large-scale event.

Influenza viruses experience frequent, slight changes to their genetic structure. Occasionally, however, they undergo a major change in genetic composition. It is this major genetic “shift” that creates a “novel” virus and the potential for a pandemic. The creation of a novel virus means that most, if not all, people in the world will have never been exposed to the new strain and have no immunity. A new vaccine must be developed to protect the population from the new virus strain, a process that takes 6-9 months. During this time, many people are likely to become infected.

Over the last 400 years, there have been 12 influenza pandemics, three of them during the last century. The influenza pandemic of 1918 was especially virulent, killing a large number of young, otherwise healthy adults. The pandemic caused more than 500,000 deaths in the United States and more than 40 million deaths around the world. Subsequent pandemics in 1957-58 and 1968-69 caused far fewer fatalities in the U.S., 70,000 and 34,000 deaths respectively, but caused significant morbidity and mortality around the world.

### Estimates of Local Morbidity and Mortality

Using estimates from the 1968-69 minor pandemic years, the Centers for Disease Control and Prevention (CDC) estimates that **in the U.S. alone, an influenza pandemic could infect up to 200 million people and cause between 100,000 and 200,000 deaths.** Scientists and health

officials throughout the world predict that more influenza pandemics will occur in the 21<sup>st</sup> century.

To maximize our level of readiness in Santa Clara County, we are planning for a more serious scenario similar to the 1918 “major pandemic”. The Public Health Department is assuming that 25% of Santa Clara County’s 1.8 million population, or 450,000 people, will become clinically ill over the course of a 12 to 24-month pandemic. In a normal flu year, 5-10% of the population will become ill, and of those who become ill .12% to .24% will die. If we assume a case-fatality rate of 2.5% (consistent with the 1918 Spanish Flu), then we should expect 11,250 deaths. Given the current greater than 50% case fatality rate of H5N1, we are including estimates up to a 5% case-fatality rate, or 22,500 deaths.

<b>Impact of Influenza during a typical season - U.S. and Santa Clara County</b>				
	Population	Clinically Ill (5 – 10%)	Hospitalized (.06-.13%)	Deaths (.12-.24%)
U.S.	297.7 million	15 - 30 million	200,000	36,000
Santa Clara County	1.8 Million	90,000 – 180,000	1,200	200

<b>Potential Impact of a 1969-like “minor” Pandemic - U.S. and Santa Clara County</b>				
	Population	Clinically Ill (15-35%)	Hospitalized (.04-.09%)	Deaths %
U.S.	297.7 million	45 - 104 million	314,000 - 734,000	89,000 - 207,000
Santa Clara County	1.8 Million	270,000 – 630,000	1,700 – 6,300	600 - 1,900

<b>Potential Impact of a 1918-like “major pandemic” Pandemic - U.S. and Santa Clara County</b>				
	Population	Clinically Ill (15 – 35%)	Hospitalized (13.2-22%)	Deaths (2.5-5.0%)
U.S.	297.7 million	45 – 104 million	9.9 – 16.5 million	1.8 – 3.7 million
Santa Clara County	1.8 Million	270,000 – 630,000	61,000 – 143,000	11,250 – 22,500

Several characteristics of an influenza pandemic differentiate it from other public health emergencies. First, it has the potential to cause illness in a very large number of people, overwhelming the health care system throughout the nation. A pandemic outbreak could also jeopardize essential community services by causing high levels of absenteeism in critical positions in every workforce. Basic services, such as health care, law enforcement, fire, emergency response, communications, transportation, and utilities could be disrupted during a

pandemic. Finally, the pandemic, unlike many other emergency events, will last for months rather than days or weeks. Supply chains for essential items such as food, water, and other emergency provisions will be compromised. Therefore, it is critically important to have supplies purchased and stored ahead of time.

**Classification of Pandemic Influenza**

The World Health Organization (WHO) has developed a worldwide influenza preparedness plan that includes a classification system for guiding planning and response activities. This classification system is comprised of six phases of increasing public health risk associated with the emergence and spread of a new influenza virus subtype. The Director General of WHO formally declares the current global pandemic phase and adjusts the phase level to correspond with pandemic conditions around the world. For each phase, the global influenza preparedness plan identifies response measures WHO will take, and recommends actions that countries around the world should implement.

As of the writing of this plan (March 2006), we are at Pandemic Alert, Phase 3, identified in bold below.

Pandemic Phases	Public Health Goals
<p><b>Interpandemic Period</b></p> <p><i><b>Phase 1</b></i> – No new influenza virus subtypes detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered low.</p> <p><i><b>Phase 2</b></i> – No new influenza virus subtypes detected in humans. However, a circulating animal influenza virus subtype poses substantial risk of human disease.</p>	<p>Strengthen influenza pandemic preparedness at all levels.</p> <p>Minimize the risk of transmission to humans; detect and report such transmission rapidly if it occurs.</p>
<p><b>Alert period</b></p> <p><i><b>Phase 3</b></i> – <b>Human infection(s) are occurring with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.</b></p> <p><i><b>Phase 4</b></i> – Small cluster(s) of human infection with limited human-to-human transmission but spread is highly localized suggesting that the virus is not well adapted to humans.</p> <p><i><b>Phase 5</b></i> – Larger cluster(s) of human infection but human-to-human spread is localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).</p>	<p>Ensure rapid characterization of the new virus subtype and early detection, notification and response to additional cases.</p> <p>Contain the new virus within limited foci or delay spread to gain time to implement preparedness measures, including vaccine development.</p> <p>Maximize efforts to contain or delay spread to possibly avert a pandemic, and to gain time to implement response measures.</p>

<p><b>Pandemic Period</b></p> <p><b>Phase 6</b> – Pandemic is declared. Increased and sustained transmission in the general population.</p>	<p>Minimize the impacts of the pandemic.</p>
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Influenza pandemics generally occur in waves with 3 to 9 months between waves. This cycle begins with a spike in cases and is followed by a drop and, then, resurgence of cases. The 1918 pandemic had three waves, while the 1958 and 1968 pandemics each had two waves. The reason for the wave behavior is not known. Therefore, the 450,000 illnesses that might occur during a major pandemic in Santa Clara County would not occur evenly over the course of the outbreak but, rather, in several unpredictable waves.

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## PLANNING ASSUMPTIONS

Due to the uncertainty about the timing, trajectory and ultimate impact of a pandemic flu in Santa Clara County, the following assumptions underlie the contents of this preparedness and response plan. These assumptions include potential scenarios and impacts in the context of Santa Clara County.

1. An influenza pandemic will result in the rapid spread of infection with outbreaks throughout the world. Communities across the state and the country may be impacted simultaneously. Santa Clara County will not be able to rely on timely or effective mutual aid resources, State or Federal assistance to support local response efforts.
2. An influenza pandemic may occur in waves and last for 12 to 24 months.
3. Residents will be required to stay in their homes for a significant period during an influenza pandemic; thus, residents will need public information, education and tools so they are prepared to take responsibility for basic needs (food, water, prescription medications, over-the-counter medications, etc.). Antiviral medications will be in extremely short supply. Administration of local supplies of antiviral medications will be prioritized by Santa Clara County Public Health Department.
4. A vaccine for the pandemic influenza strain will likely not be available for 6 to 8 months following the emergence of a novel virus.
5. The number of ill people requiring outpatient medical care and hospitalization will overwhelm the local health care system. In other words, the normal amount and level of hospital care will not be available.
  - a. Hospitals and clinics will have to modify their operational structure to respond to high patient volumes and maintain functionality of critical systems.
  - b. The health care system will have to respond to increased demands for service while the medical workforce experiences 25-35% absenteeism due to illness or caring for ill family members.
  - c. Demand for inpatient beds and assisted ventilators could increase by ten fold or more and patients will need to be prioritized for services.
  - d. There will be tremendous demand for urgent care services.

- e. Hospital infection control measures specific to management of large numbers of influenza patients will need to be developed and implemented.
  - f. The health system will need to develop alternative care sites to relieve demand at hospitals.
  - g. Emergency Medical Service responders will face extremely high call volumes, and may face 25% - 35% reduction in available staff.
  - h. The number of fatalities will overwhelm the resources of the Medical Examiner's Office, morgues and funeral homes.
  - i. The demand for home care and social services will increase dramatically.
6. There will likely be significant disruption of public and privately owned critical infrastructure including transportation, commerce, utilities, public safety and communications; thus, planning for continuity of operations is essential.
  7. Social distancing strategies aimed at reducing the spread of infection such as closing schools, community centers, and other public gathering points and canceling public events will likely be implemented during a pandemic.
  8. Risk Communication will be critically important during all phases of planning and implementation of a Pandemic Influenza Response.
  9. The response to Pandemic Influenza will operate under the Standardized Emergency Management System (SEMS).

## **PURPOSE AND GOALS OF THE PLAN**

This pandemic preparedness and response plan aims to develop a coordinated countywide strategy through shared responsibility. It has three main purposes:

1. Serve as a planning guide for the Public Health Department and other county departments to prepare and respond to a pandemic.
2. Provide guidance and tools to the many partners in the community who will be involved in preparing for and responding to a pandemic.
3. Guide activities to educate and prepare the general public regarding this public health threat.

Ultimately, when the plan is implemented, the intention is to minimize the impact of the pandemic in Santa Clara County and to protect the public's health by achieving these goals:

1. Limit the number of illnesses and deaths.
2. Preserve continuity of essential government functions.
3. Minimize social disruption.
4. Minimize economic losses.

## **ORGANIZATION AND SCOPE OF THE PLAN**

### **Scope of the Plan and its Relationship to Other Plans**

The scope of the Pandemic Flu Plan includes actions defined in each of the plans mentioned below, but makes them operational and specific to the pandemic flu context. Pandemic flu response efforts will likely trigger the activation of plans external to the SCCPHD, including the hospital's infection control and surge capacity plans, business continuity of operations plans, government continuity of operations plans, etc.

The Pandemic Flu Plan is an annex to the Santa Clara County Public Health Department Emergency Operations Plan (Volume 2, Annex G). The Pandemic Flu Plan will be implemented in tandem with the Emergency Operations Plan. Several portions of the existing Emergency Operations Plan are particularly relevant to pandemic flu response. These include:

1. Risk Communication Plan (Volume 1, Annex C)
2. Disease Surveillance and Disease Outbreak Investigation (Volume 2)
3. Strategic National Stockpile Plan (Volume 2, Annex D)
4. Mass Prophylaxis Plan (Volume 2, Annex E)
5. Isolation and Quarantine Plan (Volume 2, Annex F)
6. Mass Fatality Plan (Volume 2, to be developed)

## **Critical Capacity Modules**

The Pandemic Flu Plan is presented in the format of critical capacity modules (CCM). Each CCM encompasses a set of actions that are **critical for effective preparedness and response** in the event of pandemic influenza. The eight modules included in the plan are:

1. Legal Authority
2. Surveillance (includes laboratory)
3. Health Care
4. Limiting the Spread of Disease
5. Clinical Guidelines and Disease Management (includes vaccine and antiviral distribution)
6. Public Health Risk Communication
7. Psychosocial Support
8. Essential Services (local government, businesses, schools)

Each CCM provides an introduction to the topic, a description of the critical capacity elements requiring specific actions and tools to assist in implementing the recommended actions. As appropriate, the actions are organized by pandemic period, **alert period** or **pandemic period**, to emphasize what actions need to occur in each period. The tools are numbered as they appear in the document and are located in the appendices at the end of the document.

## **COORDINATED RESPONSIBILITIES FOR PREPAREDNESS AND RESPONSE**

The Santa Clara County Public Health Department is the lead agency involved in planning and preparing for pandemic influenza and responding to the pandemic when it occurs as it relates largely to medical/health issues. Implementation of this plan will enable the Public Health Department to fulfill its significant roles and responsibilities for a coordinated strategy aimed at protecting the public's health and minimizing the impact of the pandemic influenza in Santa Clara County.

Figure 1 below illustrates the **relationship between the impact of a pandemic influenza and the level of preparedness**. To minimize impact, effective preparedness and response requires



the active participation of numerous parties whose responsibilities are summarized below. Specific responsibilities for key response partners are included to highlight points of coordination between agencies during a pandemic. 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. The SCCPHD will monitor partners' progress and report back to the County leadership. The County-wide Medical Response System (CMRS) Steering Committee will participate in the review of the Pandemic Influenza Preparedness and Response Plan, and CMRS members will be key partners in the implementation of the plan's modules. The responsibilities of partners for effective preparedness and response related to pandemic flu are described and presented below in alphabetical order.

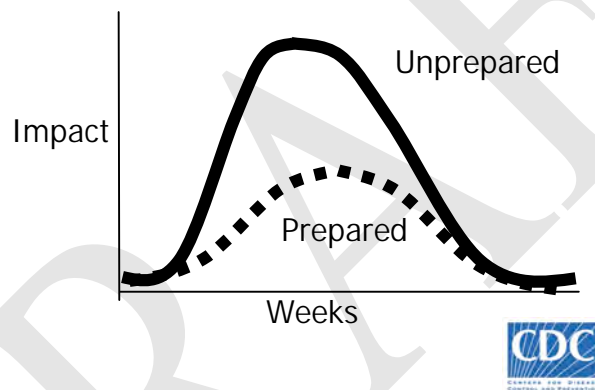


Figure 1. Pandemic Influenza Doctrine: Preparedness Minimizes Impact

### **Businesses**

Local businesses, in order to protect their businesses' viability, employees, clients and customers during a pandemic, should plan for a continuity of operations in the event that infrastructure and other services are disrupted. Disruption of services and supplies may be due to high absenteeism among their own employees and customers and/or absenteeism in outside partners, services or other organizations. Business plans should address how to continue to function due to a lack of utilities, supplies, deliveries and staff. Two important aspects, where applicable, will be to address providing essential products to the public (e.g., food, water and pharmacy merchandise) and planning for the potential suspension of business services that involve public assembly (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 (i.e., "no work

while sick” and infection control practices, such as covering cough and washing hands). Local businesses may be asked to provide resources for the pandemic flu response (i.e., vacant space for Influenza Care Centers, critical supply provision, etc.).

### **California State Department of Health Services (CDHS)**

The CDHS coordinates planning and preparedness efforts, surveillance activities, and disease containment strategies at the state level and across multiple counties and regions within the state. Additionally, the CDHS is responsible for operating a biosafety level 3 laboratory, coordinating the receipt and distribution of pandemic information, distributing antiviral medicines and vaccines from the Strategic National Stockpile to local health departments, 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).

### **City Government**

City governments should have continuity of operations plans that consider the likelihood of a flu pandemic; take steps to limit the spread of flu within their jurisdictions (i.e., “no work while sick” and personal hygiene practices); and cooperate with SCCPHD to provide resources for the pandemic flu response (e.g., vacant space for Influenza Care Centers, critical services provision, etc.). City government has a direct role in coordinating emergency services, providing law enforcement and providing Disaster Service Workers in response to a pandemic influenza.

### **Colleges and Universities**

Colleges and universities will need to incorporate some of the responsibilities of businesses, schools, and city government. Depending on their size, they may need to secure space for Influenza Care Centers and/or mass prophylaxis sites, address how to provide 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 (i.e., “no work while sick” and “no school while sick” policies and personal

hygiene practices); and cooperate with SCCPHD to provide resources for the pandemic flu response (e.g., vacant space for Influenza Care Centers, critical supply provision, etc.).

### **Community-based and Faith-based Organizations**

Community-based and faith-based organizations will be responsible for their own continuity of operations planning in the event of an influenza pandemic. Additionally, 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.

### **Coroner/Medical Examiner**

The Coroner will be responsible for planning for the disposition of an increased number of deceased persons, consistent with the Mass Fatality Plan.

### **County Government**

The Santa Clara County government will have various important roles. As an employer and provider of services, county government will need to develop continuity of operations plans to protect the health and safety of its employees and customers and to minimize disruption for its delivery of essential services. County government also plays a leadership role in the pandemic influenza response as part of its Office of Emergency Services (OES), which will provide and coordinate logistical support (in coordination with cities). In addition, County government will be involved in monitoring the state of the pandemic and supporting the Health Officer in establishing necessary social distancing measures. The County government will need to develop a plan that addresses roads, air travel, and provision of critical County services, such as social services, health services and jail services. The County will need to take steps to limit the spread of flu within its workplace (i.e., “no work while sick” and personal hygiene practices); and cooperate with SCCPHD to provide resources for the pandemic flu response (e.g., vacant space for Influenza Care Centers, critical services provision, staffing, equipment, etc.). Finally, all County employees may be called upon to serve as Disaster Service Workers during the pandemic.

### **Emergency Medical Systems (EMS)/Pre-Hospital Responders**

EMS will be responsible for 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 will need to plan for

and train personnel in personal protective equipment and other disease and infection control measures.

### **Environmental Health**

Environmental Health will support the delivery of messages regarding infection control, especially in food establishments. Environmental Health will assist in the planning for disposal of infectious waste.

### **Fire Services**

As critical first responders, City and County Fire Departments will need to plan for increases in employee absenteeism due to the pandemic flu and an increase in demand for services. Fire Services will need to plan for and train personnel in personal protective equipment and other disease and infection control measures. Fire Services should have continuity of business plans that consider the likelihood of a flu pandemic; take steps to limit the spread of flu within their jurisdictions (i.e., “no work while sick” and personal hygiene practices); and cooperate with SCCPHD to provide resources for the pandemic flu response.

### **Individual residents**

Individuals and families, in order to protect themselves and limit the spread of the disease, will need to take responsibility for keeping informed about the risk for pandemic flu and take appropriate common-sense actions such as practicing good hygiene and preparing their own pandemic flu emergency kits. Individuals and families should also become familiar with isolation, quarantine and social distance measures they may be required to take during a pandemic. Households will need to make contingency plans for scenarios such as closure of daycare and school facilities.

### **County Legal/Court System**

Santa Clara County Counsel is responsible, in coordination with the Health Officer, for developing and refining Public Health orders for a Declaration of Emergency, Health Officer Orders, and other related disease containment orders. The Court System ensures that citizens are afforded their due process as they are asked to comply with such orders. County Counsel and the Court system may assist in reviewing and resolving any legal issues that arise related to workplace, occupational health, labor relations and overall medical response activities.

## **Law Enforcement**

The main responsibilities of law enforcement will be to provide security and assist in the enforcement of Health Officer Orders as necessary. Security issues will be likely at hospitals, Influenza Care Centers, closures of venues, etc. Law Enforcement will need to plan for and train personnel in personal protective equipment and other disease and infection control measures. Law enforcement should have continuity of business plans that consider the likelihood of a flu pandemic; take steps to limit the spread of flu within their workplace (i.e., “no work while sick” and personal hygiene practices); and cooperate with SCCPHD to provide resources for the pandemic flu response.

## **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. To this end, local healthcare system partners should:

1. Develop a pandemic flu plan that details surge capacity addressing staffing, bed capacity, and stockpiling of food, water, fuel, and patient care equipment and supplies.
2. In the event of a pandemic, conduct enhanced surveillance among patients, staff and visitors.
3. Comply with public health orders for detecting, preventing and reporting cases of pandemic flu.
4. Implement appropriate infection control measures.
5. Develop and provide education and training to healthcare staff on recommended aspects of pandemic influenza.
6. Comply with admission and triage guidelines provided by the CDC or SCCPHD.
7. Comply with Occupational Health Guidelines provided by SCCPHD for healthcare staff.
8. Cooperate with SCCPHD by providing estimates of quantities of vaccine for healthcare staff and patients and develop a vaccination plan for own facility.
9. Plan for additional site security for own facility.
10. Develop plan for Care of the Deceased and cooperate in fatality management with guidance from the County Coroner.

11. Participate in a Pandemic Flu Health Care Task Force of the CMRS established by SCCPHD to maximize the health care system's ability to provide medical care during a pandemic. Specific responsibilities of the Health Care Task Force include:
  - a. Identify and prioritize response issues affecting the county-wide health system during a pandemic.
  - b. Develop mechanisms to efficiently share information and resources between health system partners.
  - c. Identify and communicate policy level recommendations regarding the operations of the local health system to the Local Health Officer for action.

### **Mental Health**

Mental health professionals have a key role in planning for psychosocial services for responders and the community at-large. During a pandemic, mental health professionals will likely experience high levels of service demand, coupled with high employee absenteeism. The SCC Mental Health Department will develop and implement a plan to address the psychosocial needs of health care workers, Disaster Service Workers, Santa Clara County employees, and the community at large. This will require planning for maintaining essential workers and increasing staffing capacity as necessary.

### **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 need to consider planning for their continued operations during a pandemic, addressing the issue of high absenteeism at all levels of their organization. With guidance from the Santa Clara County Public Health Department (SCCPHD), news media organizations may want to provide personal protective equipment to reporters, camera operators and any other personnel expected to work in a public and potentially contagious setting.

### **San Jose International Airport**

The San Jose International Airport will collaborate with SCCPHD to prepare for evaluating and managing ill travelers at ports of entry; establishing quarantine for those exposed to ill travelers; distributing health information for travelers; establishing enhanced surveillance at ports of entry during the early stages of the pandemic; and implementing the cancellation or limitation of nonessential travel to affected countries as directed by CDC.

### **Santa Clara County Public Health Department (SCCPHD)**

The SCCPHD has a lead role in mobilizing partners in the county to prepare for and respond to pandemic influenza. To this end, the SCCPHD will:

1. Facilitate countywide pandemic planning and preparedness efforts.
2. Coordinate the community's emergency public health response through DEOC.
3. Educate the public and health care, response partners, businesses, community-based organizations and elected leaders about influenza and preventive measures.
4. Conduct county-wide surveillance to track the spread of the disease and its impact on the community.
5. Propose a declaration of Health Emergency when appropriate.
6. Implement disease containment strategies and authorities, such as social distancing.
7. Guide the health care system's planning and response efforts for medical surge capacity including mass casualty and mass fatality incidents.
8. Direct mass vaccination efforts. Plan for antiviral dispensing.
9. Provide effective communications to the public, the media, elected officials, health care providers, law enforcement, first responders, and business and community leaders throughout public health emergencies.
10. Monitor and report on the state of readiness of critical partners (e.g., cities, schools, businesses as well as local, state and federal governments).

### **Schools (Including Preschools, Child Care Centers, Family Day Care Providers)**

All school districts will need to take steps to limit the spread of flu within the school (i.e., "no work while sick" for employees, "no school while sick" for students, and personal hygiene practices). Schools should have contingency options if schools are closed as part of a social distancing strategy (e.g., home schooling lesson plans for parents; catch-up school calendars, etc.). Schools may need to be closed for as long as several months.

### **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.

## **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.

## **SPECIAL POPULATIONS**

Preparing for pandemic influenza requires specific attention to special populations to ensure effective outreach and education. The definition of special populations extends beyond the notion of preparing to meet the culturally and linguistically diverse populations in Santa Clara County. SCCPHD and its partner agencies have a common practice to provide multilingual and culturally competent services. Such practice will be integrated into pandemic influenza preparedness and response efforts. In the context of pandemic influenza, special populations refer to:

1. Members of our community with little or no ability to successfully address, implement or be fully responsible for their own emergency preparedness, response and recovery.
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.

Several categories of special populations have been proposed and are defined below<sup>1</sup>.

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.

1. Physically disabled: Ranges from minor disabilities causing restriction of some motions of activities, to totally disabled requiring full-time attendant care for feeding, toileting and personal care.
2. Mentally disabled: Ranges from minor disabilities where independence and ability to function in most circumstances is retained, to no ability to safely survive

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<sup>1</sup> University of Albany Center for Public Health Preparedness, Webcast on Special Needs Populations. Jan. 12, 2006



- independently, attend to personal care, etc. This also includes people whose mental illness makes them a danger to themselves or others.
3. Blind: Includes the range of visual challenges and impairments—low vision, night blindness, color blindness, depth perception challenges, situational loss of sight, etc.
  4. Deaf: Includes late-deafened, hearing impaired, hard-of-hearing and the range of hearing challenges and impairments such as situational loss of hearing, limited-range hearing, etc.
  5. Medically dependent/fragile: Includes people dependent on life sustaining medications such as with HIV/AIDS and diabetes, or dependent on medications to control conditions and maintain quality of life such as pain or seizure control medications, etc.
  6. 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.
  7. 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 considerations.
  8. Clients of the criminal justice system: Includes inmates, parolees, people under house arrest, registered sex offenders, child molesters, etc.
  9. Limited English or non-English speaking: Includes monolingual individuals as well as those with limited ability to speak, read, write or fully understand English.
  10. Homeless or shelter-dependent: Includes those marginally or temporarily housed or in shelters for abused women and children.
  11. 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', including religious, ethnic, sexual orientation, etc.
  12. Chemically dependent: Includes substance abusers and others who would experience withdrawal, sickness or other symptoms due to lack of access, such as methadone users.
  13. Children: Includes babies, infants, unattended minors, runaways and latchkey kids—anyone minor.

14. Single parents: Includes lone guardians, others with formal or informal childcare responsibilities—especially those with no other support system.
15. Poor: Includes extremely low-income, without resources, without political voice, limited access to services and limited ability to address their own needs.
16. Geographically isolated: No access to services or information, limited access to escape routes, or those for whom geography overwhelmingly determines lifestyles, habits, behaviors or options.
17. Persons distrusting of authority: Includes people without documentation, political dissidents, and others who will not avail themselves of government, American Red Cross or other traditional service providers for a variety of reasons.
18. 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 go to a shelter if it means separating from an animal.
19. Emergent special needs: Includes those developing special needs because of the disaster, such as spontaneous anxiety/stress disorders, or recurrence of a dormant health condition, etc.
20. 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 until glasses are replaced, etc.

A number of key issues related to special populations have been identified and incorporated into the eight Critical Capacity Modules.

# Pandemic Influenza

Preparedness & Response Plan

## Module I Health Authorities

Module I



**Public Health Department**  
Santa Clara Valley Health & Hospital System



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# Critical Capacity Module I

## Legal Authority

### INTRODUCTION

A critical capacity of the Santa Clara County Public Health Department (SCCPHD) is its ability to invoke its legal authority to implement actions to limit the spread of disease. During pandemic influenza, the SCCPHD may need to invoke such authority. While numerous federal, state and local statutes authorize public health actions to address pandemic influenza, cooperation with local law enforcement and the legal system will be critical.

At the federal level, the Public Health Service Act grants authority to the Secretary of Health and Human Services to make and enforce regulations “necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession.”<sup>2</sup> The role of the California State Department of Health Services (CDHS) in emergencies and disasters is described as follows: “DHS may take any necessary action to protect and preserve the public health...if the department determines that public health is menaced, it shall control and regulate the actions of the local health authorities.”<sup>3</sup>

Module I provides references and documentation regarding the legal authority of Public Health in emergencies such as pandemic influenza. It also includes the legal actions and procedures required for local preparation and response to pandemic influenza. The module is consistent with current California guidance on Health Officer authorities.<sup>4</sup>

### **Desired Outcomes**

1. Adherence to legal processes for issuance of Declaration of Emergency, Health Officer Orders and Directives, and other public health actions.
2. Adherence to legal requirements for workers compensation, licensing, and credentialing for Disaster Service Workers and Medical Disaster Volunteers.

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<sup>2</sup> 42.U.S.C.264

<sup>3</sup> CA HSC § 100180; Abbot, D. and McGurk. (1998), Authority and Responsibility of Local Officers in Emergencies and Disasters, California Department of Health Services.

<sup>4</sup> Health Officer Practice Guide for Communicable Disease Control (2005). California Department of Health Services. [www.sccphd.org](http://www.sccphd.org).

3. Effective and efficient identification and resolution of legal issues related to pandemic influenza response.

## HEALTH OFFICER AUTHORITY

### Description of Health Officer Authority

**Alert Period** (refer to page 5 for an explanation of the pandemic periods)

1. The public at large, affected individuals, special populations, health care providers (including the Santa Clara County Public Health Department), hospitals and health care systems, first responders, law enforcement agencies, schools, the business community and media will receive relevant information on the authority of the Health Officer. The development and distribution of these materials are described later in this section. The legal authorities for controlling the spread of disease are described in the Santa Clara County Public Health Department Emergency Operations Plan, Volume 2-Annex F- Isolation/Quarantine (I/Q Plan) pp.68 – 75, and are included in the appendices section of this plan (**Tool 1**).
2. Santa Clara County Counsel's Office and the Health Officer will draft or update legal orders, forms and templates relevant to Health Officer authorities. Model Health Officer Orders are included in the appendices section of this plan (**Tool 2**). Model Health Officer Orders include:
  - a. Health Officer Order for Isolation
  - b. Health Officer Order for Quarantine
  - c. Health Officer Order for Medical Evaluation
3. Health Officer and the Santa Clara Valley Health and Hospital System's Public Information Officer review and revise documents describing Public Health's legal authority relevant to pandemic flu. A Fact Sheet on Isolation & Quarantine Legal Authority is included in the appendices (**Tool 3**).
4. Health Officer, Communicable Disease Controller, Emergency Medical Services (EMS) Agency Director and other Public Health Department representatives distribute information regarding Legal Authority and sample Health Officer orders to relevant target groups through mailings, at meetings and at forums.

5. Public Health Department's Marketing and Communications Office will post the information on Legal Authority on the Public Health Department website.
6. The Public Health Department Emergency Operations Center (DEOC) Designated Legal Officer (the Legal Officer position is located in the DEOC/SEMS organizational structure in the Management Section) will establish a Legal Team. The Legal Team will advise the Health Officer and DEOC Director on implications of contemplated emergency actions and policies, and assist in preparing legal documents. The Legal Officer and Health Officer will conduct outreach to the court and other members of the legal community for input and coordination regarding legal issues that may arise during the pandemic period.

***Pandemic Period*** (refer to page 5 for an explanation of the pandemic periods)

1. Legal actions related to issuing an order for isolation or quarantine may include:
  - a. Health Officer detains patient(s) for isolation or quarantine under a verbal order.
  - b. Within 12 hours of detaining, Health Officer issues a written order for isolation or quarantine.
  - c. Patient may either consent or object to Health Officer order.
  - d. County holds informal hearing for any patient who objects to detention.
  - e. Health Officer may petition Superior Court for detention orders.
  - f. Alternatively, patients may seek a court order requiring their release from detention.
  - g. The court may hold a hearing and issue a court order either allowing further detention or requiring the patient's release.
  - h. The Health Officer's order may expire in accordance with the date on the order.
  - i. The Health Officer may rescind a prior order in writing.
2. Upon Activation of the DEOC, the DEOC Designated Legal Officer will activate the Legal Team as needed. The Legal Team will:
  - a. Provide legal advice to the Health Officer during preparation of Health Officer Orders and Health Alerts.

- b. Assist the Health Officer in preparing notifications and instructions to law enforcement.
  - c. Notify the Courts and other members of the legal community when Health Officer Orders that have been issued.
  - d. Assist in petitioning the courts for court orders should that be required.
3. Health Officer, DEOC Legal Officer, and Operational Area EOC/City EOC Operations Section, Law Enforcement Branch prepare daily law enforcement updates for law enforcement morning briefings. Instructions for law enforcement personnel will include information regarding use of personal protective equipment (PPE), enforcement of health officer orders, and location of detention facilities if these items are relevant. These instructions will be transmitted in the form of a Health Alert for Law Enforcement for Isolation and Quarantine (Tool 4). Law enforcement will be prepared to enforce Health Officer Orders and other related declarations, which may include:
- a. Assist in providing security at private and public hospitals.
  - b. Provide perimeter security at field treatment sites and alternate care facilities.
  - c. Detain individuals who refuse to comply with a Health Officer Order (it is a misdemeanor to violate a health officer's isolation/quarantine order under Health and Safety Code § 120275).
  - d. Assist at jails and correctional facilities.
  - e. Provide security (escort) for physicians, EMS personnel, ambulance personnel, other care providers or support personnel, as required.
  - f. Conduct area evacuations and secure evacuated areas.
  - g. Evacuate and secure public assembly venues when social distancing is required by Health Officer Order.
  - h. Close and secure roads and highways, restricting or limiting access to a geographic area as appropriate.
  - i. Assist with enforcement of school exclusion orders and school closures as appropriate.
  - j. Enforce curfews when they are required.



## **Social Distancing Measures**

Both the Health Officer and local law enforcement agencies have specific legal authority for controlling the movement of individuals (social distancing) to protect the health and safety of the public.

### ***Alert Period***

1. Inform local law enforcement agencies and fire services about legal authorities related to social distancing measures. The following measures are permitted to control the spread of disease and/or address a public health disaster:
  - a. Highway Closures
    - i. California Department of Transportation has the authority to restrict traffic or close state highway for the protection of the public.<sup>5</sup>
    - ii. California Highway Patrol, police departments, and the Office of the Sheriff may close highway if there is a threat to public health or safety caused by dangerous substances.<sup>6</sup>
  - b. Area Closures and/or Evacuations
    - i. Health Officer 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.”<sup>7</sup>
    - ii. Sheriff and Chief of Police have 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.<sup>8</sup>
  - c. 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.<sup>9</sup>
  - d. Public Assembly/Venues Closures

Health Officer 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

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<sup>5</sup> CA Street and Highways Code §124

<sup>6</sup> CA Vehicle Code § 2812

<sup>7</sup> CA Penal Code § 409.5

<sup>8</sup> CA Penal Code § 409.5

<sup>9</sup> CA Penal Code § 409.5

prevent the spread of disease” whenever an epidemic or any contagious or infectious disease is prevalent in the county.<sup>10</sup>

e. Curfews

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.<sup>11</sup>

f. Exclusion from School

Health Officer has the authority to exclude from schools certain persons, including students and teachers, who are under strict isolation/quarantine orders.<sup>12</sup>

### ***Pandemic Period***

1. The Operational Area EOC, Health Officer, and DEOC will coordinate activities to support social distancing measures directed from the Health Officer or DEOC, including:
  - a. Manage proclamations, declarations required for social distancing measures.
  - b. Coordinate law enforcement support for the implementation of social distancing measures.
  - c. Issue Emergency Alert System broadcasts regarding status of social distancing measures.

## **DUE PROCESS**

Substantive and procedural due process rights are implicated when the government seeks to deprive an individual of “life, liberty or property” interests within the meaning of the Due Process Clause of the Fifth and Fourteenth Amendment to the U.S. Constitution. Freedom from restraint of movement is a personal liberty interest that is protected by both the federal and the California

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<sup>10</sup> Santa Clara County Ordinance Code § A18-14

<sup>11</sup> CA Government Code § 8634

<sup>12</sup> CA HSC §120230

constitution.<sup>13</sup> Due process calls for protections as the particular situation demands. In most instances, the basic elements of procedural due process include:

1. Right to have adequate notice of the reason for the government's action
2. Right to be heard and to object to the government's action
3. Access to legal counsel
4. A final administrative decision that is subject to review in a court of law.

The written orders issued by the Health Officer include notice of the individual's due process rights per Santa Clara County Counsel.

### **Legal Proceedings**

#### ***Alert Period***

1. The DEOC Legal Team will meet to plan for and address legal issues associated with processing court petitions regarding isolation/quarantine matters.
2. The Legal Officer will conduct outreach to the court and other members of the legal community for input and coordination regarding legal issues that may arise during the pandemic period.

#### ***Pandemic Period***

1. Upon activation of the DEOC, the DEOC Designated Legal Officer will activate the Legal Team as needed. The Legal Team in conjunction with the EOC Operations Section will:
  - a. Coordinate requests from isolated or quarantined individuals, groups or others affected by Health Officer Orders for legal assistance.
  - b. Notify the courts of orders from the Health Officer that have been issued, and assist in coordination of individual or group due process proceedings.
  - c. Provide legal advice to the Health Officer during preparation of Health Officer Orders and Health Alerts.
  - d. Develop appropriate legal documentation for individuals or groups in detention or released from detention for the purpose of isolation or quarantine.

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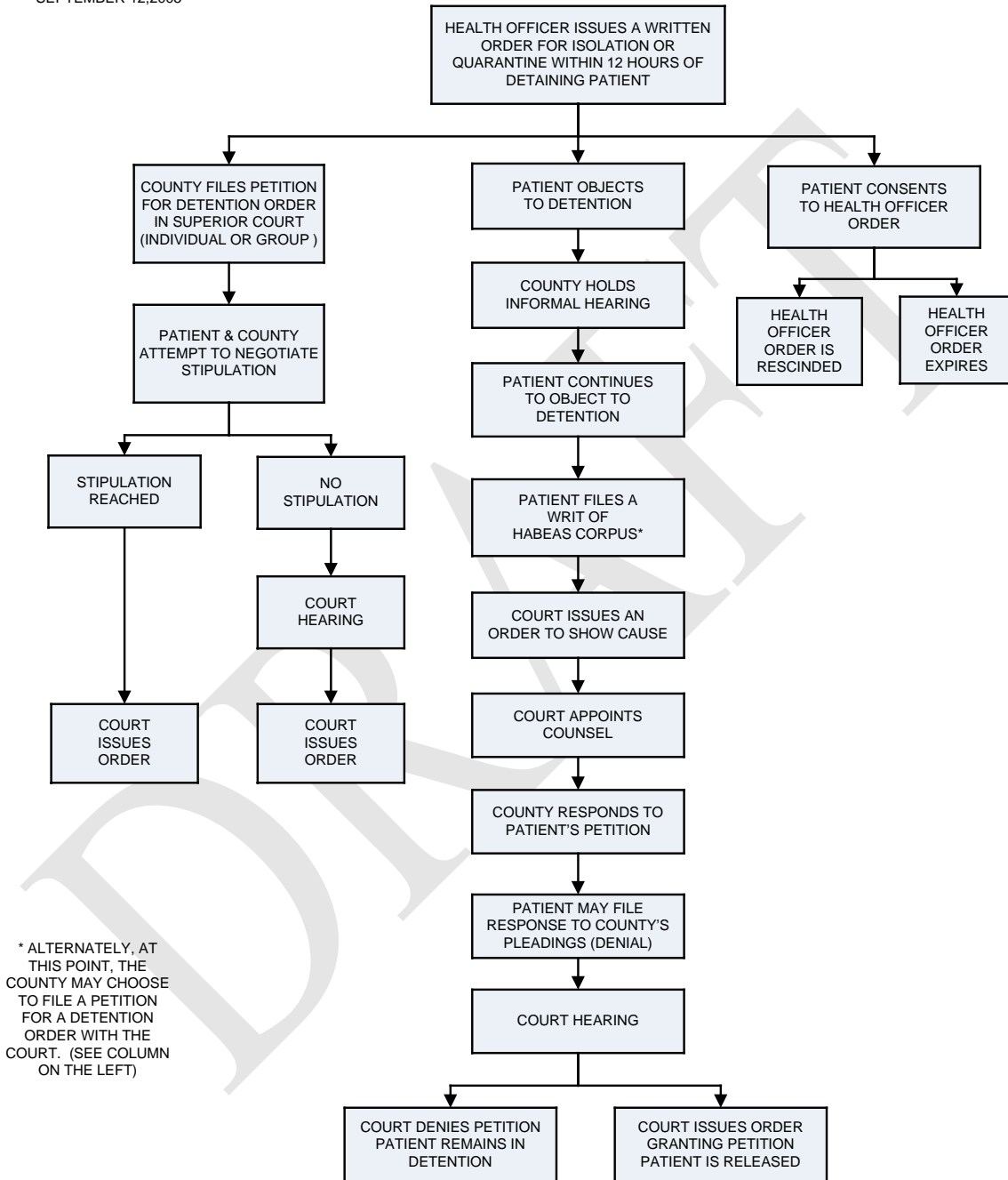
<sup>13</sup> In re Roger S (1977) 19 C. 3d 921,927

- e. Assist the Health Officer in preparing notifications and instructions to law enforcement for detention during isolation or quarantine operations.
  - f. Assist in petitioning the courts for a court order for isolation and/or quarantine as appropriate.
  - g. The Legal Officer and the Health Officer will meet with the judiciary and other members of the legal community to coordinate and implement the Public Health Department's response to legal issues that arise during the pandemic period.
2. Adhere to the legal actions for isolation and quarantine on the subsequent page.

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**Isolation/Quarantine Legal Actions**  
 Santa Clara County Public Health Department

SEPTEMBER 12, 2005



## WORKERS COMPENSATION LAWS/LIABILITY

### Worker Compensation Laws

California's Workers' Compensation laws are administered by the state Division of Workers' Compensation and the Workers' Compensation Appeals Board.<sup>14</sup> California Workers' Compensation provides a no-fault system which is designed to provide an injured worker with benefits, and to protect employers from civil liability for most injuries sustained within the course and scope of employment. It is based on the existence of an employer/employee relationship, and as a general rule it does not extend worker's compensation benefits to volunteers.

Workers' Compensation Benefits for Disaster Service Worker (DSW) Volunteers are administered by the Governor's Office of Emergency Services.<sup>15</sup> Insurance coverage for DSW volunteers is provided by the State Compensation Insurance Fund. A Disaster Service Worker Volunteer is any person registered with an accredited Disaster Council for the purpose of engaging in disaster service without pay or other consideration.<sup>16</sup> The term "DSW Volunteers" includes public employees performing disaster work that is outside the course and scope of their employment without pay, and also includes any person impressed into service during a state of war emergency, a state of emergency or a local emergency by a person having authority to command the aid of citizens in the execution of his or her duties.<sup>17</sup> All registered DSW Volunteers must take and subscribe to an oath before entering upon their duties. All governmental employees are already considered Disaster Service Workers and have taken the oath as a condition of their employment.<sup>18</sup> DSW Volunteers do not include any member registered as an active firefighting member of any regularly organized volunteer fire department.<sup>19</sup>

Volunteers who spontaneously come forward to assist ("convergent volunteers") can become registered as DSW Volunteers. To be covered for workers' compensation benefits, these DSW Volunteers must meet all of the requirements as indicated in the DSW Volunteer Program Regulations. Requirements include taking and subscribing to the oath before entering their duties.<sup>20</sup>

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<sup>14</sup> California's Workers' Compensation laws can be found in Labor Code sections 3200 - 6208.

<sup>15</sup> Labor Code § 4350

<sup>16</sup> Cal. Labor Code §3211.92(a)

<sup>17</sup> Cal. Labor Code §3211.92(b)

<sup>18</sup> Cal. Govt. Code §3100

<sup>19</sup> Cal. Labor Code §3211.92(d)

<sup>20</sup> DSWVP regulations are contained in California Code of Regulations Title 19, § 2570-§2573.3

DSW Volunteers may be eligible for workers' compensation benefits for "Occupational Illness" which is defined in the California Code of Regulations as "any abnormal condition or disorder caused by exposure to environmental factors associated with employment including chronic illnesses or disease which may be caused by inhalation, absorption, ingestion or direct contact."<sup>21</sup> This would include infectious diseases that are of particular concern in a pandemic flu outbreak.

To demonstrate eligibility for worker's compensation benefits, a DSW Volunteer must demonstrate that the occupational disease/illness or injury arose out of and in the course of the volunteer's activities as a Disaster Service Worker and must demonstrate that the activities involved peculiar or unusual risks of contracting the disease. As a practical matter, during a pandemic flu outbreak, it may be difficult to prove that the disease was contracted in the course of employment if many individuals in the general population are also susceptible.

### ***Alert Period***

1. Office of Disaster Medical Services (ODMS) coordinates with the Santa Clara Valley Health & Hospital System's Public Information Officer to obtain a State of California informational pamphlet on workers' compensation eligibility and benefits for Disaster Service Workers under the California Emergency Services Act entitled, "Information for the Disaster Service Worker; Helpful Information about Workers' Compensation Benefits" (Tool 5).
2. Office of Disaster Medical Services (ODMS) coordinates with the Employee Services Agency (ESA) to train selected Public Health staff assigned to the Public Health Department's Medical Volunteers for Disaster Response (MVDR) program on how to complete and process SCIF (State Compensation Insurance Fund) Form 3301, SCIF Form 3267, and other relevant documents required to process State compensation claims for DSW volunteers. A copy of Workers' Compensation Claim Procedures and related forms is found in the appendices (Tool 6).
3. ODMS distributes informational packet (described in #1 above) on workers' compensation eligibility and benefits to members of Public Health's Medical Volunteers for Disaster Response (MVDR).

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<sup>21</sup> California Code of Regulations, Title 8 section 1400

## ***Pandemic Period***

1. Public Health MVDR staff distribute information and FAQ on workers' compensation eligibility and benefits described in # 1 above to MVDR volunteers and other volunteers when they report for official activation at a disaster or emergency event.
2. Upon activation of the Public Health DEOC, Public Health MVDR staff will have available for DSWs Workers' Compensation Claim and Report of Occupational Injury or Illness forms necessary to be completed in the event of an injury or illness.

## **Liability and Immunity for Santa Clara 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.<sup>22</sup> In lawsuits alleging negligence on the part of a county public health department official, the county 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.<sup>23</sup>

County emergency preparedness and response volunteers may benefit from liability protection under three different sets of laws: the California Emergency Services Act,<sup>24</sup> California Good Samaritan laws and the Federal Volunteer Protection Act of 1997.<sup>25</sup> 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.<sup>26</sup>

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 health care professionals, who render services during a time of war, state or local emergency shall not be liable for any

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<sup>22</sup> California Government Code § 825

<sup>23</sup> California Government Code § 995

<sup>24</sup> California Government Code § 8550 et seq.

<sup>25</sup> 42 U.S.C. § 14501-14505

<sup>26</sup> 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.



injury sustained as a result of that service except where the injury is caused by a willful act or omission.<sup>27</sup>

The Emergency Services Act also affords immunity to non-licensed medical volunteers in emergency situations. It provides that Disaster Service Workers Volunteers and unregistered 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.<sup>28</sup>

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 civil damages under specified circumstances.<sup>29</sup> 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.”<sup>30</sup> 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.*<sup>31</sup>

The federal Volunteer Protection Act of 1997 limits the personal tort liability of volunteers at nonprofit organizations and government entities.<sup>32</sup> In order for immunity to apply, volunteers must act within the scope of their responsibilities at the time of the act or omission, and must be properly licensed or certified.<sup>33</sup>

The Volunteer Protection Act excludes tort protection to volunteers in the following six instances: 1) for willful or criminal misconduct, 2) gross negligence, 3) harm due to the use of a

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<sup>27</sup> California Government Code § 8659

<sup>28</sup> California Government Code § 8657

<sup>29</sup> California Business and Professions Code §§ 2395-2396

<sup>30</sup> California Business and Professions Code § 2727.5, 2861.5

<sup>31</sup> California Health and Safety Code § 1799.102

<sup>32</sup> 42 U.S.C. § 14501-14505

<sup>33</sup> 42 U.S.C. § 14503

motor vehicle, vessel or aircraft or any vehicle for which a license or insurance is required; 4) flagrant indifference to the rights or safety of the individual harmed; 5) sexual misconduct, hate crimes, crimes of violence and 6) conduct while under the use of alcohol or drugs.<sup>34</sup>

### ***Alert Period***

1. Office of Disaster Medical Services (ODMS) coordinates with the Santa Clara Valley Health & Hospital System's Public Information Officer and Santa Clara County Counsel's Office to review and distribute written information on issues of liability and immunity for volunteers in a disaster event (**Tool 7**).
2. ODMS distributes information on volunteer liability and immunity described in #1 to Public Health's Medical Volunteers for Disaster Response (MVDR) pre-registered volunteers.

### ***Pandemic Period***

1. ODMS distributes information and FAQ on volunteer liability and immunity to MVDR volunteers and other volunteers when they report for official activation at a disaster or emergency event.

### **Licensing, Credentialing and Privileging**

Licensing, credentialing and privileging comprise a regulatory framework designed to impose and maintain quality control in the provision of health care. This legal framework is applicable both prior to and during an emergency or disaster. Hospitals and other health care entities are required to adhere to credentialing requirements of the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO).

Public Health's MVDR, Red Cross and the Medical Reserve Corps issue identification cards. During an emergency or disaster additional documentation and authorization from the appropriate agencies may be required.

### ***Alert Period***

1. ODMS, through the Public Health's MVDR Program, develops protocols for rapidly verifying medical volunteer credentials of MVDR participants and other volunteers who wish to assist in disaster response. A protocol is included in the appendices (**Tool 8**).

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<sup>34</sup> 42 U.S.C. §14503(a)

2. ODMS develops procedures for administering the Loyalty Oath, required of Disaster Service Workers through Government Code § 3102, to MVDR volunteers and other volunteers who wish to assist in disaster response.
3. The County Office of Emergency Services (OES) develops a process to expand list of local authorities who can administer the Loyalty Oath to DSWs. A copy of the DSW Loyalty Oath is included in the appendices (**Tool 9**).

### ***Pandemic Period***

1. Public Health Department DEOC activates the MVDR if required, and monitors volunteer deployment.

### Module I – Health Authorities Tools

Tool 1 – Matrix of Laws Relevant to Isolation and Quarantine in Santa Clara County

Tool 2 – Model Health Officer Orders

Tool 3 – Fact Sheet on Isolation and Quarantine Legal Authority

Tool 4 – Health Alert Template for Law Enforcement for Isolation and Quarantine

Tool 5 – State of California pamphlet: “Information for the Disaster Worker; Helpful Information about Workers’ Compensation Benefits”

Tool 6 – Workers’ Compensation Claim Procedures and Forms SCIF 3301 and SCIF 3267 from State Compensation Insurance Fund

Tool 7 – Written Information on Liability and Immunity for Disaster Service Workers

Tool 8 – Protocol for Rapid Verification of Medical Volunteer Credentials

Tool 9 – Disaster Service Worker Loyalty Oath

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# Pandemic Influenza

Preparedness & Response Plan

## Module II Surveillance

Module II



**Public Health Department**  
Santa Clara Valley Health & Hospital System



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# Critical Capacity Module II

## Surveillance

### INTRODUCTION

Surveillance is a critical capacity required for the early identification and monitoring of disease. Pandemic influenza surveillance includes surveillance for influenza viruses (virologic surveillance) and surveillance for influenza-associated illnesses and deaths (disease surveillance). Locally, the goal of virological surveillance is to detect the introduction of a novel<sup>35</sup> or pandemic strain into Santa Clara County, and to detect any changes in the virus (including development of resistance to antivirals) that might necessitate a change in clinical or public health management. The goal of influenza disease surveillance is to serve as an early warning system to detect increases in influenza-like illnesses (ILI) in Santa Clara County, to monitor the pandemic's impact on health (e.g., by tracking hospitalizations and deaths), and to track trends in influenza disease activity and identify populations that are severely affected.

#### Desired Outcomes

1. Early identification of infection with a novel or pandemic influenza strain in Santa Clara County
2. Timely and accurate laboratory testing and confirmation of cases
3. Timely and accurate reporting and monitoring of suspected cases

### VIROLOGIC SURVEILLANCE

The Santa Clara County Public Health Laboratory (SCCPHL) is part of the national Laboratory Response Network (LRN) and as such participates in identifying new strains of influenza. During a normal influenza season, hospitals and providers located in Santa Clara County are encouraged to send specimens from patients with suspected influenza to SCCPHL for identification and characterization. For example, in the fall of 2004, a health care provider sent a

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<sup>35</sup> Novel influenza virus refers to a new strain of influenza virus for which there is little or no immunity in the human population.

specimen to the SCCPHL for influenza screening; workup of that specimen ultimately identified the first known case worldwide of infection with A/California – one of the three strains included in the 2005-2006 influenza vaccine.

Currently we are in phase 3 of the Alert period. The Public Health Department has sent an alert to all physicians requesting that respiratory specimens from patients meeting the case definition for suspect avian influenza H5N1 infection be sent directly to the SCCPHL (Tool 10). During phases 4 and 5 of the Alert period, CDC, the California Department of Health Services (CDHS) and SCCPHD will likely require that specimens from patients meeting certain case definitions be sent to the SCCPHL. It is expected that reporting regulations will change to require reporting of novel influenza strains such as H5N1.

CDC's Novel Influenza Case Report Form is available at <http://www.hhs.gov/pandemicflu/plan/sup1.html#app3>. The California Avian Influenza Form is included in the appendices (Tool 11).

**Alert Period** (refer to page 5 for an explanation of the pandemic periods)

As we are currently in the Alert period, phase 3, the SCCPHL has developed:

1. Adequate staffing and stockpiling of reagents to screen up to 40 specimens per day, and confirm 32 specimens per day. If all six microbiologists are well and working 12 hours shifts (12 hrs on /12 hours off), three teams of two microbiologists each could screen 40 specimens for influenza A or B on the Lightcycler, and confirm (hemagglutinin typing for H1, H3 or H5) 32 specimens per day on the Smartcycler. The laboratory could maintain this workload and staffing structure for approximately 2 to 3 weeks. To accomplish this, the lab would drastically modify regular workload, by prioritizing the workload and sending non-critical tests to another PH laboratory. Note that the SCCPHL has a Surge Capacity Protocol in place for Select Agents which details how to prioritize specimens.
2. Guidance to hospital and commercial microbiology laboratories in Santa Clara County regarding safe specimen collection, packaging and submittal. We have advised microbiology laboratories that they should NOT perform viral culture if patient is suspected to be infected with a novel or emergent influenza strain.
3. Capacity to perform RT-PCR for influenza A and B, and can identify H1, H3 and H5. All specimens with suspected H5N1 or other novel strains will be forwarded to the state Viral and Rickettsial Diseases Laboratory (VRDL) for culture and further typing.



During Pandemic Alert phases 4 and 5, the lab capacity already developed will be maintained, with the following modifications as needed:

1. If six microbiologists are not available because of illness, staffing can be scaled back to teams of one microbiologist each.
2. If the demand for screening exceeds this capacity, the SCCPHD will develop an algorithm for prioritizing clinical specimens based on the current situation. It is not expected that the State VRDL will be able to accommodate our overflow.

The SCCPHD Disease Prevention and Control Program has sent guidance to health care providers practicing in Santa Clara County with instructions for when to suspect infection with a novel influenza strain (such as H5N1), how to collect appropriate specimens, and how to send them directly to the SCCPHL. See Public Health Laboratory Informational No.: 2005-4 in the appendices (**Tool 12**). This guidance will be updated as needed if we progress to Phase 4 or 5. Some influenza viruses such as H5N1 are classified as select agents and may, under some circumstances, require special transportation which can be arranged through use of police, sheriff or Highway Patrol. Additional guidance on biosafety precautions for laboratories is available from the Santa Clara County Public Health Laboratory (SCCPHL) at [www.sccphd.org](http://www.sccphd.org). The SCCPHD and the SCCPHL are not directly involved in virologic surveillance for infection in wild or domestic birds or other animals. However, the California Animal Health and Food Safety Lab (CAHFS), the veterinary lab system statewide under the California Department of Food and Agriculture, does perform testing on domestic birds. Currently, the testing of wild birds is sparse, with the exception of a researcher at the UC Davis Wildlife Health Center project who is testing some wild birds. A national program, coordinated by the U.S. Department of Interior and U.S. Department of Agriculture, has been recently unveiled, which will provide monitoring of migratory birds in the U.S., and testing populations of birds for avian influenza.

### ***Pandemic Period***

During the very initial stages of a pandemic activity in Santa Clara County, the SCCPHD will encourage providers to test all cases of suspected influenza in hospitalized patients to accurately document the arrival of the pandemic strain in Santa Clara County and to document any antiviral resistance. After this is accomplished, clinical case definitions can be used and there will be no need for laboratory confirmation. Short-term increases in virologic surveillance via testing of hospitalized patients will need to occur at the beginning of any new waves of disease during the pandemic to track any evolution or changes in the virus. After establishing

the predominant strain and antiviral susceptibilities during each wave, virologic testing can again be scaled back. Instructions to healthcare providers regarding when and when not to submit specimens to the SCCPHL will be communicated via the Physician fax Alert system, as well as posted to the Department's website. Instructions to laboratories will be communicated via the faxed "Community Updates" from the Public Health Laboratory.

While ongoing testing of patients for H5N1 will continue throughout the pandemic, it is expected that at some point commercial laboratories will have a role in testing. The CDC and CDHS will have primary responsibility for determining when this happens, and the SCCPHL will have a role in communicating the change to healthcare providers and facilities.

## **DISEASE REPORTING AND SURVEILLANCE**

Influenza infection is not a reportable condition in California or Santa Clara County. Therefore, tracking of influenza morbidity and mortality is done with several complementary sentinel surveillance systems. Recently, California has asked for the voluntary reporting of severe pediatric influenza infections. We will use these existing influenza surveillance systems during the Alert period, and may require certain types of new reporting during the Pandemic period.

### ***Alert Period***

We may detect the arrival of a pandemic flu strain in Santa Clara County or in the United States during phase 3, 4 or 5, or not at all. The goals of surveillance during the Alert period are to:

1. Detect suspected cases with infection with a novel influenza virus, and ensure they are rapidly ruled out or confirmed.
2. Monitor overall influenza-like-illness activity among outpatients and hospitalized patients.
3. Monitor influenza deaths.

Disease surveillance includes:

1. Enhanced surveillance by individual health care providers
  - a. As information becomes available from the international community about an influenza strain with pandemic potential (for example, H5N1), we will conduct enhanced surveillance for that particular strain. This will be done by sending provider alerts to all physicians in the county detailing the clinical presentation

and exposure history of interest. For example, a Health Alert regarding Avian Influenza H5N1 already has been sent to health care providers.

- b. Additional alerts will be created if another influenza strain is determined to have pandemic potential. Physicians will be asked to report to us if they evaluate a patient with suspected infection with any novel influenza. They will be asked to send a clinical specimen to the SCCPHL as well. The CDC Novel Strain Case Report Form would be used for this purpose (<http://www.hhs.gov/pandemicflu/plan/sup1.html#app3>).
2. Surveillance for influenza-like-illness in outpatients
- a. Influenza-like-illness (ILI) is generally defined as temperature greater than 100.4 and at least one upper respiratory symptom (cough, rhinorrhea, or pharyngitis). Influenza-like-illness is most commonly seen in the outpatient setting, and rarely confirmed with laboratory tests. The above case definition is non-specific and captures illnesses due to a variety of respiratory viruses that commonly circulate in the winter. The goal of surveillance for ILI in outpatients is to track general trends in the scope and magnitude of ILI. By applying more specific case definitions to outpatients presenting with ILI (see #1 above), we can also focus laboratory testing on those patients most likely to be presenting with infection with a novel virus.
  - b. To track the overall scope and magnitude of influenza morbidity, SCCPHD will use existing surveillance systems operating in the county:
    - i. We track ILI among patients presenting to the triage nurse at all 11 emergency departments in the county. This manual "Tally Sheet" system will be supplemented by ESSENCE in mid-2006. ESSENCE is a syndromic surveillance system which automatically extracts and analyzes ICD9 and chief complaint data from emergency departments and other sources.
    - ii. We access BioSense, a federal syndromic surveillance program which includes ICD9-coded outpatient visits at DOD ambulatory care centers and Department of Veterans' affairs outpatient clinics. We access the BioSense data which corresponds to our metropolitan area.

- iii. The state of California has been collaborating with Northern and Southern California Kaisers to provide a variety of influenza-related data during the October – April influenza season. We have compared the surveillance data from northern California Kaiser with our Tally Sheet data and found the correlation to be extremely high. In other words, the Kaiser influenza surveillance system accurately tracks the onset, scope and magnitude of our annual epidemics.

### 3. Monitoring influenza hospitalizations

- a. Influenza hospitalizations capture severe disease from influenza, including the subset of infected persons who develop complications. Surveillance of this group allows us to track whether the particular influenza virus most adversely affects the groups traditionally considered at risk for severe complications – those over 65 years of age and persons with underlying cardiac, pulmonary, immunologic or metabolic conditions – or whether it may be a novel virus affecting other, traditionally “low risk” groups (e.g. young healthy adults). A virus which causes severe illness in traditionally “low risk” groups is more worrisome, and the need for virologic identification is greater. The following surveillance systems track influenza hospitalizations:

- i. Pediatric and Neonatal Intensive Care Units in our county voluntarily report severe pediatric influenza and deaths to us during the October – April influenza season.
- ii. The Kaiser influenza surveillance system tracks hospitalizations due to influenza-like-illnesses by tracking admission diagnosis for a subset of ICD9 codes that act as a proxy for influenza.

- b. As we move towards phases 4 (limited human to human transmission but spread is highly localized, and probably not in the United States) and 5 (larger clusters of human-to-human spread, but still localized and probably not in the United States) of a pandemic alert, the SCCPHD will consider additional components of hospital-based surveillance including:

- i. Adding laboratory-confirmed influenza-associated hospitalizations to the list of notifiable diseases, and implementing case-level reporting, using

the Santa Clara County Pandemic Influenza Case Report Form (Tool 13).

- ii. Developing a protocol for active hospitalization surveillance, including specimen collection and virologic testing from a subset of hospitalized patients in Santa Clara County.

Implementation of case-level reporting and active hospitalization surveillance will depend in large part on where in the world the localized spread has been documented.

#### 1. Influenza deaths

- a. There are approximately 200 influenza-associated deaths in Santa Clara County during a normal influenza season. Most of these are captured by our weekly review and count of pneumonia and influenza deaths via review of death certificates. An increase in these counts would serve as both a warning that a new strain might be circulating, and also a means by which to measure the virulence of that new strain. In addition, pediatric influenza-associated deaths are reportable to us as described above.
- b. Beginning in January 2006, the Vital Statistics unit began piloting the Electronic Death Registration System (EDRS). Electronic reporting of Death Certificates will expedite the process and allow the SCCPHD to track deaths more quickly.

#### 2. Surveillance at major port of entry: Mineta San Jose International Airport (SJC)

- a. SCCPHD may initiate disease surveillance at SJC, the primary international port of entry, during phases 4 and 5 of a pandemic alert, when there has been an increase in documented human-to-human transmission. During phase 3 when limited to no human-to-human transmission has been documented, airport surveillance would be so non-specific as to not be useful. The following actions may be considered:
  - i. SCCPHD works with SJC officials and San Francisco Quarantine Officers to ensure there are protocols in place for meeting flights with a reported ill passenger.
  - ii. SCCPHD establishes notification procedures and communication links between airlines, airport management, EMS, and the Health Officer.

- iii. SCCPHD establishes protocols for separating the ill traveler from other passengers during the initial medical assessment.

### 3. Reporting

- a. If a suspected case is identified during any phase of the alert period, SCCPHD will report the case immediately to the CDHS via the Duty Officer of the Day, or whomever CDHS designates, and CDHS will report to the CDC via the CDC Emergency Response Hotline (770-488-7100).

By enhancing surveillance for novel strains through physician alerting and education, and by tracking the overall scope and magnitude of influenza morbidity and mortality through existing influenza surveillance systems, SCCPHD will be able to detect the impact of a pandemic strain should it emerge and spread in Santa Clara County during the Alert period. The SCCPHD's prevailing assumption, however, is that we will not see clusters of human infection in Santa Clara County until very late in Phase 5 (larger clusters of human-to-human infection but spread is highly localized; virus may not yet be fully transmissible) or until the Pandemic period.

#### ***Pandemic Period***

If no cases of pandemic influenza have been identified in Santa Clara County when the World Health Organization (WHO) declares a worldwide pandemic, SCCPHD will continue coordinating vigorous enhanced surveillance by individual health care providers and aggressive testing of suspect cases to identify infections with the pandemic strain and to control its spread. The goal during the earliest part of a pandemic is to collect sufficient data to inform public health actions (i.e., change hospital admission criteria, initiate social distancing measures, refine priority groups for antivirals or vaccines, etc.). For these decisions, we would need case-level data. Once, however, a pandemic strain has been identified in Santa Clara County and widespread person-to-person transmission is occurring, the goals of surveillance will change. The goals once a pandemic is underway will be to:

1. Monitor the pandemic's impact on the health care system and the community at large.
2. Identify populations severely affected by influenza that might require extra resources or additional public health interventions.

As the pandemic unfolds, the methods of surveillance and reporting will change. Individual case level reporting will be maintained as long as resources allow (**Tool 13**), and will subsequently transition to batch reporting by hospitals and other larger care providers, using the Pandemic

Influenza Batch Case Report Form (Tool 14). SCCPHD may also institute active surveillance at selected sites, for example, working with school nurses to determine school absenteeism due to influenza-like-illness.

The DEOC will be activated, and the SCCPHD Crisis Disease Control Team (see Public Health Department Emergency Operations Plan, Volume 2, Disease Surveillance and Disease Outbreak and Investigation) will lead the surveillance effort. Both centralized teams, the Epidemiology and Data Management team and the Active Surveillance team, will be activated to collect, analyze and report pandemic surveillance data.

1. Influenza-like-illness in outpatients

- a. Unless a pandemic unfolds prior to June 2006, ESSENCE will be the primary means of tracking the number of patients with ILI seeking care through hospital emergency rooms, and the areas of the county from which they come. The primary advantage of this system during a pandemic is that it is completely automated so will have minimal to no impact on strained staffing resources at hospitals and the public health department. The sentinel provider network is unlikely to remain viable as a resource for tracking ILI in outpatients as the few providers who report may be ill or overwhelmed. Depending on resources, additional surveillance systems may be implemented as the pandemic unfolds to help gauge the impact on the health care system and the community:
  - i. SCCPHD may require the largest providers of outpatient care (Kaiser, PAMF, Camino Medical Group, San Jose Medical Group, VMC ambulatory care) to do weekly or biweekly batch reporting of patients seen with ILI. Report only numbers of patients with ILI by age group.
  - ii. SCCPHD may require weekly or biweekly batch reporting of patients presenting for care at Influenza Care Centers.
  - iii. SCCPHD may require batch reporting of ILI from the major triage points, including call centers.
  - iv. SCCPHD may call selected school nurses weekly or biweekly for reports of number and percentage absent due to influenza-like-illness.

The disadvantage of batch reporting is that it does not provide unduplicated counts. It can, however, provide overall scope and severity of epidemic.

## 2. Influenza Hospitalizations

The Kaiser surveillance system will capture trends in influenza hospitalizations. In addition, we may use the countywide EM Systems to track Emergency Room volume, bed types and availability. SCCPHD may also institute individual case reporting or batch reporting of influenza hospitalizations (**Tool 13; Tool 14**). Depending on resources, SCCPHD may conduct periodic studies at select hospitals to define the populations (demographics, risk factors, outcomes) infected with influenza or at greatest risk of complications.

## 3. Influenza Deaths

It will be necessary to track influenza deaths in both hospitalized and non-hospitalized patients to calculate the case-fatality rate caused by the virus and to monitor morgue capacity and need for additional resources. It is likely that healthcare providers will be required to report influenza deaths among hospitalized patients. SCCPHD may also request influenza death reports from Influenza Care Centers. We will also continue to review death certificates for influenza-associated illnesses, which will act as a check on healthcare provider reported deaths.

## 4. Reporting and Data Collection

- a. SCCPHD will generate data reports for its own use, including decisions on when to implement more austere triage measures at area hospitals, when to collect viral isolates from patients, when to implement social distancing strategies and which ones, and potentially decisions about changes in vaccine or antiviral priority groups. SCCPHD anticipates that CDHS and CDC will also require some reporting to them, but we have not received clear instructions on these requirements to date.

### Module II – Surveillance Tools

Tool 10 – Santa Clara County Physician Alert Case Definition Avian Influenza

Tool 11 – California Avian Influenza Case Report Form

Tool 12– Public Health Laboratory Informational No.: 2005-4: Instructions for when to suspect infection with a novel influenza strain (such as H5N1), how to collect appropriate specimens, and how to send them directly to the SCCPHL.



Tool 13– Santa Clara County Pandemic Influenza Case Report Form

Tool 14 – Santa Clara County Pandemic Influenza Batch Case Report Form

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# Pandemic Influenza

Preparedness & Response Plan

## Module III Healthcare



**Public Health Department**  
Santa Clara Valley Health & Hospital System



Module III

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# Critical Capacity Module III

## Healthcare Systems

### INTRODUCTION

The ability of our healthcare system to develop a coordinated health care strategy to effectively prepare and provide for pandemic influenza patients is a critical capacity. Currently the H5N1 strain of avian influenza has been recognized by the World Health Organization to be at a threat level consistent with the **Alert period**. Because of the nature of influenza viruses and their natural ability to mutate and become more or less of a threat to humans, there remains uncertainty as to when and how a pandemic will evolve, and its effect on local conditions that will influence decision-making within the healthcare system. Healthcare facilities must be prepared for the rapid pace and dynamic characteristics of pandemic influenza.

**All hospitals should be equipped to care for:**

- 1. A limited number of patients infected with pandemic influenza virus, or other novel strain of influenza, as part of normal operations**
- 2. An overwhelming increase in the number of patients in the event of escalating transmission of pandemic influenza.**

Module III of the Pandemic Influenza Plan provides healthcare medical partners with recommendations for developing plans to respond to influenza pandemic. The focus is on institutional planning in coordination with the community during the alert period and activation of institutional pandemic influenza response plans during the pandemic period.

The module is divided into three sections that provide guidelines for

1. Hospitals (begins on page 53).
2. Non-hospital settings (begins on page 84).
3. Alternative care sites, referred to herein as Influenza Care Centers (begins on page 85).

The primary partners responsible for this module include the Santa Clara County Public Health Department (SCCPHD) and the local healthcare system, including hospitals, clinics and private

providers, among others. It is the responsibility of healthcare facilities to: identify and isolate all potential patients with pandemic influenza; implement infection control practices to prevent influenza transmission; provide medical treatment to patients; and ensure rapid and frequent communication within the healthcare facility, between healthcare facilities, and with the SCCPHD.

The guidelines included in Module III are intended to be synergistic with other pandemic influenza planning efforts, including state and federal preparedness plans. Hospital planning for pandemic influenza preparedness should address internal and external collaboration and coordination with the healthcare community. An internal, multidisciplinary planning committee should be appointed, by each healthcare provider, to address each of the guidelines below to ensure that both a coordinated response and the specific needs of the individual hospital are included in the hospital pandemic influenza plan. Santa Clara County hospitals are expected to use the Hospital Emergency Incident Command System (HEICS) in their response to pandemic influenza.

The guidelines critical to acute care hospitals include:

1. Decision-making structures for response
2. Hospital surveillance
3. Infection control
4. Hospital risk communications
5. Education and training
6. Patient triage
7. Clinical guidelines
8. Use, administration and of vaccines and antiviral drugs
9. Surge capacity
10. Mortuary issues
11. Security/facility access
12. Occupational health
13. Recovery of operations

## **Desired Outcomes**

The desired outcomes of the SCCPHD pandemic influenza program for healthcare planning, which are compatible with those of California Department of Health Services (CDHS), are:

1. Maintenance, to the greatest extent possible, of the provision of healthcare services to meet the needs of Santa Clara County during an influenza pandemic.
2. Maximization of Santa Clara County's ability to respond to the healthcare needs of influenza pandemic through effective planning at the local level and to collaborate with healthcare providers to address medical surge capacity and capability demands of influenza pandemic.

## **Planning Assumptions**

1. The number of ill people requiring outpatient medical care and hospitalization will overwhelm the local health care system.
2. Hospitals will be expected to maximize their medical surge capacity and capability. However, when hospital capacity is exceeded, Influenza Care Centers (ICCs) will be needed for patients who can safely be managed outside of the acute care setting; hospitals will be reserved for patients needing the most sophisticated care.
3. The increased healthcare demands associated with pandemic influenza cannot be managed by healthcare facilities alone. An effective pandemic response must include cooperative strategies that use a variety of healthcare entities including hospitals, clinics, long-term care facilities, private practice physicians, and home health care providers.
4. Hospitals and other healthcare entities will likely experience staffing shortages throughout the pandemic period and into the subsequent recovery period. Under specific emergency conditions, volunteers, retired healthcare professionals, and trained unlicensed personnel may be used to provide patient care in a variety of healthcare settings.
5. Current resources for mass fatality care at all levels, including healthcare facilities, the county morgue and mortuaries, may be inadequate to meet the challenges posed by pandemic influenza.
6. To maximize healthcare resources and achieve the optimal benefit for the most people, traditional standards of care may need to be altered. "sufficiency of care," medical care

that may not be of the same quality as that delivered under non-emergency conditions but that is sufficient for need, may be the standard of care during an influenza pandemic.

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# HOSPITAL-BASED CARE

## Decision-making Structures for Response

### *Alert Period*

Each hospital in SCC should:

1. Convene an internal pandemic influenza planning task force to develop/revise a pandemic preparedness plan for the facility that includes:
  - a. Use of the Hospital Emergency Incident Command System (HEICS) for a sustained continuity of hospital operations and patient care services:
    - i. Specific pandemic influenza planning strategies that incorporate current local, state and federal guidance
    - ii. Triggers for activating the hospital's internal pandemic emergency plan
    - iii. Assignment of authority and responsibility for aspects of the pandemic plan and response within the facility
    - iv. Patient triage systems
2. Review and revise high patient census protocols specifically to prepare for the intensity and duration of patient influx during a pandemic influenza, including isolation capacity.
3. Develop plans for use of overflow space to triage, transfer/discharge, and treat patients, including use of suspended beds, converting outpatient space to inpatient, using non-patient areas, and obtaining permission from CDHS Licensing and Certification Division to use these spaces in an emergency.
4. Identify critical staff roles including healthcare workers, housekeepers, dietary, laundry, plant operations, security, chaplains, mental health staff and management, and develop plans to cover these critical roles.
5. Develop standardized pandemic physician orders.
6. Develop streamlined nursing notes/patient care records.
7. Develop work force preservation protocols to minimize absenteeism, which may include:
  - a. Establishing a staff hotline with current information
  - b. Providing sick-care services for children of hospital staff

- c. Developing rosters of staff teams to allow for rotation and rest over the duration of the pandemic.
8. Develop and conduct staff training on the facility's pandemic response plan.
9. Prepare to manage volunteer personnel, including:
  - a. Granting emergency privileges
  - b. Establishing competency and monitoring staff performance for newly recruited and/or volunteer personnel
  - c. Assigning temporary personnel
  - d. Using retired and volunteer healthcare workers for some patient care roles
  - e. Using community volunteers for non-clinical roles such as transporting specimens, registration and supply handling
  - f. Training volunteers
  - g. Develop just-in-time training and orientation modules for temporary and volunteer staff
10. Inventory critical supplies needed for treatment of patients with pandemic influenza, including personal protective equipment (PPE):
  - a. Determine usage levels and stockpile critical supplies.
  - b. Develop MOUs with vendors for procuring additional supplies including:
    - i. Masks
    - ii. Gloves
    - iii. Gowns
    - iv. Beds/cots
    - v. Intravenous supplies
    - vi. Portable high efficiency particulate air filters
    - vii. Ventilators
11. Test systems for procuring and storing additional supplies and address rotational issues.

12. Repair durable equipment not currently in full working order on an expedited basis and shorten routine maintenance cycle.
13. Ensure availability of recommended laboratory processing, testing and reporting of results to the ordering physician and infection control team.
14. Review current disaster plan for managing remains and temporary morgue overflow.
15. Modify plans to address potential need to manage contaminated remains for days.
16. Consider MOUs for surge mortuary supplies (e.g., body bags, refrigerator trucks).
17. Convene the infection control committee to review/revise infection control policies and procedures relevant to the pandemic response, including:
  - a. Containment strategies
  - b. Respiratory hygiene
  - c. Isolation
  - d. Cohorting
  - e. Workforce issues such as training, personal protective equipment (PPE) and guidelines for “fitness for duty” status
  - f. Cleaning equipment/environment
18. Adopt aggressive “respiratory hygiene” programs in all patient and visitor waiting areas to include signs about respiratory etiquette, hand cleaning supplies, tissues, masks, and waste receptacles; require all coughing patients to don a mask.
19. Inventory respiratory isolation capacity and integrity of negative pressure isolation room systems.
20. Develop strategies for expanding respiratory isolation capacity and cohorting infectious patients.
21. Review current vaccination program for pneumonia and influenza to assure that employees have access to vaccinations.
22. Develop procedures to identify high-risk patients for vaccine/antiviral distribution, according to SCCPHD guidelines.
23. Identify critical hospital personnel for vaccination and antiviral medication; collaborate with SCCPHD on allocation plan for vaccine and antivirals.

24. Adopt any treatment guidelines distributed by CDC, CDHS, and SCCPHD.
25. Develop standard operating procedures to ensure rapid and consistent application of medical treatment guidelines (Reference Module V - Clinical Management).
26. Train medical staff on treatment priorities, allocating limited resources, and “sufficiency of care” standard.
27. Drill staff on Pandemic Response Plan.
28. Develop systems for timely distribution of updated guidance to clinical staff, and revise policies and standard operating procedures accordingly.

### ***Pandemic Period***

Hospitals should implement their Pandemic Response Plan upon either the notification of SCCPHD, or the awareness of a sudden surge of influenza patients during the initial phases of the pandemic within the United States. Coordination between levels of government, in California, will be accomplished through utilization of SEMS, as defined under the California Office of Emergency Services, State Emergency Plan (May 1998).

### **Hospital Surveillance**

Refer to **Module II—Surveillance** for information on surveillance for influenza-like illness in outpatients.

Pandemic influenza surveillance includes surveillance for influenza viruses (virologic surveillance) and surveillance for influenza-associated illnesses and deaths (disease surveillance). Locally, the goal of virologic surveillance is to detect the introduction of a novel or pandemic strain into Santa Clara County, and to detect any changes in the virus (including development of resistance to antivirals) that might necessitate a change in clinical or public health management. The goal of influenza disease surveillance is to serve as an early warning system to detect increases in influenza-like-illnesses (ILI) in Santa Clara County, to monitor the pandemic's impact on health (e.g., by tracking hospitalizations and deaths), and to track trends in influenza disease activity and identify populations that are severely affected.

Influenza-like-illness (ILI) is generally defined as temperature greater than 100.4 and at least one upper respiratory symptom (cough, rhinorrhea, or pharyngitis).

## ***Alert Period***

Hospitals play an important role in the surveillance process by assuring that requested data are collected and reported on a consistent and timely basis to SCCPHD. During the alert period, the purpose of surveillance is to detect and confirm cases of novel or pandemic influenza.

1. SCCPHD uses the following mechanisms for surveillance of:
  - a. Emergency department visits
    - i. Syndromal Surveillance - Eleven hospital emergency departments in Santa Clara County participate in a manual "Tally Sheet" of chief complaint data collection collected from patients presenting to the emergency department. This information is forwarded daily to the SCCPHD where in turn the data is evaluated for unusual spikes in specific patient symptoms related to ILI and to potential high-risk bioterrorism diseases.
    - ii. ESSENCE is a syndromic surveillance system, which automatically extracts and analyzes ICD9 and chief complaint data from emergency departments and other sources. ESSENCE is on track to replace the manual "Tally Sheet" in mid-2006.
  - b. Hospital admissions
    - i. Pediatric and Neonatal Intensive Care Units in SCC voluntarily report severe pediatric influenza and deaths to SCCPHD during the October – April influenza season.
    - ii. The Kaiser influenza surveillance system tracks hospitalizations due to ILI by tracking admission diagnosis for a subset of ICD9 codes that act as a proxy for influenza.
  - c. Discharge of suspected or laboratory-confirmed pandemic influenza patients
    - i. During phases 4 and 5 of the Alert period, SCCPHD will consider adding laboratory-confirmed influenza-associated hospitalizations to the list of reportable diseases.

- ii. Developing a protocol for active hospitalization surveillance, including specimen collection and virologic testing from a subset of hospitalized patients in Santa Clara County.
2. To ensure the quality and safety of specimens, SCC hospitals must utilize the most current guidelines for hospital laboratory testing and submission of specimens to Santa Clara County Public Health Laboratory. Refer to **Module II – Surveillance** for further explanation.
  - a. Santa Clara County Public Health Laboratory (SCCPHL) is part of the national Laboratory Response Network (LRN) and as such participates in identifying new strains of influenza.
  - b. Currently in phase 3 of a pandemic alert, SCCPHD has sent a physician alert to all physicians requesting that respiratory specimens from patients meeting the case definition for suspect avian influenza H5N1 infection be sent directly to the SCCPHL. (Tool 10)
  - c. During phases 4 and 5 of a pandemic alert, CDC, the California Department of Health Services (CDHS) and SCCPHD may require that specimens from patients meeting certain case definitions be sent to the SCCPHL. **Refer to Module II – Surveillance.**
  - d. Hospital laboratories should NOT conduct laboratory testing for new strains of influenza. Attempts to isolate virus from these cases must only be conducted in a Biosafety Level 3 (BSL 3) enhanced laboratory (the Santa Clara County Public Health Laboratory or the State Viral and Rickettsial Disease Laboratory) (Tool 12).
3. SCC hospitals and clinics must ensure that they have current written procedures and criteria in place to facilitate specimen transport to SCCPHL.
4. SCC hospitals and clinics need to assure that they have a mechanism for monitoring employee absenteeism for increases that might indicate early cases of pandemic influenza. Such information should be shared with the local health officer, and laboratory staff on all shifts should be trained in these procedures.

## ***Pandemic Period***

If no cases of pandemic influenza have been identified in Santa Clara County when the World Health Organization declares a worldwide pandemic, vigorous enhanced surveillance by individual health care providers and aggressive testing of suspect cases to identify infections with the pandemic strain and control its spread must occur. Once a pandemic strain has been identified in SCC and widespread person-to-person transmission is occurring, the goals of surveillance will change.

The surveillance goals during a pandemic will be to:

1. Monitor the pandemic's impact on the healthcare system and the community at large.
2. Identify populations severely affected by influenza that might require extra resources or additional public health interventions.

The SCCPHD Department Emergency Operations Center (DEOC) will be activated and hospitals will be expected to communicate and provide status reports through the EMS systems messaging. Hospitals should consider early activation of HEICS to manage the pandemic's impact on their organization. SCC hospitals need to notify the DEOC when their HEIC is activated. Two types of pandemic influenza reporting may occur, case-level reporting *and* batch reporting, with batch reporting more likely as transmission increases and the pandemic spreads. See **Module II – Surveillance** for complete instructions on reporting.

## **Infection Control**

The specific characteristics of a novel pandemic influenza virus will remain unknown until the pandemic occurs. Therefore, SCCPHD, in agreement with CDHS, recommends that healthcare institutions include the use of airborne precautions for patients with pandemic influenza along with droplet and contact precautions. Once additional information becomes available regarding the novel virus, less stringent control measures may be found to be adequate. At that time, updated guidance will be provided by SCCPHD.

The goals of infection control measures in the healthcare setting are to:

1. Limit transmission from infected patients to non-infected healthcare staff.
2. Limit transmission from infected patients to non-infected patients.

3. Provide infection control guidance to healthcare facilities on managing pandemic influenza outbreaks.
4. Prevent spread of pandemic influenza in healthcare settings.

The following infection control principles apply in any setting where persons with pandemic influenza might seek and receive healthcare services (e.g., hospitals, emergency departments, outpatient facilities).

### ***Alert Period***

Healthcare facilities need to be adequately prepared to implement engineering or administrative controls, as well as PPE, to prevent all possible modes of transmission including airborne. This level of preparedness includes the following:

1. Have a respirator program in place, including appropriate fit-testing.
2. Pre-designate which employees may be required to wear respiratory protection.
3. Ensure that potential respirator-wearing employees have been medically cleared, have a suitable respirator model through individual fit-testing, and have been trained in respirator use.
4. Have adequate supplies of respirators and other PPE on-site.
5. Have plans in place to acquire additional equipment on short notice.
6. Educate healthcare workers on the importance of containing respiratory secretions to prevent the transmission of influenza.
7. Complete planning for actions described in Pandemic Period.

### ***Pandemic Period***

1. Detect persons entering the facility who may have pandemic influenza:
  - a. Post visual alerts at the entrances to hospital and outpatient facilities in languages appropriate to the population served, with instructions to implement the following “source control” measures:
    - i. Immediately report symptoms of respiratory infection to the healthcare provider.
    - ii. Use source control measures.



- iii. Wash hands with soap and water or alcohol-based hand gel after contact with respiratory secretions.
  - b. In common waiting areas, maintain spatial separation (ideally at least 3 feet) between symptomatic person and others.
2. Triage patients calling for medical appointments for influenza symptoms to identify patients who need emergency care and those who can be referred to a medical office or other non-urgent care facility.
3. Implement “Access Screening and Control” to triage symptomatic persons:
  - a. Use Clinical Triage Guidelines provided by SCCPHD. Refer to Module V – Clinical Guidelines (Tool 32).
  - b. Limit the number of entrances to the healthcare facility, based on ability to provide appropriate screening.
  - c. Provide security at entrances.
  - d. Establish a “triage officer” to manage flow, including deferring or redirecting patients who do not require emergency care, after performing a medical screening examination.
  - e. Consider designating a separate entrance and waiting area for patients with influenza-like symptoms.
  - f. Implement a system to screen all healthcare personnel for influenza-like symptoms before coming on duty.
2. Implement “source control” measures to limit dissemination of influenza virus from respiratory secretions include covering mouth/nose with a tissue when coughing; disposing of used tissue in contained receptacles; and applying a surgical or procedure mask on the coughing person, as tolerated.
3. Management of infectious patients:
  - a. Respiratory hygiene/cough etiquette
    - i. Respiratory hygiene/cough etiquette has been promoted as a strategy to contain respiratory viruses at the source and to limit their spread in areas where infectious patients might be awaiting medical care (e.g., ambulatory care clinics, emergency departments).

- ii. The impact of covering sneezes and coughs and/or placing a mask on a coughing patient on the containment of respiratory secretions or on the transmission of respiratory infections has not been systematically studied. In theory, however, any measure that limits the dispersal of respiratory droplets should reduce the opportunity for transmission. Masking may be difficult in some settings, e.g., pediatrics, in which case the emphasis will be on cough hygiene.
  - b. The elements of respiratory hygiene/cough etiquette include:
    - i. Education of healthcare facility staff, patients, and visitors on the importance of containing respiratory secretions to help prevent the transmission of influenza and other respiratory viruses.
    - ii. Source control measures (e.g., covering the mouth/nose with a tissue when coughing and disposing of used tissues; using masks on the coughing person when they can be tolerated and are appropriate).
    - iii. Hand hygiene after contact with respiratory secretions.
    - iv. Spatial separation, ideally >3 feet, of persons with respiratory infections in common waiting areas when possible.
  - c. Droplet precautions and patient placement:
    - i. Patients with known or suspected pandemic influenza should be placed on droplet precautions for a minimum of 5 days, and up to 14 days, from the onset of symptoms. Because immunocompromised patients may shed virus for longer periods, they may be placed on droplet precautions for the duration of their illness. Healthcare personnel should wear appropriate PPE. The placement of patients will vary depending on the healthcare setting (see setting-specific guidance).
    - ii. If the pandemic virus is associated with diarrhea, contact precautions (i.e., gowns and gloves for all patient contact) are to be added.
- 4. Selection and use of Personal Protective Equipment: PPE is used to prevent direct contact with the pandemic influenza virus. PPE that may be used to provide care includes surgical or procedure masks, as recommended for droplet precautions, and

gloves and gowns, as recommended for standard precautions by the CDC. Healthcare staff should be instructed in the following:

a. N95 Respirators

- i. Precautions for early stages of a pandemic: Early in a pandemic, it may not be clear that a patient with severe respiratory illness has pandemic influenza. Therefore precautions consistent with all possible etiologies, including a newly emerging infectious agent, should be implemented. This may involve the combined use of airborne and contact precautions, in addition to standard precautions, until a diagnosis is established.
- ii. PPE for managing pandemic influenza with increased transmissibility: The addition of airborne precautions, including respiratory protection (an N95 filtering face-piece respirator or other appropriate particulate respirator), should be used for strains of influenza exhibiting increased transmissibility, during initial stages of an outbreak of an emerging or novel strain of influenza, and as determined by other factors such as vaccination/immune status of personnel and availability of antivirals. As the epidemiologic characteristics of the pandemic virus are more clearly defined, CDC and SCCPHD will provide updated infection control guidance, as needed.
- iii. PPE for aerosol-generating procedures: During procedures that may generate increased small-particle aerosols of respiratory secretions (e.g., endotracheal intubation, nebulizer treatment, bronchoscopy, suctioning), healthcare personnel should wear gloves, gown, face/eye protection, and an N95 respirator or other appropriate particulate respirator. Respirators should be used within the context of a respiratory protection program that includes fit-testing, medical clearance and training. If possible and when practical, use of an airborne isolation room may be considered when conducting aerosol-generating procedures. **NOTE: Nebulizer treatments should be avoided whenever possible.**
- iv. Wear an N95 respirator when entering a patient's room. Ideally, a mask should be worn once and then discarded. When supplies of respirators

become scarce or N95 respirators are no longer required, SCCPHD will issue updated guidelines.

- v. If pandemic influenza patients are cohorted in a common area or in several rooms on a nursing unit, and multiple patients must be visited over a short time, it may be practical to wear one respirator for the duration of the activity; however, other PPE (e.g., gloves, gown) must be removed between patients and hand hygiene performed.
- vi. Change respirators when they become moist.
- vii. Do not leave respirators dangling around the neck.
- viii. Upon touching or discarding a used respirator, perform hand hygiene.

b. Gloves

- i. A single pair of patient care gloves should be worn for contact with blood and body fluids, including during hand contact with respiratory secretions (e.g., providing oral care, handling soiled tissues). Gloves made of latex, vinyl, nitrile, or other synthetic materials are appropriate for this purpose; if possible, latex-free gloves should be available for healthcare workers who have latex allergy.
- ii. Remove and dispose of gloves after use on a patient; do not wash gloves for subsequent reuse.
- iii. Perform hand hygiene after glove removal.
- iv. If gloves are in short supply (the demand during a pandemic could exceed the supply), priorities for glove use might need to be established. In this circumstance, reserve gloves for situations where there is a likelihood of extensive patient or environmental contact with blood or body fluids, including during suctioning.
- v. Use other barriers (e.g., disposable paper towels, paper napkins) when there is only limited contact with a patient's respiratory secretions (e.g., to handle used tissues). Hand hygiene should be strongly reinforced in this situation.

c. Gowns

- i. Most patient interactions do not necessitate the use of gowns. However, procedures such as intubation and activities that involve holding the patient close (e.g., in pediatric settings) are examples of when a gown may be needed when caring for pandemic influenza patients. Wear an isolation gown, if soiling of personal clothes or uniform with a patient's blood or body fluids, including respiratory secretions, is anticipated.
- ii. Gowns should be worn only once and then placed in a waste or laundry receptacle, as appropriate, and hand hygiene performed.
- iii. If gowns are in short supply (the demand during a pandemic could exceed the supply) priorities for their use may need to be established. In this circumstance, reinforcing the situations in which gowns are needed can reduce the number used. Alternatively, other coverings (e.g., patient gowns) could be used. It is doubtful that disposable aprons would provide the desired protection in the circumstances where gowns are needed to prevent contact with influenza virus, and therefore should be avoided. There are no data upon which to base a recommendation for reusing an isolation gown on the same patient. To avoid possible contamination, it is prudent to limit this practice.

d. Goggles or face shield

- i. In general, wearing goggles or a face shield for routine contact with patients with pandemic influenza is not necessary. If sprays or splatter of infectious material is likely, goggles or a face shield should be worn as recommended for standard precautions.

5. Hospitalization of pandemic influenza patients

a. Patient placement

- i. Patients with suspected or laboratory-confirmed illness caused by a novel pandemic influenza virus must be placed into negative-pressure isolation rooms.
- ii. Patients early in pandemic influenza must be placed on airborne precautions.
- iii. Cohort patients as necessary.

- iv. Negative pressure rooms or procedure rooms must be used to decrease the risk of transmission within the hospital during aerosol-generating procedures (i.e., bronchoscopy, endotracheal intubation).
  - v. Contact precautions must be used for patients with symptoms of diarrhea.
  - vi. Immunocompromised patients may shed virus for longer periods and must be placed on airborne precautions for the duration of their illness.
- b. Cohorting: During a pandemic, other respiratory viruses may be circulating concurrently in the community. To prevent cross-contamination of respiratory viruses, whenever possible, hospitals should assign only patients with confirmed pandemic influenza to the same room. Hospitals should consider the following:
- i. Implement cohorting early in the course of a local outbreak to accommodate an anticipated surge of patients.
  - ii. Designate units or areas of the facility for cohorting patients with pandemic influenza and preferably negative pressure isolation rooms.
  - iii. Consult with facility engineers when determining areas to cohort patients to address ventilation systems that are not shared with other areas or rooms.
  - iv. Ensure that personnel assigned to the cohorted patient care units do not “float” or are otherwise assigned to other patient care areas.
  - v. Limit the number of personnel entering the cohorted areas to those necessary for patient care and support.
  - vi. Ensure that healthcare personnel adhere to infection control practices to prevent nosocomial transmission.
- c. Patient transport
- i. Hospitals should limit patient movement and transport outside of the isolation areas to medically necessary purposes.
  - ii. Hospitals should use portable equipment (e.g., portable x-ray equipment) in the isolation areas and clean the equipment after each use.
  - iii. If transportation is necessary, patients should wear a surgical or procedure mask, if tolerated. If a patient cannot tolerate a surgical mask,

apply the most practical measure to contain respiratory secretions such as placing a sheet or towel loosely over the nose/mouth or head, during transport.

d. Visitors

- i. Use "Access Screening and Control" to screen visitors for sign and symptoms of influenza before entry into the facility and exclude persons who are symptomatic.
- ii. Utilize visitors who provide for the patient emotional well-being and are able to assist in provision of care.
- iii. Provide a surgical or procedure mask for visitors to wear while in the patient's room.
- iv. Educate visitors to pandemic influenza patients on the importance of wearing surgical or procedure masks, and using good hygiene including respiratory/cough etiquette.
- v. Post instructions on respiratory and cough etiquette and hand hygiene methods in patient rooms and make necessary supplies and disposal cans available.

6. Post Mortem Care

- a. Hospitals will follow standard facility practices for the care of the deceased. These practices must include standard precautions for the contact with blood and body fluids (i.e., gloves).
- b. If autopsy or procedures are performed on a deceased person with suspected or confirmed influenza and the procedures involve generating higher concentration of aerosols (e.g., cutting through bone), a powered air purifying respirator (PAPR) with N, P, or R-100 cartridge must be worn.

7. Control of nosocomial pandemic influenza

- a. Once patients with pandemic influenza are admitted to the hospital, nosocomial surveillance should be heightened for evidence of transmission to other patients and healthcare personnel. (Once pandemic influenza is firmly established in a community this may not be feasible or necessary – SCCPHD will advise).

- b. To limit nosocomial transmission appropriate control measures should be implemented. These include:
  - i. Use “Access Screening and Control” to screen visitors for sign and symptoms of influenza before entry into the facility and exclude persons who are symptomatic.
  - ii. Cohort patients and staff on affected units.
  - iii. Restrict new admissions (except for other pandemic influenza patients) to the affected unit(s).
- c. Disposal of solid waste: Standard precautions for contact with blood and bloody fluids (i.e., gloves) are required for biohazardous waste; there are no special precautions that are recommended for disposal of respiratory secretions.
- d. Linen and laundry: Healthcare facilities should use standard precautions.
- e. Dishes and eating utensils: Standard precautions are recommended for handling dishes and eating utensils used by a patient with known or possible pandemic influenza. Infection control policies and procedures must address proper cleaning and use; disposable products are not required.
- f. Patient care equipment: Follow standard practices for handling and reprocessing used patient care equipment including medical devices.
  - i. Hospital personnel should wear gloves when handling and transporting contaminated patient care equipment.
  - ii. Hospital personnel should decontaminate patient care equipment with an EPA-approved hospital disinfectant before removing it from the patient’s room; clean, disinfect or sterilize re-usable patient care equipment as appropriate.
  - iii. Hospital personnel should decontaminate external surfaces of portable equipment used to perform x-rays and other procedures in the patient’s room with EPA-approved hospital disinfectant upon removal from the patient’s room.



## **Hospital Risk Communication**

Pandemic influenza risk communication strategies are a critical and necessary component of pandemic influenza preparedness. To be effective, these strategies should be based on scientifically derived risk communications principles and are critical before, during, and after influenza pandemic. Effective communication guides the public, the news media, health-care providers, and other groups in responding appropriately to outbreak situations and adhering to public health measures.<sup>36</sup>

Information regarding a pandemic and the planning for it is coming from a variety of sources. The federal government provides background information and frequent updates for healthcare professionals through the website, [www.pandemicflu.gov](http://www.pandemicflu.gov). Additionally the Centers for Disease Control (CDC) provide information through CDC's Emergency Communication System. At the state level, the California Department of Health Services (CDHS) provides clinician alerts using the California Health Alert Network (CAHAN), and convenes regular conference calls with the Local Health Officer (LHO) and other partners. Information is also provided by the LHO through the SCCPHD. To reduce the likelihood of conflicting or confusing messages across the healthcare system, every effort should be made to coordinate media content between SCCPHD and hospitals. This is true during both the Alert period and Pandemic period.

The Santa Clara County Public Health Public Information Officer (SCCPHD PIO) will collaborate with the Santa Clara County Public Information Officer, taking the lead in development of public health and medical risk communication materials for release to the public, business community, schools, and critical infrastructure including healthcare facilities. Hospital Public Information Officers (PIOs) should initiate and maintain a close working relationship with the SCCPHD PIO, if they have not already done so. Refer to **Module VI – Risk Communication and Public Education**.

### ***Alert Period***

During the Alert period it is important for hospitals to determine methodologies for assuring that the most current information is being received from and provided to the SCCPHD PIO.

Information received should be shared with those appropriate individuals within the organization. Risk communications strategies must be included in the hospital pandemic plan, and preparation for implementing the following strategies should occur.

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<sup>36</sup> HHS Pandemic Plan, Supplement 10 – Public Health Communications, Nov. 11, 2005.

## 1. External Communication

- a. The SCCPHD PIO will maintain a single source of contact with each hospital. Current contact information needs to be provided by each hospital and a plan developed to ensure the information is updated, as needed.
- b. Hospital PIOs should participate in the PIO network, which will be the established mechanism for external communication with the media.
- c. Hospitals should prepare, or utilize messages provided by SCCPHD, for use in call centers, websites, hotlines, recorded messages, etc. These messages should be differentiated for patients, community, and employees.
- d. Hospitals should identify and train individuals who may be expected to support the hospital PIO during periods where there is increased communication flow related to pandemic flu.

## 2. Internal Communication

- a. Hospitals will develop mechanisms for sharing pandemic flu planning with employees.
- b. Hospitals will develop frequently asked questions, or utilize those provided by SCCPHD, which target hospital personnel, differentiating them for patients, and the community.

### ***Pandemic Period***

During the pandemic period, hospital PIOs will:

1. Maintain a single source of contact with SCCPHD PIO, ensuring this information is updated, as needed.
2. Use established mechanisms for external communication with the media and the PIO network.
3. Determine how to keep administrators, personnel, patients, and visitors informed of the ongoing impact of pandemic influenza on the facility and the community.
4. Ensure capacity for increases in communication flow related to pandemic flu.

## **Education and Training**

Each hospital will develop an education and training plan that addresses the needs of staff, patients, family members and visitors. Hospitals will need to assign responsibility for coordination of the pandemic influenza education and training program and identify training materials—in different languages and at different reading levels, as needed—from HHS agencies, state and local health departments, and professional associations.<sup>37</sup>

The following guidelines, taken from the HHS Pandemic Influenza Plan, provide a basis for inclusion of education and training in the hospital's Pandemic Influenza Plan. SCCPHD will provide current information that should be used in developing education and training content.

### ***Alert Period***

Each hospital should develop a plan to provide staff education. Topics for staff education should include infection control strategies for the control of influenza, including respiratory hygiene/cough etiquette, hand hygiene, standard precautions, droplet precautions, and airborne precautions.

1. Hospital-specific topics for staff education should include:
  - a. Policies and procedures for the care of pandemic influenza patients, including how and where pandemic influenza patients will be cohorted
  - b. Pandemic staffing contingency plans, including how the facility will deal with illness in personnel
  - c. Policies for visitation
  - d. Reporting suspected cases of infection caused by novel influenza strains during the Interpandemic and Alert periods to SCCPHD
  - e. Measures to protect family and other close contacts from secondary occupational exposure
2. Hospitals should also:
  - a. Establish a schedule for training/education of clinical staff and a mechanism for documenting participation. Consider using annual infection control updates/meetings, medical Grand Rounds, and other educational venues as opportunities for training on pandemic influenza.

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<sup>37</sup> HHS Pandemic Plan, Supplement 3 – Healthcare Planning, Nov. 11, 2005.

- b. Cross-train clinical personnel, including outpatient healthcare providers, who can provide support for essential patient-care areas (e.g., emergency department, ICU, medical units).
  - c. Train intake and triage staff to detect patients with influenza symptoms and to implement immediate containment measures to prevent transmission.
  - d. Supply social workers, psychologists, psychiatrists and nurses with guidance for providing psychological support to patients and hospital personnel during influenza pandemic. Hospitals should also provide psychological-support training to appropriate individuals who are not mental health professionals (e.g., primary-care clinicians, leaders of community and faith-based organizations).
  - e. Develop a strategy for “just-in-time” training of non-clinical staff who might be asked to assist clinical personnel (e.g., help with triage, distribute food trays, transport patients), students, retired health professionals, and volunteers who might be asked to provide basic nursing care (e.g., bathing, monitoring of vital signs); and other potential in-hospital caregivers (e.g., family members of patients).
3. Education of patient, family members, and visitors

Patients and others should know what they can do to prevent disease transmission in the hospital, as well as at home and in community settings. Hospitals will need to:

- a. Identify and utilize language-specific and reading-level appropriate materials, provided by SCCPHD, for educating patients, family members, and hospital visitors during an influenza pandemic. Refer to **Module VI – Risk Communication** for further description.
- b. Develop a plan for distributing information to all persons who enter the hospital. Identify staff to answer questions about procedures for preventing influenza transmission.

### ***Pandemic Period***

Hospitals will implement mechanisms to distribute updated informational and educational materials to hospital visitors, patients, and patient community, on an on-going basis. It will be essential that the PIO and HEICS Communication Unit leader work closely to assure that the

assigned Education and Training staff receive the most current information to use in their training.

### **Patient Triage**

During the peak of a pandemic, hospital emergency departments and outpatient offices will be overwhelmed with patients seeking care. Therefore, triage will be required to:

1. Identify persons who might have pandemic influenza.
2. Separate them from others to reduce the risk of disease transmission (Reference Section 3 - Infection Control).
3. Identify the type of care they require (i.e., homecare or hospitalization) using admission and triage guidelines provided by SCCPHD. Refer to **Module V—Clinical Guidelines and Disease Management**.

### ***Alert Period***

SCCPHD has developed these clinical guidelines to be used by hospitals in planning the triage component of their hospital Pandemic Influenza Plan. The following elements are to be included in the hospital planning:

1. Develop a strategy for triage of possible pandemic influenza patients including specific locations within, and during peak waves, external to the hospital. Refer to “Clinical Triage Guidelines during Pandemic Critical Resources Stage” developed by SCCPHD (**Tool 32**). Implement the following triage mechanisms:
  - a. Use phone triage to identify patients who need emergency care and those who can be referred to a medical office or other non-urgent facility.
  - b. Assign separate waiting areas for persons with respiratory symptoms.
  - c. Assign a separate triage evaluation area for persons with respiratory symptoms.
  - d. Assign a “triage coordinator” to manage patient flow, including deferring or referring patients who do not require emergency care.
2. Review current procedures for the clinical evaluation of patients in the emergency department and in outpatient medical offices to facilitate efficient and appropriate disposition of patients.

3. Review current admission procedures and streamline them as needed to limit the number of patient encounters in the hospital (e.g., direct admission to an inpatient bed).
4. Identify a “trigger” point at which screening for signs and symptoms of pandemic influenza in all persons entering the hospital will escalate from passive (signs at the entrance), to active (Access Screening and Control).

### ***Pandemic Period***

Implement the triage plans developed during the Alert period and assure that clinicians and staff receive and implement any updated information or guidance received from SCCPHD or CDHS.

### **Clinical Guidelines**

Refer to **Module V—Clinical Guidelines and Disease Management** for a complete description of guidelines for healthcare providers.

The CDHS “Pandemic Influenza Preparedness and Response Plan” acknowledges, “The management of influenza is based primarily on sound clinical assessment and management of individual patients as well as an assessment of locally available resources such as rapid diagnostics, antiviral drugs and vaccines, and hospital beds.

Healthcare providers play an essential role in detecting an initial case of novel or pandemic influenza in a community. Early detection through heightened clinical awareness of disease and swift action for isolation and initiation of treatment can benefit the individual patient and may slow the spread of influenza within the community. Rapid diagnosis and intervention with clinical care can potentially avert severe complications.”<sup>38</sup>

The SCCPHD distributed a Physician Alert dated December 9, 2005 (**Tool 10**), which addresses the diagnosis of novel influenza infections. Additionally, the SCCPHD Laboratory has provided information on criteria for influenza A (H5N1) diagnostic testing, who to contact regarding clinical consultation, procedures for safe handling and collection of clinical specimens (as well as submittal and case history forms), where to send specimens, and resources for additional information that may be useful to clinicians (**Tool 12**).

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<sup>38</sup> California Department of Health Services Pandemic Influenza Preparedness and Response Plan, Draft. Appendix 5, pg. ., January 2006.

### ***Alert Period***

1. Hospital Pandemic Influenza Plans should include a defined process for assuring that clinical guidance received from SCCPHD and CDHS are shared with all clinicians.
2. SCCPHD has developed “Figure 1: Clinical Algorithm for Case Management- Alert period” (Tool 29), that should be used by all SCC clinicians in evaluating and diagnosing a novel Influenza. This includes both clinical criteria and epidemiological criteria.

### ***Pandemic Period***

SCC Hospitals should implement plans to assure that clinical guidance received from SCCPHD and CDHS are shared with all clinicians.

### **Use and Administration of Vaccines and Antiviral Drugs**

Refer to **Module V—Clinical Guidelines and Disease Management** for a complete description of the use and administration of vaccines and antiviral drugs during an influenza pandemic.

Once the characteristics of a new pandemic influenza virus are identified, the development of a pandemic vaccine will begin. Recognizing that there may be benefits to immunization with a vaccine prepared before the pandemic against an influenza virus of the same subtype, efforts are underway by the federal government to stockpile vaccines for subtypes with pandemic potential. As supplies of these vaccines become available, it is possible that the federal government will recommend that some healthcare personnel and others critical to a pandemic response will be vaccinated to provide partial protection or immunological priming for a pandemic strain. HHS has not finalized policies for the use of pre-pandemic vaccine. During a pandemic, these recommendations will be updated, taking into account populations that are most at risk.

Antiviral drugs effective against the circulating pandemic strain can be used for treatment and possibly prophylaxis during influenza pandemic. Decisions regarding whether to prioritize use of antivirals for treatment over prophylaxis, or for prophylaxis over treatment, will be determined, to the extent possible, on the basis of demonstrated efficacy of the antiviral agents against novel and pandemic influenza strains.

### ***Alert Period***

SCC hospitals will:

1. Monitor updated HHS information and recommendations on the development, distribution, and use of a pandemic influenza vaccine (<http://www.pandemicflu.gov>).
2. Work with SCCPHD on plans for distributing pandemic influenza vaccine. The SCCPHD is currently (April 2006) finalizing a Mass Prophylaxis Plan.
3. Provide estimates of the quantities of vaccine needed for hospital staff and patients using SCCPHD criteria.
4. Develop a hospital pandemic influenza vaccination plan.

### ***Pandemic Period***

SCC hospitals will:

1. Follow SCCPHD guidelines for use and administration of antiviral drugs for prophylaxis measures and treatment, if available.
2. Implement the hospital pandemic influenza vaccination plan, as directed by SCCPHD.

### **Surge Capacity**

Medical surge capacity is “the ability to evaluate and care for a markedly increased volume of patients that challenges or exceeds normal operating capacity.” Medical surge capability is “the ability to manage patients requiring unusual or very specialized medical evaluation of care.”<sup>39</sup>

Hospitals are to include Surge Capacity planning as a part of their hospital Pandemic Influenza Plan.

Healthcare facilities are to plan ahead to address emergency staffing needs and increased demand for isolation beds, ICUs, assisted ventilation services, and consumable and durable medical supplies.

### **Staffing**

#### ***Alert Period***

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<sup>39</sup> Medical Surge Capacity and Capability. The CAN Corporation, 2004. California Department of Health Services Pandemic Influenza Preparedness and Response Plan, Draft: Appendix 3, pg. 11. January 2006.



CDHS has acknowledged the need for hospitals to set aside current nurse-to-patient ratios, in response to an emergency. Current guidelines provided by CDHS recommend planning for a 1:5 ratio for critical care level patients and 1:20 ratio for medical-surgical level patients<sup>40</sup>.

SCC Hospitals are to include the following in their Hospital Pandemic Influenza Plan:

1. Activate HEICS Nurse Unit Leader to coordinate shift-to-shift staffing during waves of surge admissions.
2. Estimate the minimum number and categories of personnel needed to care for patients with influenza complications in each patient care area that is activated.
3. Determine how the hospital will meet staffing needs as the number of patients with pandemic influenza increases and/or healthcare and support personnel become ill or remain at home to care for ill family members.
4. Determine when any changes in shift hours, i.e., 12-hour shift rotations, will be implemented, if needed.
  - a. Assign patient-care responsibilities to clinical instructors; case management nurses, or administrators.
  - b. Use medical volunteers.
  - c. Use trainees (e.g., medical and nursing students).
  - d. Use patients' family members in an ancillary healthcare capacity.

### ***Pandemic Period***

SCC Hospitals will:

1. Implement Hospital Medical Surge – Staffing Plans.
2. Consult with SCCPHD regarding the changes in patient-nurse ratio recommendations.
3. Create a list of essential-support personnel titles that are needed to maintain hospital operations; create a list of non-essential positions that can be re-assigned to support critical hospital services.,
4. Consult with SCCPHD for recruitment and deployment of local personnel, including medical volunteers.

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<sup>40</sup> Surge Hospitals: Providing Safe Care in Emergencies, Joint Commission on Accreditation of Healthcare Organizations, 2006. California Department of Health Services Pandemic Influenza Preparedness and Response

## **Bed Capacity**

### ***Alert Period***

SCC hospitals are to include the following in their Pandemic Influenza plans:

1. Develop a Rapid Discharge Plan for expediting the discharge of patients who no longer require higher levels of medical/surgical inpatient care.
2. Develop criteria or “triggers” for temporarily canceling elective surgical procedures and determining what and where emergency procedures will be performed during a pandemic.
3. Develop plans for use of overflow space to triage, transfer/discharge, and treat patients, including using suspended beds, converting out-patient space to in-patient space, using non-patient areas and obtaining permission from CDHS Licensing and certification Division to use these spaces in an emergency.
4. Develop plans for shifting patients between nursing units to free up bed space in critical-care areas and/or to cohort pandemic influenza patients.
5. Identify areas of the facility that could be vacated for use in cohorting influenza patients in response to a high census.

### ***Pandemic Period***

During waves of patient surge in the Pandemic Period, SCC hospitals will:

1. Implement plans for enhancing bed capacity, as appropriate.
2. Review and revise admissions criteria, as provided by SCCPHD, when bed capacity is limited.

## **Consumable and Durable Supplies**

### ***Alert Period***

During extended waves of an Influenza Pandemic, consumable and durable patient supplies will be in short supply, and high rates of illness will impact the supply chain. To prepare for such a possibility each SCC hospital must:

1. Inventory critical supplies, anticipated for use in treating pandemic influenza patients.
2. Determine usage levels and stockpile enough consumable resources for the duration of a pandemic wave (12 weeks).
3. Develop a strategy for acquiring additional equipment, (e.g., ventilators).
4. Determine usage levels and stockpile enough food and water to care for patients and staff for the duration of a pandemic wave.
5. Develop a strategy for acquiring additional food and water supplies.
6. Test systems for procuring and storing additional supplies and address stockpile rotation issues.
7. Repair durable equipment, such as beds and cardiac monitors, not currently in working order on an expedited basis and plan ways to shorten the maintenance cycle.

### ***Pandemic Period***

SCC hospitals will:

1. Implement components of the hospital Pandemic Influenza Plan related to consumable and durable supplies.
2. Activate the HEICS Materials Support Unit Leader position to monitor critical supplies inventories, activate appropriate MOUs with vendors, and keep the HEICS Command Team informed of potential shortages.
3. Contact the SCCPHD DEOC using resource request forms when supplies are needed that the hospital can no longer obtain them.
4. Activate the HEICS Nutritional Support Unit Leader position to monitor critical supplies of food and water inventories, activate appropriate MOUs with vendors, and keep the HEICS Command Team informed of potential shortage.

### **Continuation of Essential Medical Services**

#### ***Alert Period***

Hospitals must continue to provide essential medical care to patients requiring trauma care; labor and delivery; emergency surgery (e.g., cardiac, stroke); and, emergency medical care (e.g., asthma, diabetic acidosis, chest pain, etc.).

SCC hospitals must:

1. Address how essential medical services will be maintained for persons with chronic medical problems served by the hospital (e.g., hemodialysis patients, cancer therapy patients).
2. Develop a strategy for ensuring uninterrupted provision of critical medicines to outpatients. Consider dispensing a 60- to 90-day supply.

### ***Pandemic Period***

Each hospital must implement plans for continuation of essential medical services, and review and revise admission criteria, as provided by SCCPHD, when bed capacity is limited.

### **Mortuary**

#### ***Alert Period***

To prepare for the possibility of mass fatalities during influenza pandemic, hospitals must:

1. Assess current capacity for refrigeration of deceased persons.
2. Review current disaster plan for managing remains and temporary morgue overflow.
3. Modify plans to address potential need to manage contaminated remains for days.
4. Determine the scope and volume and create a stockpile of supplies (e.g., body bags) needed to handle an increased number of deceased persons

#### ***Pandemic Period***

Each SCC hospital will:

1. Activate overflow morgue capacity plans.
2. Receive and use guidance from the Coroner regarding disposition of deceased (morgue sites).

### **Security/Facility Access**

Healthcare facilities must plan for additional security. This will be required given the increased demand for services and the possibility of long wait times for care and inability to rely on law enforcement for assistance. Also, triage or treatment decisions may result in people not

receiving the care they think they require. As the pandemic progresses, it may be necessary to lock down healthcare facilities and limit entrance only to those patients who meet admission criteria.

### ***Alert Period***

Hospitals must determine in advance the criteria and procedures they will use to enhance hospital security and limit access to the facility if pandemic influenza spreads through the community. This includes:

1. Define “essential” and “non-essential” visitors with regard to the hospital and the population served. Develop protocols for limiting non-essential visitors.
2. Develop criteria or “triggers” for temporary closing of the hospital to new admissions and transfers. The criteria should consider staffing ratios developed by CDHS, isolation capacity and risks to non-influenza patients. As part of this effort, hospital administrators should determine who will make decisions about temporary closings and how and to whom these decisions will be communicated, including SCCPHD.
3. Implement controls necessary to assure that the hospital is able to physically secure all entrances.
4. Plan for additional security during a critical pandemic wave.
5. Assess the viability of the security contract during times of high demand.
6. Determine how to assist hospital security services in enforcing access controls. Consider meeting with local law enforcement officials in advance to determine what assistance, if any, they can provide. Note that local law enforcement might be overburdened during a pandemic and have limited ability to assist healthcare facilities with security services.

### ***Pandemic Period***

Implement Security/Facility Access component of the Hospital Pandemic Influenza Plan.

### **Occupational Health**

Healthcare personnel are at risk for pandemic influenza through community and healthcare-related exposures. Once pandemic influenza has reached a community, healthcare facilities must implement systems to monitor for illness in the facility workforce and manage those who are symptomatic or ill.

### ***Alert Period***

Each SCC hospital must:

1. Implement a system to educate personnel about occupational health issues related to pandemic influenza.
2. Promote annual influenza vaccination among hospital employees. Increased vaccination coverage during the Interpandemic period might help increase vaccine acceptance during a pandemic and will limit the spread of seasonal influenza.
3. Ensure that a system is in place for documenting influenza vaccination of healthcare personnel.
4. Establish a strategy for rapidly vaccinating or providing antiviral prophylaxis or treatment to healthcare personnel as recommended by HHS and CA DHS. Preliminary recommendations on the use of antiviral drugs and vaccination have been established but will need to be tailored to fit the epidemiology of the pandemic. Refer to **Module V—Clinical Guidelines and Disease Management**.
5. Complete planning needed to implement the actions noted below during the Pandemic period.

### ***Pandemic Period***

Each hospital will:

1. Screen all personnel for influenza-like symptoms before they come on duty, using criteria provided by SCCPHD. Symptomatic personnel should be sent home until they are physically ready to return to duty.
2. Personnel who are at high risk for complications of pandemic influenza (e.g., pregnant women, immunocompromised persons) should be informed about their medical risk and offered an alternate work assignment, away from influenza-patient care, or considered for administrative leave until pandemic influenza has abated in the community.
3. Ensure that employees receive guidance or training on homecare preparation.
4. Healthcare personnel who have recovered from pandemic influenza should develop protective antibody against future infection with the same virus, and therefore may be prioritized for the care of patients with active pandemic influenza and its complications.

These workers would also be well suited to care for patients who are at risk for serious complications from influenza (e.g., transplant patients and neonates).

5. Provide access to mental health and faith-based resources for counseling of health care personnel, coordinated by the HEICS Psychological Support Unit Leader.
6. Implement a strategy for supporting healthcare workers' needs for rest and recuperation, coordinated by the HEICS Staff Support Unit Leader.
7. Implement a strategy for housing and feeding healthcare personnel who might be on-site for prolonged periods, coordinated by the HEICS Staff Support Unit Leader.
8. Provide assistance to staff that have child-care or eldercare responsibilities so the staff may remain available to work, by implementing hospital Dependant Care Plan, coordinated by the HEICS Dependant Care Unit Leader.

### **Recovery**

Pandemic Influenza is anticipated to arrive in two to three waves over the course of several years, with a trough between the waves. These troughs – substantial decreases in new cases – offer opportunities for recovery similar to the return to the Interpandemic phase that would occur after the cessation of the pandemic, and a chance to regroup, learn, and prepare for the next wave.<sup>7</sup> Healthcare facilities will need to:

1. Complete documentation of costs associated with the pandemic influenza response.
2. Identify and disseminate best practices related to information dissemination, clinical management, infection control, coordination of patient management, etc.
3. Compile reports of shortages and restock supply cache.
4. Evaluate the use of volunteers, expanded scope, alternative treatment sites, etc.
5. Adjust emergency plans for use of personnel, supplies, facilities; and review and update plans to include guidance and recommendations issued during the previous phases in accordance with current evidence and available resources.

## NON-HOSPITAL HEALTHCARE FACILITIES

Non-hospital healthcare settings will serve an important role during pandemic influenza. It is anticipated that acute care hospitals will be unable to admit all acute care level patients. Surgical centers must prepare to alter their usual activities so they may provide care to pandemic influenza patients with an acute medical/surgical level of acuity. Skilled nursing facilities must prepare to not only care for their normal clientele but must plan their ability to add beds to be able to admit and care for medical/surgical level patients that need supplemental oxygen and intravenous fluids. These facilities must also prepare for care of infected patients that may need droplet and contact precautions. Community ambulatory clinics and urgent care centers must prepare for a surge of patients requiring medical screening and ensure their clinicians maintain an awareness of the SCCPHD triage process; appropriate communication process for admission of the seriously ill to acute care hospitals or immunization care centers; and changes in practice protocols or standards of care.

The hospital planning recommendations included in Section 1 can serve as a model for planning non-healthcare settings including: surgical-centers; urgent care settings; skilled nursing facilities; other residential care facilities; and primary care health centers. All healthcare facilities must:<sup>41</sup>

1. Create a planning team and develop a written plan for continued operation of the specific facility during pandemic influenza.
2. Establish a decision-making and coordinating structure that can be tested during the Interpandemic period and will be activated during influenza pandemic.
3. Determine how to conduct surveillance for pandemic influenza in healthcare personnel; and, for residential facilities, in the population served.
4. Develop policies and procedures for managing pandemic influenza in patients and staff.
5. Educate and train healthcare personnel on pandemic influenza, appropriate levels of infection control precautions, wearing appropriate PPE, and the healthcare facility's response plan.
6. Determine how the facility will communicate and coordinate with healthcare partners and public health authorities during a pandemic.

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<sup>41</sup> HHS Pandemic Plan; Supplement 3 – Healthcare Planning, Nov. 11, 2005.



7. Determine how the facility will communicate with patients and help educate the public regarding prevention and control measures.
8. Develop a plan for procuring the supplies (e.g., personal protective equipment [PPE]) needed to manage influenza patients.
9. Determine how the facility will participate in the community plan for distributing either vaccine or antiviral drugs, including possibly serving as a point of distribution and providing staff for alternative community points of distribution.

## **INFLUENZA CARE CENTERS**

### **Definition and role of Influenza Care Centers**

An Influenza Care Center (ICC) is a location not purpose-built as a setting for the delivery of health care. At an ICC, basic services—food, shelter and health care—will be provided at a standard well below that of institutional settings. Persons with presumed influenza can be cohorted with others also exposed to influenza. Concentrating resources and staffing at an ICC may facilitate provision of services to larger numbers of ill patients.

The primary non-institutional setting for care of persons ill with pandemic influenza will be the patient's home, not the ICC, whenever possible.

An ICC is intended for persons with insufficient home-based resources (lack of caregiver, lack of permanent address, etc.) who cannot be admitted to a hospital setting, or released directly to home from a hospital setting, or would have anticipated problems with self-care activities. The ICC could also serve to quarantine persons in separate section of the facility (e.g., individuals who experience a potential exposure during air travel may be quarantined in a separate section of a facility if they do not have another location at which they can be quarantined. Refer to **Module IV—Limiting the Spread of Disease**, Isolation and Quarantine).

At an ICC, the standard of health care will be commensurate with the available level of resources. Absent sufficient staff and equipment—a likely scenario during a pandemic—service levels will be minimal, with a focus on supportive care. The standard of care will be adjusted upward when staff and supplies allow.

## **Command and Control**

All activities at the Influenza Care Center will be under the supervision of an on-site ICC Administrator who will report to the Operations Section of the Public Health Department Emergency Operations Center.

## **Admission to ICC**

Controlled access to ICCs will be in place for admission of patients, staff and visitors. Patients will be limited to those admitted through hospital referral or from triage settings designated by the Health Officer.

Refer to **Module V—Clinical Guidelines and Disease Management** for a description of the triage algorithm related to admission to an ICC and the appendices for a presentation of the algorithm (**Tool 32**).

Two broad categories of patients may be admitted to an ICC:

1. Persons with medical conditions similar to those admitted to hospitals but unable to gain admission because of capacity issues. These patients would be cared for on a “medical-surgical” floor.
2. Persons less ill but with insufficient home-based resources who need assistive care.

## **Infection Control Measures**

The administrator of the ICC will ensure compliance with disease reporting responsibilities. Prevention of disease transmission through standard/respiratory/droplet precautions, and appropriate use of PPE for standard, droplet, and airborne precautions, as well as disinfection procedures, will be required. Refer to infection control recommendations in the hospital section above.

## **Selection of Influenza Care Centers**

The November 2005 federal guidance recommends that ICC selection be related to the following desirable characteristics:

1. Bed capacity and spatial separation of patients, including adequate room to place equipment and to enable movement of patients on gurneys and wheelchairs
2. Facilities and supplies for hand hygiene
3. Lavatory and shower capacity for large numbers of people

4. Food services (refrigeration, food handling and preparation)
5. Medical services
6. Staffing for patient care and support services
7. PPE supplies
8. Cleaning/disinfection supplies
9. Environmental supplies (linen, laundry, waste)
10. Safety and security
11. Space for collection of deceased bodies

Currently in Santa Clara County only hospitals and skilled nursing facilities meet all desirable characteristics. Therefore, selection of an ICC must be drawn from hotels, school gymnasiums, convention facilities, armories and other buildings that best match the list of desirable characteristics. Due to their physical layout and on-site service infrastructure, hotels will be likely the preferred facility in selection of ICCs. The Health Officer has powers in a declared emergency to commandeer private property. The Public Health Department will work proactively to maintain annually updated lists of ICC and work toward Memoranda of Understanding with facilities managers.

Sites that may be designated as Influenza Care Centers may change over time based on need and epidemiological data, staff and supply status, and Health Officer directives. The public and providers will be informed on ICC via hotlines, press releases and provider bulletins.

The plan emphasizes the selection of the fewest possible sites to recognize the tactical/strategic issues associated with staffing and supplying the selected sites. The plan prioritizes proximity to larger hospitals over geographic distribution throughout the county in recognition of the burden on transport services during the pandemic.

#### **Influenza Care Centers for acutely ill persons (“medical-surgical” patients)**

The selected facilities will enable health professionals to care for larger number of persons in high-capacity rooms. Health professionals will be able to move quickly among the patients and maximize the ratio of ill persons to health professionals. Equipment can also be moved quickly between patients.

### **Influenza Care Centers for less acutely ill persons (assistive care patients, or quarantined persons)**

The guest rooms of hotels and additional sites commandeered by the Health Officer may be used to place less acutely ill persons. Those able to undertake some self care can be placed in guest rooms. Because they have more self-care capability, the ratio of patients to health care professionals will be adjusted accordingly. Those in the ballrooms (acutely ill) will need more medical supervision. Those whose conditions improve can be moved to private rooms or be discharged immediately to home. (See below for Staffing.)

One or two sites may be selected as pediatric sites, based on need epidemiological data.

The “dual use” of the larger hotels – “acute care” patients in the ballrooms and “self care” patients in guest rooms – enables centralizing staff, supply, security and associated issues at a limited number of sites. Those who may be quarantined at an ICC will to the extent possible be separated from confirmed or suspected cases of pandemic influenza.

### **Staff at Influenza Care Centers**

A daunting challenge, and perhaps the limiting factor in the use of Influenza Care Centers, will be the number of able-bodied and competent health care professionals to oversee their operations. Health care professionals will be needed at ICCs to manage care of ill persons and to provide direction to other Disaster Service Workers assigned to assist. To the extent that insufficient numbers of health professionals are in attendance, the standard of care will degrade to basic sheltering level.

For “acute-care” patients, at least one physician/practitioner per 60 patients and one licensed nurse per every 20 patients are recommended per 8-hour shift. One pharmacist or pharmacist technician will be needed at each ICC at all times. One skilled person (psychiatric social worker, counselor, or other worker) will be assigned to address mental/emotional issues among patients and staff. Ancillary health professionals (respiratory therapists, physical therapists, occupational therapists, etc.) are desirable, although few may be available. Healthcare professionals will be assigned from the Medical Volunteer Corps, from outpatient or clinic-based settings.

Unlicensed staff and staff with no background in the provision of direct patient care will be drawn from among Disaster Service Workers provided through the Department Emergency Operations Center. An orientation and just-in-time training will be provided upon assignment

(Tool 15).

A schematic of the physical set-up for the Influenza Care Center (Tool 16) and a schematic of a nurse station at the Influenza Care Center (Tool 17) are included in the appendices.

Arrangement for translator/interpreters will be made. Requests for bilingual staff can be arranged through requests made to the DEOC.

A suite of rooms at the hotels serving as Influenza Care Centers will be reserved as staff accommodations. This will enable some staff to be maintained at the ICC on a 24/7 basis. Command and control staff will be allocated sleeping quarters to maintain operational continuity of direction.

Law enforcement, supplemented by other Disaster Service Workers as requested through the Department Emergency Operations Center, will provide security and links to the Coroner's Office.

Hotel and facility staff normally assigned to janitorial duties, food preparation duties and housekeeping duties will be expected to facilitate these functions during such time as the facility serves as an ICC. Supplemental/Additional workers for these tasks will be assigned through requests to the Department Emergency Operations Center. Duty statements for Influenza Care Center staff are included in the appendices (Tool 18).

### **Supplies at Influenza Care Centers**

The Influenza Care Centers under consideration have commissary/kitchen facilities and may have limited on-hand foodstuffs and janitorial/housekeeping supplies. These items will need to be restocked over time, a responsibility of the Public Health Department Emergency Operations Center during a pandemic. A checklist of supplies needed at ICCs is included in the appendices (Tool 19).

Medical supplies such as personal protective equipment (PPE), gurneys, cots/beds, durable medical equipment, etc., may be commandeered from medical supply companies or redirected from caches under the control of the American Red Cross. Some of the supplies may overlap with American Red Cross warehoused supplies typically used for sheltering displaced persons subsequent to earthquakes, floods and other events. The local Red Cross chapters will make available a cache of over 6,000 cots and blankets, upon request. The Red Cross will also provide staff to deliver and set up cots and other materials.

Prescription and over-the-counter medications will be in demand, not only those medications specific for influenza, but also medications for pre-existing conditions. A checklist of influenza-related and other medicines is pending development. A table of antibiotics regimens is included in the appendices (**Tool 35**).

The Finance Section at the Department Emergency Operations Center will work with hotels and other commandeered facilities to retain adequate records for FEMA-reimbursable payments.

## **SPECIAL CONSIDERATIONS**

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

1. Consider prioritizing hospitalization versus assignment to an Influenza Care Center for some special populations. Refer to **Module V – Clinical Guidelines and Disease Management** for admissions criteria to levels of care, including hospitals, ICCs, and home.
2. Consider the assistive care needs of special populations at Influenza Care Centers.
  - a. The assistive care needs of special populations such as persons with impaired mobility or those with acute mental/emotional illness must be taken into account at the time of the triage decision. Based upon need, some Influenza Care Centers may be designated for particular target populations.
  - b. Influenza Care Centers designated for a special population group require staffing (for example, mental health professionals for a center catering to persons with mental illness), equipment (for example, hydraulic lifts for person unable to assist with transfers) and other considerations (for example, wide aisles to enable wheelchair access) as indicated. Absent proper staffing, supplies or infrastructure, special populations may be deemed inappropriate for Influenza Care Center admission. The on-site ICC Administrator is responsible for informing the DEOC Operations Section Chief regarding limiting factors at the ICC.
3. Ensure multilingual staff capacity at Influenza Care Centers.
4. Consider optimal location of care for patients who are incarcerated.

### Module III – Health Care Tools

Tool 10– Public Health Laboratory Informational No.: 2005-4: Instructions for when to suspect infection with a novel influenza strain (such as H5N1), how to collect appropriate specimens, and how to send them directly to the SCCPHL. **See Module II – Surveillance.**

Tool 15 – Just-in-Time Influenza Care Center Orientation

Tool 16 – Schematic of Physical Set-up of Influenza Care Center

Tool 17 – Schematic of Nurse Station at Influenza Care Center

Tool 18 – Duty Statements for Influenza Care Center Staff

Tool 19 – Checklist of Supplies for Influenza Care Centers

Tool 29 – Figure 1: Clinical Algorithm for Case Management- Alert period. **See Module V – Clinical Guidelines and Disease Management.**

Tool 32 – Clinical Triage Guidelines during Pandemic Critical Resources Stage. **See Module V Clinical Guidelines and Disease Management.**

Tool 35 – Empiric antibiotic regimens for community acquired pneumonia during an influenza pandemic. **See Module V Clinical Guidelines and Disease Management**

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# Pandemic Influenza

Preparedness & Response Plan

## Module IV Measures to Limit the Spread of Disease



**Public Health Department**  
Santa Clara Valley Health & Hospital System



Module IV

DRAFT

# Critical Capacity Module IV

## Limiting the Spread of Disease

### INTRODUCTION

**Limiting the Spread of Disease** is a critical capacity required to minimize morbidity and mortality in Santa Clara County. After a pandemic strain of influenza virus begins circulating in the community, individual and community cooperation with implementation of disease control measures will be necessary to limit the spread of disease. These measures include adherence to infection control guidelines, social distancing strategies such as school closures and cancellation of large public gatherings, and travel restrictions. Isolation of ill persons and quarantine of those exposed may also be useful measures, but only during the Alert period or very early in the pandemic before the virus is circulating widely in the local area. All of these measures are designed to slow the spread of disease and limit cases to the extent possible, particularly during the time when a vaccine is not yet available.

#### Desired Outcomes

1. Implement effective infection control measures at all levels of society.
2. Slow the spread of pandemic influenza within Santa Clara County.

### **INFECTION CONTROL GUIDELINES FOR OUTSIDE OF THE HEALTHCARE SETTING** (e.g., schools, workplace, correctional facilities, homes, board and care, etc.)

Consistent adherence to infection control practices will be critical to limiting spread of disease. To the extent possible, each individual needs to learn the basic concepts of infection control and be equipped to practice them in whatever setting they may find themselves, be it home, school, the workplace or another non-health care setting. These infection control concepts should be applied in both the pandemic alert and the pandemic periods.

## **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 airborne transmission 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.

1. Droplet Transmission – 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 (> 10  $\mu\text{m}$  in diameter) requires close contact between source and recipient persons, because droplets do not remain suspended in the air and generally travel only short distances (about 3 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.
2. Contact 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, usually inanimate, in the patient’s environment.
3. Transmission via contaminated hands and fomites (objects) has been suggested as a contributing factor in some studies. 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. Virus can survive on hands for up to 5 minutes after transfer from an environmental surface. Higher humidity shortens virus survival.

4. Airborne transmission – Airborne transmission occurs by dissemination of either airborne droplet nuclei (< 5 µm 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 and environmental variation that generally limit survival in the airborne state. Preventing the spread of agents that are transmitted by the airborne route requires the use of special air handling and ventilation systems (e.g., negative pressure rooms).

The relative contribution of airborne transmission to influenza outbreaks is uncertain. Evidence is limited and is principally derived from laboratory studies in animals and 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 UV radiation. Another study indicated that humidity can play a role in the infectivity of aerosolized influenza, although the influence of humidity on the formation of droplet nuclei was not evaluated.

*Small particle aerosols.* 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 in shared spaces with poor air circulation. An experimental study involving human volunteers found that illness could be induced with substantially lower virus titer 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 is 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 does not travel long distances (i.e. through ventilation systems). Our recommendations are thus based on close contact spread.

### **Infection Control Practices to Prevent 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 not infected persons.

Whenever possible, isolate infected persons. In the workplace or school, persons with symptoms of influenza (fever, headache, myalgia [muscle pain], prostration, cough, rhinitis [runny nose], or sore throat) should be sent home. If they cannot be sent home immediately, confine to a separate room. If contact between infected and not infected cannot be avoided (e.g., during transport in a car), place a surgical or procedure mask over the nose and mouth of the ill person and open the windows to increase air circulation.

2. Contain infectious respiratory secretions of the ill.

- a. All persons with signs and symptoms of a respiratory infection, regardless of presumed cause, should:

- i. Cover their nose and mouth when coughing or sneezing, preferably with a tissue or cloth.
- ii. Use tissues to contain respiratory secretions.
- iii. Dispose of tissues in the nearest waste receptacle after use.
- iv. Perform hand hygiene (wash hands with soap and water) after contact with respiratory secretions and contaminated objects/materials.

- b. Schools, workplaces, businesses and other places where people congregate should ensure availability of supplies to facilitate use of tissues, proper disposal and hand hygiene. Wherever possible,

- i. Provide tissues and garbage receptacles.



Tissues used by the ill person and other waste should be placed in a bag and disposed of with other household waste.

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. Hand hygiene should be performed 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

Environmental surfaces in the home, workplace, school, etc., can be cleaned using normal procedures. An EPA-registered hospital disinfectant can be used according to manufacture’s instructions, but is not necessary. There is no evidence to support the widespread disinfection of the environment or air.

### **Infection Control Considerations for Specific Settings**

For each of the settings described below, the infection control guidance described under “Infection control practices to prevent spread of disease” applies as well as the setting-specific guidance below.

1. Pre-hospital care (emergency medical services)

- a. Screen patients requiring emergency transport for symptoms of influenza.
- b. Follow standard and droplet precautions when transporting symptomatic patients.
- c. Once pandemic influenza has been identified in the community, use surgical or procedure masks for all patient transport.
- d. 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, difficult for the patient to wear), have the patient cover the



mouth/nose with tissue when coughing, or use the most practical alternative to contain respiratory secretions.

- e. Oxygen delivery with a non-rebreather face mask can be used to provide oxygen support during transport. If needed, positive-pressure ventilation should be performed using resuscitation bag-valve mask.
- f. Unless medically necessary to support life, aerosol-generating procedures (i.e., mechanical ventilation) should be avoided during pre-hospital care.
- g. 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 can provide separate ventilation to each area.
- h. Notify the receiving facility that a patient with possible pandemic influenza is being transported.
- i. Follow standard operating procedures for routine cleaning of emergency vehicles and reusable patient care equipment.

## 2. Home

- a. Physically separate the patient with influenza from non-ill persons living in the home as much as possible. If more than one person in the home has influenza, all ill persons can share the same room. Ideally the patient(s) with influenza should have their own room with windows that open to increase air circulation.
- b. Patients should not leave the home during the period when they are most likely to be infectious (up to 14 days for a novel influenza virus; duration of isolation may be shortened to as few as 5 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 the mouth and nose when coughing and sneezing and should wear a mask.
- c. As much as is possible, one person in the home should be the designated caregiver and all others should limit contact to the extent possible.
- d. Follow general infection control measures described above.

## 3. Daycare and Schools

- a. Keep sick students, teachers and other workers away from school or daycare while ill.
  - b. 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 during the waiting period.
  - c. Promote respiratory hygiene, cough etiquette and hand hygiene as for any respiratory infection.
  - d. Routine environmental cleaning is adequate.
4. Workplace
- a. Keep sick workers away from the workplace while ill and potentially infectious (up to 14 days from onset of illness; this may be revised to a shorter period when more is known about the virus).
  - b. 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 during the waiting period.
  - c. Promote respiratory hygiene, cough etiquette and hand hygiene as for any respiratory infection.
  - d. Routine environmental cleaning is adequate.
5. County correctional facilities: The jails represent a special setting in which crowding and barrack-style living may increase transmission of influenza and special care should be taken to identify infectious inmates as early as possible.
- a. To the extent possible, cohort inmates into three groups:
    - i. Ill
    - ii. Exposed
    - iii. Not ill and not exposed
  - b. Ill inmates should be kept in a well-ventilated room or rooms physically separate from the remainder of the population.
  - c. Jail staff assigned to the ill inmates should not float or have any contact with the second or third groups.

- d. Promote respiratory hygiene, cough etiquette and hand hygiene as for any respiratory infection.
- e. Once a pandemic is established, masks for all inmates and staff are recommended.
- f. Routine environmental cleaning is adequate.

## **NON-MEDICAL INTERVENTIONS TO LIMIT THE SPREAD OF DISEASE**

Non-medical 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 short incubation period of the illness, the early peak infectivity of the illness (peak shedding of virus occurs in the first 24 – 72 hours of illness), the ability of persons with asymptomatic infection to transmit the virus, and the possibility that early symptoms among persons infected with a novel virus strain may be non-specific, 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. A summary of measures to limit the spread of disease is included in the appendices (**Tool 20**). Table 1 presents possible community-wide measures based on level of novel influenza activity and risk of human transmission. The tables are adapted from federal guidance: HHS Pandemic Influenza Plan. U.S. Department of Health and Human Services, November 2005.

<b>Table 1. Possible community-wide measures based on level of novel influenza activity and risk of human transmission.</b>		
<b>Level of Influenza Activity</b>	<b>Public Health Department Response</b>	<b>Rationale</b>
<p>WHO Pandemic Phases 1-2; No novel influenza strains of public health concern in global circulation in humans.</p> <p><b>Current status as of March 2006.</b></p>	Preparedness planning	Use recommended response actions for interpandemic influenza prevention and control
<p>WHO Pandemic Phases 3-4; Limited novel influenza virus transmission abroad; all local cases (e.g. in CA or US) are either imported or have clear epidemiologic links to other cases</p>	Isolation of case and quarantine of close contacts	Although measures directed at individuals may have limited impact in preventing the transmission of pandemic influenza, they may have great effectiveness with a less efficiently transmitted virus and may slow disease spread.
<p>WHO Pandemic Phase 5; Limited novel influenza virus transmission in the area (e.g. within CA or the US), with either a small number of cases without clear epidemiologic links to other cases or with increased occurrence of influenza among their close contacts</p>	<p>Isolation of case and quarantine of close contacts</p> <p>Consider institution of select focused community-based measures if there are cases in Santa Clara County or surrounding area, including school and daycare closure, work from home policies.</p>	Same as above. In addition, if there were cases in Santa Clara County, regardless of whether transmission was efficient, the department would want to be very aggressive about implementing control measures targeted at likely amplification sites: daycares and schools.

<b>Table 1, Continued. Possible community-wide measures based on level of novel influenza activity and risk of human transmission.</b>		
<b>Level of Influenza Activity</b>	<b>Public Health Dept Response</b>	<b>Rationale</b>
WHO Pandemic Phase 6; Sustained novel influenza virus transmission in CA, with a large number of cases without clear epidemiologic links to other cases; control measures aimed at individuals and groups appear effective	Focused measures to increase social distance; consider community-based measures.	Selective use of quarantine (focused measures) early in a pandemic when the scope of the outbreak is focal and limited may slow the geographic spread and buy time for vaccine development
WHO Pandemic Phase 6; Sustained novel influenza virus transmission in CA, with a large number of cases in persons without an identifiable epidemiologic link at the time of initial evaluation; individual control measures are believed to be ineffective	Community-level measures to increase social distance; consider “snow days” <sup>42</sup>	When disease transmission is occurring in communities around the US, community-level measures and emphasizing what individuals can do to reduce their risk of infection may be more effective disease control tools
WHO Pandemic Phase 6 (between waves or pandemic subsiding); Decreases in the number of new cases, unlinked (or “unexpected”) cases, and generations of transmission	Quarantine of contacts	
WHO Post Pandemic Period; Transmission has been controlled or eliminated, no new cases	Active monitoring in high-risk populations; continue 2-3 incubation periods after control or elimination of transmission	

There are major parameters to consider when identifying threshold determinants for decisions about community control measures. These include: (1) case and contacts, (2) public health

<sup>42</sup> “Snow Days” refers to a measure in which everyone is asked to stay home. Snow days may be instituted for an initial 10-day period, with final decisions on duration based on an epidemiologic and social assessment of the situation (p. S8-12, HHS Pandemic Influenza Plan).

resources, and (3) community cooperation, mobility and compliance. Table 2 presents data elements that will be studied to make decisions about when to use community containment measures. Due to the current lack of knowledge about the characteristics of a potential pandemic influenza virus, we are not able to predetermine threshold points that would trigger a specific decision. As information about the virus' transmission becomes known, we will use the data outlined below to make decisions about appropriate disease control measures.

<b>Parameter</b>	<b>Data Element</b>
Case and Contacts	Number of cases (absolute or estimated) Age of cases Location of cases Estimated number of work, school, daycare or other social contacts per case Rate of incident cases Number of hospitalized cases Morbidity Number and percentage of cases with no identified epidemiologic link Number of cases occurring among contacts Number of cases under surveillance and/or quarantine
Public health resources	Investigator to case and contact ratios Number of contacts under active surveillance Number of contacts under quarantine Ability to rapidly trace contacts (#untraced/interviewed contacts) Ability to implement and monitor quarantine (staff member to contact ratio) Ability to provide essential services
Community cooperation, mobility and compliance	Degree of compliance with voluntary individual isolation Degree of compliance with active surveillance and voluntary individual quarantine Degree of movement out of the community Degree of compliance with community-containment measures

### **Isolation and Quarantine**

During a flu pandemic, 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 and very early on in a pandemic. 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.<sup>43</sup> Isolation will slow, but not stop the spread of influenza, as transmission can occur prior to the onset of symptoms, and in persons who have mild or asymptomatic infection. 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

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<sup>43</sup> 17 CCR § 2520

manner as to present effective contact with those not so exposed.<sup>44</sup> Quarantine measures will be limited in use and may only be used early on or very late in the pandemic when cases are limited, or in unique situations such as potential exposure during flight travel. The SCCPHD Emergency Operations Plan includes an Isolation and Quarantine Plan (Volume 2, Annex F) which will be activated during a pandemic period, portions of which are included below.

### **Alert Period (Phases 3-5)**

1. SCCPHD assigns and trains the Isolation/Quarantine Group<sup>45</sup> within the DEOC Operations Section, Health Branch.
2. SCCPHD trains the Crisis Disease Control Team<sup>46</sup> and the Community-based Teams<sup>47</sup> (EOP Volume 2, Section 2.0—Disease Outbreak Investigation) to give orders of home isolation, monitor home isolation orders and check for signs and symptoms of influenza in household contacts.
3. SCCPHD identifies alternative care sites (Influenza Care Centers) for isolation of individuals who have no substantial healthcare requirements and/or persons for whom home isolation is indicated but who do not have access to an appropriate home setting, such as travelers and homeless populations. Refer to **Module III – Healthcare, Influenza Care Centers** for identified facilities that may be used for community-based isolation.
4. SCCPHD 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 individuals in home isolation.
5. SCCPHD develops a database structure to be used for collecting and monitoring individuals in isolation for pandemic influenza.

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<sup>44</sup> *ibid*

<sup>45</sup> The Isolation/Quarantine Group is identified in the Santa Clara County Public Health Department Emergency Operations Plan, Volume 2-Annex F- Isolation and Quarantine.

<sup>46</sup> The Crisis Disease Control Team (CDCT) is described in the Santa Clara County Public Health Department Emergency Operations Plan, Volume 2-Health Operations. The CDCT is staffed by an Assistant Health Officer, 2 Public Health Nurse Epidemiologists, a Laboratory Director (on-call to assist), and a Public Information Officer (on-call to assist). For further information about the CDCT see Volume 2, pages 10-12.

<sup>47</sup> The Community-based Teams are described in the Santa Clara County Public Health Department Emergency Operations Plan, Volume 2-Health Operations. Community-based Teams are assigned to conduct outbreak investigation in the community and provide public health assistance at community sites. For further information about Community-based teams, see Volume 2 pages 12-13.

6. SCCPHD 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 and the earliest phase of the pandemic (particularly before sustained transmission the local area), it may be feasible; in such cases, the following procedural checklist will be used.
  - a. Determine likelihood that the suspected case is due to a novel influenza strain (based on symptoms, travel history, laboratory results).
  - b. Determine likelihood that the causative virus is transmitted from person-to-person with a moderate or high efficiency.
  - c. Determine if feasible 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 on each contact, including relationship to the case-patient; nature and time of exposure; whether the contact was vaccinated or on antiviral prophylaxis; underlying medical conditions; number of contacts that become ill; number of days between onset of symptoms and reporting to health officials.
7. Health Department Official monitors contacts in quarantine at least once a day—by phone or in person—to assess symptoms and address needs.
8. Quarantine is lifted when exposed contact has remained without signs or symptoms of disease for a complete incubation period (4 or 5 days—this may be adjusted as more is known about the virus).

### ***Pandemic Period (Phase 6)***

During the early pandemic period, individuals who are given physician or Health Officer orders 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 feasible to monitor individuals who are isolated in their homes, requiring a greater reliance on individual responsibility and neighborhood-based support systems. As case volume recedes, SCCPHD



may resume monitoring individuals who are isolated. 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. See Module I for a description of legal actions related to issuing Health Officer Orders.
2. Physician instructs patient (per order of the Health Officer) to isolation (hospital, Influenza Care Center or home).
3. SCCPHD activates the Crisis Disease Control Team (CDCT) to:
  - a. Assist the Health Officer to prepare alerts and health orders for isolation/quarantine and social distancing measures.
  - b. Activate Data Management and Epidemiology Team<sup>48</sup> to build a database of isolated patients in hospitals, at home, or at alternative care sites (Influenza Care Centers). Electronic (email) and written fax reporting is established to identify patients. This will likely be feasible only during the initial stages of the pandemic and final phases when cases are limited (See Module II – Surveillance).
  - c. Physicians may be instructed to submit case reports by fax to the Public Health Department on each patient ordered to home isolation.
  - d. Hospitals may be instructed to submit case reports by fax to the Public Health Department 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. See **Module II— Surveillance**.
  - e. Influenza Care Centers (ICC) may be instructed to submit case reports by fax to the Public Health Department on each patient isolated within the ICC. As the pandemic becomes more widespread, submission of case reports may transition to aggregate reporting versus individual patient reporting. See **Module II— Surveillance**.

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<sup>48</sup> The Data Management and Epidemiology Team is described in the Santa Clara County Public Health Department Emergency Operations Plan, Volume 2-Health Operations. The Data Management/EPI team assists the CDCT to develop and refine a hypothesis and case definitions, determine data collection elements, design questionnaires, and manage outbreak investigation data. The team is staffed by epidemiologists and data entry clerks.

- f. Instructions will be given out over the media to encourage reporting by the health care community.
4. When the number of cases in the county exceeds the capacity of the SCCPHD staff and volunteer resources to identify, monitor and provide support (through EOC Logistics) to 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 only.
5. Persons who meet 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. A checklist for patients in home isolation is included in the appendices (**Tool 21**).
6. Patient's physician or health department official determines if patient's medical condition meets criteria for home isolation. See Module V for home isolation triage criteria.
7. Patient's physician or health department official conducts evaluation for feasibility of home isolation. See Module V for home isolation triage criteria.
8. If patient meets criteria for home isolation but does not have an adequate home, the patient may be isolated in an alternative care site (Influenza Care Center).
9. DEOC implements procedures for delivering medical care, food, and other services to persons in home isolation or quarantine.
10. Operational Area EOC Logistics Section is activated to provide support services to the home isolated or quarantined population, including food and water, PPE and hygiene supplies, and vehicles for patient transport (in addition to ambulances, e.g., buses, vans, cars).
11. During the very late phases of a pandemic alert or early phases of a pandemic, Community-Based Teams (described in Disease Outbreak Investigation, Section 2.0, EOP Volume 2) will assist in identifying and responding to needs of isolated patients in homes.
12. When the number of cases in the county exceeds the capacity of the SCCPHD Community-Based Teams to provide support (through EOC Logistics) to all individuals who are home isolated, implement neighborhood support mechanisms, and neighborhood supply distribution sites. The media will be used to encourage

neighborhood support and to provide instructions on how to access supplies through neighborhood distribution sites.

13. The DEOC will implement procedures for triage and transport for individuals in isolation. See Module V for triage criteria. Refer to Infection Control Section, above, for infection control guidelines for transport of individuals with pandemic influenza.
14. The two levels of triage and transport for individuals in isolation include:
  - a. Preliminary transport of individuals to alternative care sites (as determined necessary due to inadequate home); transport of individuals back to homes after isolation in alternative care sites is lifted.
  - b. Triage and transport of individuals in isolation to hospital or other health care facility, as determined necessary by a public health official or designee.
15. Once need for transport is determined, the County EOC Logistics Section, Transportation Branch, will be responsible for coordinating such transportation. This includes transportation for:
  - a. Ill patients from home isolation to the hospital for treatment
  - b. New cases to hospital for treatment.

### **Social Distancing**

Social distancing measures are applied to specific groups and designed to reduce interactions and thereby transmission risk within the group. These are non-medical measures that may occur at two levels: (1) measures that affect groups of exposed at-risk individuals, and (2) measures that affect communities. When focused, the intervention is applied to specific groups or persons identified in specific sites or buildings, most but not necessarily all of whom are risk of exposure to influenza. Examples include quarantine of groups of exposed persons in a defined setting (e.g., school, workplace, airplane, etc.); cancellation of public events; closure of office buildings, schools, and/or shopping malls; and closure of public transportation such as bus lines. When community-wide measures are used, the measures affect the entire community, including both exposed and non-exposed persons. Examples include snow days, self-shielding, and widespread community quarantine (*cordon sanitaire*).

### ***Alert Period (Phases 3-5)***

1. SCCPHD ensures that legal authorities and procedures are in place to implement the various levels of movement restrictions necessary (Refer to Module I – Legal Authorities).
2. SCCPHD informs key partners (news media and communication outlets, law enforcement, schools, and community groups) about the potential for focused measures and community-wide measures to increase social distance during an influenza pandemic.

### ***Pandemic Period (Phase 6)***

Depending on where transmission is occurring, during the latest phase of the Alert period and the early Pandemic period, the Health Officer and Public Health DEOC will assess conditions and determine the need for social distancing measures. The level of restriction on movement (focused measures, community-wide measures, or widespread community quarantine) will require weighing the benefits and challenges of each option within the context of the status of the pandemic. Definitions and considerations for social distancing measures are included in the appendices (**Tool 20**). See Table 1 above for possible social distancing measures based on level of novel influenza activity and risk of human transmission.

1. Health Officer determines the need for social distancing measures and level of restriction on movement necessary to reduce the spread of disease transmission.
2. As indicated, Health Officer directs focused measures to increase social distance, such actions include quarantine of groups of exposed persons; cancellation of public events; closure of office buildings, schools, and/or shopping malls; and closure of public transportation such as bus lines.
3. As indicated, Health Officer directs community-wide measures to reduce personal interactions within a targeted geographical region (referred to as “snow days”).
4. As indicated, Health Officer directs widespread quarantine (cordon sanitaire).
5. As necessary, Health Officer obtains legal order for social distancing measures. Refer to **Module 1 – Legal Authorities**.
6. Public Information Officer implements systems of communications for delivering relevant messages. Refer to Module VI – Risk Communication.
7. Law enforcement assists with enforcement of actions as necessary and available.

## **Travel Restrictions**

If an 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 persons infected with influenza will still be in the incubation period, be shedding virus asymptotically or have mild symptoms, it will not be possible to identify and isolate all arriving infected or ill passengers and quarantine fellow passengers.

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 ill 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, therefore, federal authorities might modify or discontinue this strategy. Voluntary limitations on travel during a pandemic alert and pandemic will also decrease the amount of disease spread. 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.<sup>49</sup>

### ***Alert Period (Phases 3-4)***

1. SCCPHD 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. SCCPHD participates in exercises and drills at ports of entry.
3. SCCPHD and response partners train health care workers and emergency responders in the use of Personal Protective Equipment.
4. SCCPHD prepares quarantine protocols for use at San Jose International Airport:

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<sup>49</sup> HHS Pandemic Influenza Plan. U.S. Department of Health and Human Services, November 2005.p. S9-3

- a. Temporary (a few days) until results of diagnostic tests become available
- b. Longer term (up to 10 days) if a diagnoses of pandemic influenza is confirmed.

***Alert Period (Phase 5)***

1. Manage ill passengers arriving at San Jose International Airport (SJC)
  - a. Crew report ill passenger with a suspected case of novel influenza to SJC.
  - b. SJC officials notify Quarantine station, DHS and SCCPHD.
  - c. Health Officer requests information on the ill passenger's symptoms and travel and exposure history to make an initial assessment if the illness meets the current clinical and epidemiologic criteria for avian influenza or is suspicious for a novel influenza strain.
  - d. Health Officer determines if a SCCPHD official and/or quarantine officer should meet the airplane to further evaluate the ill traveler.
  - e. SCCPHD official provides crew with guidance on 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. SCCPHD official meets the airplane (if indicated) and performs initial medical evaluation of the ill traveler; the passengers and crew should be informed of the situation and not allowed to disembark until evaluation is complete.
  - g. If ill passenger meets the clinical and epidemiologic criteria, the patient is sent by ambulance to a hospital, using appropriate infection control procedures for transit and patient isolation.
2. Manage travel contacts
  - a. SCCPHD consults with DHS and CDC (domestic flight) or Quarantine Station (international flight) to decide how to manage an ill person's travel contacts on a case-by-case basis, taking into consideration the following factors:
    - i. Likelihood that suspected case is due to a novel influenza strain
    - ii. Likelihood that the causative virus is transmitted from person to person with a moderate or high efficiency (as in later phases of the Alert period)

- iii. Feasibility of tracing and monitoring travel contacts, as well as the patient's family members, workmates, schoolmates and healthcare providers
  - b. Management of contacts might include:
    - i. Passive or active monitoring without restrictions
    - ii. Quarantine at home or in designated facility, and/or
    - iii. Antiviral prophylaxis or treatment
    - iv. Vaccination as it becomes available
  - c. Retrospectively identified cases (post 72 hours)
    - i. During early phases of Alert period, SCCPHD 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.
    - ii. If home quarantine is not possible, transport persons to an alternative care site (Influenza Care Center) (See Module III, Section—Influenza Care Centers) until the diagnosis of the ill passenger is confirmed or disproved.
    - iii. Each quarantined passenger should receive a preliminary medical assessment and interview to ascertain their travel and exposure histories.
    - iv. Medical follow-up and travel assistance should be provided to all quarantined persons when the quarantine period is over.
- 3. Develop and/or issue travel health alert notices, travel contact notices, and close contact notices
  - a. SCCPHD will distribute CDC "Travel Health Precautions" that describe steps that can be taken to reduce the risk of infection (e.g., avoiding travel to high-risk settings and communities where transmission is occurring).
  - b. SCCPHD will distribute CDC "Travel Health Warnings" that recommend postponement of nonessential travel.
  - c. During later stages of a pandemic when there is extensive and sustained transmission in other countries, SCCPHD will distribute CDC "Travel Health Alert

Notices” to passengers arriving from affected countries (i.e., countries for which health warnings have been issued).

- d. Airports post “Travel Health Alert Notices.”
4. If the level of influenza transmission in the U.S. presents a high risk for exportation of disease, SCCPHD will work with HHS and DHS 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 Santa Clara County region is affected.
    - c. Implement pre-departure screening (e.g., temperature screening or visual screening) of outbound travelers.

#### **Enforcement of Isolation, Quarantine, Social Distancing and Travel Restrictions**

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

#### ***Alert Period (Phases 3-4)***

To prepare law enforcement to respond to a pandemic, SCCPHD will:

1. Inform law enforcement about health officer authority to order isolation, quarantine and social distancing measures.
2. Establish mechanisms of communication between Health Officer and law enforcement.
3. Instruct law enforcement on PPE should they be called upon to enforce isolation, quarantine, or social distancing measures.

#### ***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 to provide security at private and public hospitals.
3. Provide perimeter security at isolation/quarantine alternative care sites.



4. Detain individuals not in compliance with a Health Officer Order (misdemeanor).
5. Provide security (escort) for physicians, EMS personnel, ambulance personnel, other care providers or support personnel, as required.
6. Conduct area evacuations and secure evacuated areas.
7. Evacuate and secure public assembly venues when social distancing is required by Health Officer Order or other declaration.

## **SPECIAL POPULATIONS CONSIDERATIONS**

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

1. Infection control for individuals who are *medically compromised* and are at home or in the Influenza Care Center
2. Infection control for very young children (<2 years of age) and frail elderly who are at home or in the Influenza Care Center
3. Isolation for people who have pandemic influenza and are homeless; consider placement in an Influenza Care Center
4. Multilingual information on home isolation procedure.
5. Alternative communication modes about infection control, home isolation, and social distancing measures to people who are illiterate
6. Support for people who are homebound or geographically isolated individuals
7. Support for people with limited economic means who require isolation

Module IV – Limiting the Spread of Disease Tools

Tool 20 – Disease Control Measures: definitions, examples and considerations

Tool 21 – Home Isolation Checklist

Tool 22 – Fact Sheet on Social Distancing to Control the Spread of Pandemic Influenza (to be developed)

DRAFT

# Pandemic Influenza

Preparedness & Response Plan

## Module V Clinical Guidelines and Disease Management

Module V



**Public Health Department**  
Santa Clara Valley Health & Hospital System



DRAFT

# Critical Capacity Module V

## Clinical Guidelines and Disease Management

### INTRODUCTION

The ability to provide effective treatment and disease management for individuals who become infected with pandemic influenza is a critical capacity required by all health care providers within Santa Clara County. Module V describes clinical guidelines for the screening, assessment, and management of patients with suspected novel<sup>50</sup> influenza during the Alert period, and for patients with suspected pandemic<sup>51</sup> influenza during the Pandemic period. The module also describes plans for the distribution and use of antiviral drugs and vaccines for treatment and prophylaxis.

This module is intended to provide community-wide standardized procedures by which healthcare providers may (1) efficiently diagnose cases of novel and pandemic influenza infection, (2) evaluate and manage patients with novel and pandemic influenza infection, (2) triage cases to appropriate levels of care, (3) determine when antiviral treatment can and should be initiated, and (4) determine when and how to administer prophylaxis in the form of antiviral agents and vaccinations. In addition, the module describes actions that must be performed by the local Public Health Department in order to support healthcare providers in these activities.

Actions recommended to contain the spread of infection to others, once a case has been identified, are described in Module IV “Limiting the Spread of Disease”.

The clinical guidelines presented in Module V constitute a practical application, for Santa Clara County, of existing guidance from the Centers for Disease Control and Prevention (CDC) and the US Department of Health and Human Services (HHS). As such, they are consistent with CDC and HHS guidance, but they incorporate additional considerations from medical and public health literature as well as practical considerations specific to Santa Clara County. Module V

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<sup>50</sup> In this document, the term “novel” influenza virus refers to new strains of influenza to which the human population is immunologically naïve. These may include avian or animal influenza strains that can infect humans, as well as new or re-emergent human influenza viruses that cause cases or clusters of human disease.

<sup>51</sup> In this document, the term “pandemic” influenza virus refers to a novel influenza strain that has demonstrated efficient transmission from human to human, and that has caused or is causing widespread outbreaks of disease in the US or elsewhere in the world.

was developed by the Santa Clara County Public Health Department (SCCPHD) in collaboration with physicians practicing in our community.

As used in this document, the term “guideline” means a recommendation, while a “directive” or an “order” from the Health Officer requires compliance with a specified course of action. Directives and orders are issued by the Santa Clara County Health Officer only when necessary to protect the health and safety of the community. Module I of the Pandemic Influenza Plan discusses legal authorities and related issues in detail.

These clinical guidelines are current as of March 2006, and will be subject to change as knowledge of novel and pandemic influenza virus infections is gleaned from experience.

### **Desired Outcomes**

1. Community-wide standardized procedures for diagnosis, evaluation, and management of patients with suspected novel influenza and for patients with pandemic influenza, to be utilized by Santa Clara County physicians.
2. Effective patient triage and patient education.

## **PUBLIC HEALTH DEPARTMENT ACTIONS**

### **Education for Healthcare Providers**

During both the alert and pandemic periods, the SCCPHD will provide community-wide leadership in educating healthcare providers about novel and pandemic influenza infections, and about their role in addressing the needs of affected patients and communities. Necessary components of clinician education will include:

1. The clinical case definition of novel influenza infection in the alert period
2. Evolving clinical case definitions and epidemiologic information as the pandemic progresses
3. Reporting requirements, which may change from time to time as the pandemic unfolds

4. Infection control standards for the home, outpatient clinic, and inpatient hospital settings
5. Real-time updates regarding local clusters of disease in the early stages of the pandemic
6. Clinical information regarding the evaluation and anticipated course of novel and pandemic influenza infections, based upon available information from CDC and WHO
7. Information regarding availability and appropriate use of antiviral agents
8. Information regarding availability and recommended use of strain-specific influenza vaccine
9. Any recommendations for alterations in standards of care, which may be necessitated as available healthcare resources become overwhelmed

The SCCPHD issued a Physician Alert on December 9, 2005, which constitutes the first communication of this type with the healthcare provider community ([Tool 10](#)). Similar Alerts will be issued, when deemed necessary by the Health Officer, as novel influenza infections appear and the pandemic progresses. The SCCPHD website will be frequently updated with current information relevant to clinical management of patients with novel or pandemic influenza infections.

### **Laboratory testing**

Rapid diagnostic testing for influenza A infections is readily available to most clinicians in Santa Clara County, both in the outpatient clinic and inpatient hospital setting. However, these rapid tests are of limited sensitivity and specificity, and a negative rapid influenza test from a suspect case does not rule out the possibility of novel influenza virus infection. Attempts to isolate virus from these cases must only be conducted in a Biosafety Level 3 (BSL 3) enhanced laboratory (the Santa Clara County Public Health Laboratory or the State Viral and Rickettsial Disease Laboratory).

Confirmatory testing and subtyping of novel influenza strains will likely be of greatest benefit early in the course of the pandemic, when identification of novel influenza infections and clusters of infections might facilitate the use of isolation, quarantine, social distancing and other measures to control the spread of disease. Once the arrival of a pandemic strain in Santa Clara County has been documented and its antiviral drug resistance patterns have been characterized, routine laboratory confirmation of infections meeting the clinical case definition

will no longer be necessary. Short term increases in testing of hospitalized patients will need to occur at the beginning of any new waves of disease during the pandemic to track any evolution or changes in the virus.

The SCCPHD will provide timely instructions to clinicians, via the Physician Alert system, regarding:

1. When to and when not to pursue confirmatory testing
2. How to collect appropriate clinical specimens and submit them to the Santa Clara County Public Health Laboratory (SCCPHL).

The SCCPHL will:

1. Provide instructions to laboratorians regarding collection, packaging and transport of specimens, by means of Laboratory Community Updates distributed by email, fax, and hard copy.
2. Perform rapid molecular testing (RT-PCR).
3. Forward specimens to the State Virus Laboratory for viral cultures to confirm novel influenza virus infections.

### **Antiviral Drug Distribution and Use**

The SCCPHD plan for procurement and distribution of influenza antiviral medications makes the following assumptions:

1. In an influenza pandemic, the demand for influenza antiviral medications will exceed the supply.
2. Appropriate use of influenza antiviral medications may reduce morbidity and mortality and diminish the overwhelming demands that will be placed on the healthcare system during a pandemic.
3. In the initial phases of the pandemic, the SCCPHD may use influenza antiviral medications for prophylaxis of close contacts to cases, in an effort to contain small disease clusters. However, as the pandemic progresses, this strategy will become less useful.
4. Local stockpiles of influenza antiviral medications will be the first resource tapped for these medications during the pandemic. Some influenza antiviral medications may



become available from the Strategic National Stockpile (SNS) during the pandemic, but the supply of antivirals from the SNS will still not be adequate to meet the demand.

5. Therefore, in an effort to ensure that influenza antiviral medications are available to individuals experiencing or likely to experience serious complications from influenza infection, it will be necessary to control the supply and use of influenza antiviral medications by means of Directives from the Health Officer.
6. During the pandemic, the SCCPHD will monitor epidemiological information generated by the CDC, WHO and the CDHS regarding the patterns of antiviral susceptibility and resistance exhibited by the pandemic influenza strain, and will modify recommendations for use of antivirals accordingly.

### **Procurement and Distribution of Antivirals for the Community**

During the alert period, the SCCPHD will make efforts to create a local stockpile of influenza antiviral medications. These efforts will include;

1. Estimating the quantities of antiviral drugs that will be needed for treatment and prophylaxis or priority groups
2. Purchasing stocks of oseltamivir to be held in the public health pharmacy
3. Encouraging healthcare facilities to create institutional stockpiles.

Considering the numbers of individuals in priority groups as defined in Plans A and B (see subheading “*Prioritization of access to antiviral medications*” below), over the course of the pandemic as many as \*\*\* courses of antivirals will be needed for treatment of individuals in Santa Clara County, and perhaps as many as \*\*\* courses of antivirals may be needed for prophylaxis.

Limited availability of antivirals for local purchase is likely to restrict the department’s ability to create an adequate local stockpile; this limited stockpile will be quickly exhausted during a pandemic. The SCCPHD will therefore need to request influenza antiviral medications **early in the pandemic** from the Strategic National Stockpile. The procedure for making this request is described in the Santa Clara County SNS Plan (available at [www.sccphd.org](http://www.sccphd.org)). However, the SCCPHD recognizes that, because the entire country will be affected by the pandemic, Santa Clara County’s request for antiviral medications from the SNS will compete with demands from

other jurisdictions nationwide. This competition will limit the supply of influenza antiviral medications Santa Clara County can expect to receive from the SNS.

Influenza antiviral medications intended for **treatment** of the ill, as well as **prophylaxis** of (1) household contacts at high risk for serious complications from infection and (2) staff and patients at institutions experiencing outbreaks, will be distributed, as supplies allow, directly to hospitals, clinics and other healthcare providers. The SCCPHD will work to ensure fair and equitable distribution. If supplies are adequate to support priority prophylaxis for other healthcare providers, first responders and workers in industry constituting critical infrastructure, antiviral medications may be distributed for this purpose via the priority prophylaxis POD at 976 Lenzen, as described in the Mass Prophylaxis Plan. Because the supply of influenza antiviral medications will likely be quite limited, and the use of these medications for prophylaxis will be targeted only to priority groups, the SCCPHD does NOT anticipate broader activation of the Mass Prophylaxis Plan will be required for their distribution.

### **Development and Communication of Local Directives for the Use Of Influenza Antiviral Medications**

During the pandemic, the Health Officer will issue clinical directives for the use of limited supplies of influenza antiviral medications in Santa Clara County. Whenever possible, these directives will be developed in collaboration with state and federal public health officials and released in conjunction with state and federal guidelines.

In developing and periodically updating these directives, the Health Officer will consider:

1. Any guidance issued by the CDC, the WHO, and CDHS
2. Evolving information on the efficacy of antiviral medications for treatment and prophylaxis of the pandemic strain
3. Evolving information on those individuals who are most likely to experience serious complications from infection with the pandemic influenza strain
4. Changes in the supply of influenza antivirals
5. Availability of strain-specific influenza vaccine.

Directives will be communicated to healthcare providers by means of Physician Alerts sent by blast fax and posted on the SCCPHD website.

## **Access to Antiviral Medications**

During an influenza pandemic, the primary goals of antiviral use must be to treat those at highest risk of severe illness and death, and to preserve the delivery of healthcare and other essential critical services through early treatment and limited prophylaxis. Once a vaccine becomes available, antiviral drugs may be used primarily to protect persons who may be expected to have an inadequate vaccine response and those with contraindications to vaccination. Bearing these goals in mind, the attached Plans for the Use of Influenza Antiviral Medications are intended to guide the Health Officer in developing directives for the use of these medications (Tool 23). Decisions regarding whether to prioritize use of antivirals for treatment over prophylaxis, or for prophylaxis over treatment, will be determined, to the extent possible, on the basis of demonstrated efficacy of the antiviral agents against novel and pandemic influenza strains.

Plan A presumes that strain-specific vaccine is not available and should therefore be used in the early weeks or months of the pandemic. Plan B should be utilized once strain-specific influenza vaccine becomes available. These prioritization plans attempt to ensure that the limited supply of antivirals is made available (1) to those actually experiencing or likely to experience complications of influenza infection, (2) to those most likely, because of their work setting, to acquire influenza infection and spread it to others, and (3) to those employed in entities constituting critical infrastructure, whose continued operation is crucial to society's ability to function and survive the pandemic.

## **Data Collection on Antiviral Use**

During the pandemic, as resources permit, the SCCPHD will collaborate with federal and state Public Health authorities in order to collect data on

1. Antiviral medication use
2. Antiviral medication-related adverse events
3. Antiviral medication resistance

The SCCPHD will also assist federal and state authorities in monitoring antiviral drug distribution, to assess whether these medications are being effectively targeted to priority groups and whether distribution is equitable within those groups.

### **Unlicensed Antiviral Drugs Used as Investigational New Drugs**

It is possible that unlicensed influenza antiviral medications might be distributed under the FDA's Investigational New Drug (IND) provisions, with the approval of a national or "central" Institutional Review Board (IRB). If this happens, the SCCPHD will work with federal and state officials to make these unlicensed medications available for use by healthcare providers in Santa Clara County.

### **Vaccine distribution and use**

At some point during the influenza pandemic, it is likely that strain-specific vaccine will become available. If the pandemic strain corresponds closely to the H5N1 avian flu strain for which vaccine development is already underway, a limited supply of effective vaccine may be available relatively early in the course of the pandemic. More likely, development of a strain-specific vaccine will lag for 4-6 months behind the first wave of the pandemic, and vaccine will be released to Santa Clara County in small allotments over a period of weeks to months. In either situation – whether stockpiled vaccine is being released early in the pandemic or strain-specific vaccine is being released several months into the pandemic - it will be necessary for the Health Officer to control the vaccine supply to Santa Clara County, in order to ensure that vaccine is utilized according to a prioritization plan designed to target:

1. Those at highest risk for serious clinical complications from pandemic influenza infection
2. Those most likely to transmit pandemic influenza to others
3. Those workers engaged in activities vital to the maintenance of critical infrastructure.

In addition to designating the groups targeted for vaccination, the SCCPHD will perform the following actions:

#### ***Alert Period***

1. Work to enhance coverage with vaccinations for seasonal influenza in groups at risk for severe influenza and in healthcare workers.
2. Work to enhance coverage with vaccines against *Streptococcus pneumoniae* among those for whom these vaccines are recommended.
3. Estimate the size of priority groups to be vaccinated.
4. Develop a plan for identification of persons in priority groups at vaccination clinics.

5. Refine plans for procurement and distribution of vaccine.
6. Develop a procedure to inform vaccine recipients about the need for a second dose, to track recipients and possibly to call them back for the second dose when vaccine supplies allow.
7. Develop tools to monitor vaccine usage and to collect data about vaccine recipients (Tool 24).

### ***Pandemic Period***

1. Review national recommendations regarding pandemic influenza vaccination and develop modifications or refinements to priority groups, as appropriate.
2. Communicate the rationale for prioritization of selected groups for vaccination clearly to healthcare providers and to the general public.
3. Rapidly provide training in vaccination and data collection for public health staff and other partners responsible for vaccinating priority groups.
4. Monitor vaccine supplies, distribution and use.
5. Track recipients of influenza vaccine using the Immunization Registry, and calling back vaccine recipients for a second dose, as feasible.
6. Monitor and investigate adverse events following vaccination, as feasible.
7. After priority groups have been vaccinated and additional stocks of vaccine become available, work to ensure fair, orderly, and equitable distribution of vaccine to the rest of the population.

### **Procurement of Influenza Vaccines for the Community**

The Department of Health and Human Services (HHS) has indicated that, if vaccine against the pandemic subtype or partially cross-protective to the circulating strain is available in federal pre-pandemic stockpiles, it may be made available to state and local jurisdictions early in the pandemic for vaccination of priority groups. If this is the case, the SCCPHD will consult with the California Department of Health Services (CDHS) and the CDC to determine the most expedient means for procuring the vaccine. If necessary, the Santa Clara County SNS plan will be activated.

According to the United States Department of Health and Human Services (HHS), pandemic influenza vaccine developed after the onset of the pandemic will be distributed to health departments and providers via private-sector vaccine distributors or directly from the manufacturers. Recent communications from the CDC, however, suggest that vaccine will be shipped directly from the manufacturer to the states. If this is correct, the SCCPHD will order vaccine directly from CDHS and will actively monitor vaccine supply and distribution within the county. If necessary, the Santa Clara County SNS plan will be activated.

### **Distribution of Influenza Vaccines**

Once influenza vaccine specific to the pandemic influenza strain becomes available, the demand for this vaccine will be very high. Santa Clara County will likely receive relatively small allotments of vaccine over a period of weeks to months, rather than receiving a single or several large shipments. Routes of distribution of vaccine will be determined by the Health Officer at the time, considering several factors including:

1. The amount of vaccine available
2. The identity and location of priority groups to be targeted for vaccination
3. The availability of private and public entities to stage influenza vaccine clinics, as well as their ability to handle the necessary security needs and to follow health officer directives
4. The degree to which potential drop-off sites may already be overwhelmed by the demands of pandemic response.

If relatively small shipments of vaccine are coming into the county, the most expedient distribution would likely be accomplished by tailoring the distribution plan to the identity of the groups targeted for vaccination. For example, if persons with high-risk medical conditions are prioritized for vaccination, distribution could be accomplished via drop-off to hospitals and large clinics, with dedicated flu vaccine clinics to be activated as necessary. If workers engaged in activities vital to the maintenance of critical infrastructure are being targeted, distribution would likely be accomplished most expeditiously by setting up vaccination clinics at their places of employment.

If large shipments of vaccine are anticipated, the Mass Prophylaxis Plan (currently under development) should be activated. Activation of the plan would call for simultaneous utilization of (1) drop-off sites, as described in the Mass Prophylaxis Plan, (2) the Priority Prophylaxis

Point of Distribution (POD) at 976 Lenzen, and (3) PODs distributed throughout each of the 6 regions described in the Plan. When the Health Officer determines that fire and law enforcement personnel are to be vaccinated, fire stations would be activated throughout the county as priority flu vaccination sites for these personnel, to the degree that staffing with skilled vaccinators can be accomplished at these sites.

PODs capable of providing rapid through-put while minimizing congregation of individuals awaiting vaccination would be preferred. Such sites include drive-through sites and sites with segmented operations where screening of individuals for signs of illness may be accomplished prior to shuttling those individuals to a POD. Sites with these characteristics are described in the Mass Prophylaxis Plan.

### **Development and Communication of Local Directives for the Use of Strain-Specific Influenza Vaccine**

During the pandemic, directives for the use of influenza vaccine in Santa Clara County will be developed by the Health Officer in consultation with CDHS and the CDC. These directives will be communicated to healthcare providers via the Physician Alert blast fax system, and they will be posted on the department's website.

### **Access to Strain-Specific Influenza Vaccine**

The attached Plan for Vaccination with Strain-specific Influenza Vaccine during an Influenza Pandemic (Tool 25) will be utilized by the Health Officer in developing directives for the use of influenza vaccine during the pandemic. This plan assumes that persons at highest risk for serious complications of pandemic influenza are the same as those persons considered at highest risk for serious complications of seasonal influenza, as defined by CDC's Advisory Committee on Immunization Practices. As clinical and epidemiological knowledge about the pandemic strain becomes available, it may be found that different groups of individuals are at highest risk for serious complications from pandemic influenza; in that case it will become necessary to update this prioritization plan.

This Plan focuses on populations for priority vaccination into three groups: (1) those at highest risk for serious complications from influenza, (2) those most likely to acquire and transmit the disease, thus amplifying the pandemic, and (3) those workers engaged in activities vital to the

maintenance of critical infrastructure. Estimates of the numbers of individuals in each priority group are provided, in anticipation that this information will allow the Health Officer to develop directives matching the number of available vaccines to the approximate number of individuals in priority groups.

### **Data Collection and Recording for Vaccine Distribution and Use**

As resources permit, the SCCPHD will utilize the existing Immunization (IZ) Registry to collect data tracking vaccine usage and vaccine recipients (Tool 24). This data will include, at a minimum:

1. The number of doses administered, by date, age, and state, county, or zip code of residence
2. The number of doses that represent second doses, as applicable

Guidance from the United States Department of Health and Human Services recommends that each vaccine recipient's priority group also be recorded; this data would clearly be useful in tracking pandemic response efforts. The State Immunization Branch would need to modify the existing IZ Registry system to facilitate collection of this additional data point.

Currently, approximately 48% of vaccine provider sites in Santa Clara County utilize the IZ Registry. Providers (such as Kaiser Permanente) who use a different electronic data system to track vaccine usage and vaccine recipients will be expected to utilize those data systems to collect required data, as defined by the SCCPHD, and provide periodic reports to the SCCPHD. Providers who have no electronic data system for tracking vaccine usage and vaccine recipients will be required to submit their data to the SCCPHD for entry into the IZ Registry, as resources permit.

Data on adverse reactions will be reported via the Vaccine Adverse Events Reporting System (VAERS)<sup>52</sup>. CDHS may choose to receive reports of adverse events directly; if this is the case, the SCCPHD will work with CDHS to provide these reports in a timely fashion.

### **Unlicensed Pandemic Influenza Vaccines Used as "Investigational New Drugs"**

It is possible that unlicensed vaccines against the pandemic virus strain might be distributed under the FDA's Investigational New Drug (IND) provisions, with the approval of a national or



“central” Institutional Review Board (IRB). If this happens, the SCCPHD will work with federal and state officials to make these unlicensed vaccines available for use by healthcare providers in Santa Clara County.

### **Nursing Advice and Triage By Telephone**

During the pandemic, healthcare providers are likely to be overwhelmed with patient care duties and may be unable to handle the volume of calls they receive for influenza-like illness (ILI). The SCCPHD will activate the Public Health Information Line (PHIL) to provide telephone triage and nursing advice to the general public. The Phone Triage Algorithm (to be developed (Tool 26)) will be used to provide this service and will be distributed to healthcare providers who will be encouraged to adapt it for use in their own settings.

## **GUIDELINES FOR HEALTHCARE PROVIDERS**

### **Keeping Informed**

During the Alert period and throughout an influenza pandemic, it will be critical for physicians and other healthcare providers to keep abreast of new epidemiological and clinical information regarding novel and pandemic influenza infections. Novel influenza infections may appear in any season, may produce clinical syndromes that differ significantly from the seasonal influenza to which providers are accustomed, and may disproportionately affect unexpected populations – as did the 1918 Spanish flu, which most severely affected young adults who were otherwise healthy.

The Santa Clara County Public Health Department (SCCPHD) has thus far produced two Physician Alerts regarding pandemic influenza preparedness. Refer to attached Physician Alert dated December 9, 2005 (Tool 10), which addresses the diagnosis of novel influenza infections and Physician Alert dated November 4, 2005 (Tool 27), which addresses stockpiling of antiviral medications), as well as a Laboratory Community Update (2005-4) dated December 29, 2005, which addresses avian influenza testing (Tool 12). Healthcare providers are advised to watch for additional Physician Alerts, which will be distributed as new information becomes available.

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<sup>52</sup> See: [www.vaers.hhs.gov](http://www.vaers.hhs.gov)

These alerts are distributed by blast fax and will also appear on the health department's website: [www.sccphd.org](http://www.sccphd.org). Additional helpful websites include [www.pandemicflu.gov](http://www.pandemicflu.gov), the federal government's website dedicated to pandemic influenza preparedness and response, as well as the World Health Organization's website, [www.who.int](http://www.who.int), where information about the international progress of the pandemic will be available. A listing of relevant websites is included in the appendices and will be developed into a Pocket Website Reference Tool (Tool 28).

In addition, physicians and other healthcare providers may help to prepare their patients in advance of the pandemic by providing them with copies of "Your Guide to Preparing for Pandemic Flu" (Tool 38) and "Household Flu Preparedness Checklist" (Tool 42).

### **Diagnosis of Patients With Novel or Pandemic Influenza Virus Infections**

#### ***Alert Period***

During the Alert period, astute clinicians will provide the key to early detection of novel influenza virus infections in Santa Clara County. The current novel influenza A virus of concern is avian influenza A, subtype H5N1, which has been transmitted from birds to humans in parts of Asia and the Pacific, Europe and Eurasia, and the Near East. Exposure risk for avian influenza (H5N1) is highest for persons who have had direct contact with infected poultry, or surfaces and objects contaminated by their droppings (e.g., persons exposed during slaughter, de-feathering, butchering, and preparation of poultry for cooking). Therefore, individuals who have traveled to a country with avian influenza A (H5N1) who report direct exposure to sick or dying poultry and who exhibit respiratory symptoms should be considered at highest risk. In the Alert period, the likelihood that a patient presenting with respiratory illness in Santa Clara County will be diagnosed with novel influenza A (H5N1) is low and depends upon an epidemiological link to this type of exposure. Therefore, only patients meeting both clinical and epidemiologic criteria for suspected influenza A (H5N1) should be evaluated for possible novel influenza infection.

Although the epidemiologic criteria here described for novel influenza are based on recent human cases of avian influenza A (H5N1), the process for identifying and managing cases of novel influenza A infection will be similar, regardless of the specific novel influenza strain. In the future, other novel influenza A viruses might become significantly associated with human disease and develop pandemic potential. If this occurs, this guidance will be updated.

As of March 2006, the following patients should be evaluated for possible infection with influenza A (H5N1):

Hospitalized patients with:

1. Radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established

**AND**

2. History of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza in poultry and/or humans<sup>53</sup>

**OR**

Hospitalized or ambulatory patients with:

1. Documented temperature of >38°C (>100.4°F), **AND**
2. One or more of the following: cough, sore throat, shortness of breath, **AND**
3. History of contact with poultry (e.g., visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected human case of influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

When both clinical and epidemiologic criteria for suspected influenza A (H5N1) infection have been met, healthcare providers should immediately proceed with the following actions:

1. Implement infection control precautions.
2. Report the case to the Santa Clara County Public Health Department (SCCPHD).
3. Obtain clinical specimens for novel influenza a infection and **submit them to the Santa Clara County Public Health Laboratory**, not to the state health department nor to any commercial or hospital laboratory.
4. Initiate antiviral treatment, if available.

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<sup>53</sup> For an updated listing of countries with cases of human infections, visit:

[http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

For an updated listing of countries with avian influenza in poultry and wild birds, visit the World Organization for Animal Health (OIE) webpage on Avian Influenza (type H5) in Animals [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm)

5. Triage to the appropriate level of care.
6. Evaluate alternative diagnoses.
7. Provide necessary clinical evaluation and management services, including monitoring the patient appropriately for complications.
8. Assist the SCCPHD with the identification of potentially exposed contacts including healthcare workers, as requested.

A description of each of these actions follows this section. Refer to the “Figure 1: Clinical Algorithm for Case Management - Alert period” in the appendices (Tool 29) for an outline of appropriate steps in implementing these actions.

### ***Pandemic Period***

During the Pandemic period, once circulating pandemic strains of influenza A have been established in Santa Clara County, the diagnosis of pandemic influenza will be based primarily upon clinical criteria. There will be a relatively high likelihood that any case of influenza-like illness during that time period will be pandemic influenza, so less emphasis will be placed on establishing an epidemiological risk factor. Routine laboratory diagnostic testing to confirm infection with pandemic influenza will no longer be practical or necessary, in most situations, to guide management. Reporting requirements and criteria for hospital admission will likewise be altered. Refer to the appendices (Tool 30) “Figure 2: Clinical Algorithm for Case Management – Pandemic Period” for an outline of appropriate actions during the pandemic period.

### **Infection Control**

#### ***Alert and Pandemic Periods***

Healthcare providers must implement the following measures to reduce the risk of exposure of healthcare workers and uninfected patients to novel influenza viruses in the places where health care is delivered:

1. Consistent, routine, effective infection control procedures in the office and inpatient healthcare settings
2. Prompt isolation procedures for suspected and confirmed cases of novel influenza virus infection.

During the **Alert period**, patients with confirmed infection with a novel influenza virus strain should be isolated from patients with seasonal influenza, in order to decrease the risk of co-infection and viral genetic reassortment.

Refer to **Module III—Healthcare** for a detailed discussion of appropriate infection control procedures.

### **Reporting Suspected Cases of Novel Influenza Infection**

#### ***Alert Period***

Healthcare providers should report suspected avian or novel influenza cases immediately. During normal business hours, call the Disease Prevention and Control Program at 408-885-4214; after hours and weekends call Santa Clara County Communications at 408-998-3438 and ask to speak with the Health Officer on call.

By maintaining a high index of clinical suspicion and promptly reporting cases meeting the current case definition to the Santa Clara County Public Health Department, healthcare providers will play a crucial role in early detection of cases of novel influenza infection. Early detection and prompt reporting will facilitate:

1. Appropriate confirmatory testing (see “Laboratory Testing” below)
2. Implementation of critical measures designed to limit the spread of novel influenza infections to others (see Module IV, “Limiting the Spread of Disease”)
3. Initiation of influenza antiviral therapy, if available
4. Maintenance of vigilance for complications

During the Alert period and the early stages of the pandemic, the SCCPHD will interview patients with novel influenza virus infections for purposes of gathering clinical and epidemiological information that will inform the content of future Physician Alerts. The SCCPHD may also coordinate the provision of support services to patients ill at home with novel influenza infections – such as nursing advice to friends and family members providing care to ill persons at home, delivery of food and medicines, or transportation when necessary to hospitals or influenza care centers.

#### ***Pandemic Period***

The SCCPHD will keep healthcare providers informed regarding changes in reporting requirements. Case-based reporting will become impractical when the number of cases in the county reaches a critical threshold, but clinician reports will nevertheless be needed to herald new waves of the pandemic as well as possible changes in clinical characteristics and antiviral sensitivity patterns. Throughout the duration of the pandemic, clinicians may be asked to report atypical or unusual cases, as well as breakthrough infections while on prophylaxis. Clinicians must also be aware that the case definition for novel and pandemic influenza infections may change as new clinical and epidemiological information becomes available. The SCCPHD will communicate new reporting requirements and case definitions as necessary via Physician Alerts distributed by blast fax and posted on the SCCPHD website.

### **Laboratory Testing**

During the Alert period and the initial stages of a pandemic, the SCCPHD will encourage providers to test all cases of suspected novel influenza infection to accurately document the arrival of the pandemic strain in Santa Clara County and to document any antiviral resistance. After this is accomplished, clinical case definitions can be used and there will not be a need to have routine laboratory confirmation. Short-term increases in testing of hospitalized patients will need to occur at the beginning of any new waves of disease during the pandemic to track any evolution or changes in the virus. Instructions to healthcare providers regarding when to submit specimens to the Santa Clara County Public Health Laboratory and when not to, will be communicated via Physician Alerts and Laboratory Community Updates sent by blast fax and posted to the SCCPHD website.

When evaluating a suspected case of avian or other novel influenza virus infection, healthcare providers should follow the procedures below for obtaining confirmatory testing:

1. Collect and handle all clinical specimens from suspect novel or avian influenza A (H5N1) patients while wearing gloves, face and eye protection (shields, goggles, etc.), and a laboratory coat.

2. Collect a nasal **and** throat swab<sup>54</sup> (use dacron or rayon swabs only) and place each swab into a separate vial of viral transport media (VTM). Break off sticks leaving swabs in the VTM.
3. Label each specimen with the following information: PATIENT'S NAME, DATE COLLECTED, AND TYPE OF SPECIMEN. **Because culture is not recommended on these cases, please note "Suspect case of avian influenza A (H5N1)" on the form and specimens.**
4. Complete the Specimen Submittal Form for Suspect Avian Influenza A (H5N1) for each patient with the following information: patient's name, age, date of illness onset, type of specimen(s), date collected and clinical symptoms. See Physician Alert dated December 9, 2005 (**Tool 10**); if the referenced form is not available, your standard laboratory submittal form is acceptable.
5. Send specimen(s) and submittal form (to the Santa Clara County Public Health Laboratory at 2220 Moorpark Ave., 2<sup>nd</sup> Fl., San Jose, CA 95128. Telephone: 408-885-4272.
6. Consider collection of an acute phase blood specimen (5-10 ml whole clotted blood) in a red top or serum separator tube, for serologic testing for influenza and a panel of other respiratory viruses. A convalescent specimen should be drawn in 14 – 21 days. **DRAW SPECIMEN FROM PATIENT ON SITE. DO NOT SEND PATIENT TO AN OFF-SITE DRAW STATION.**

Healthcare providers with questions regarding specimen collection and submittal, or with questions regarding the interpretation of influenza diagnostic tests, should call the Santa Clara County Public Health Laboratory at 408-885-4272 during working hours and at 408-885-4200 after hours, weekends and holidays.

### **Use of Rapid Influenza Diagnostic Tests**

#### ***Alert Period***

Clinicians must be aware that rapid influenza diagnostic tests (including indirect fluorescent antibody staining [IFA] and/or direct fluorescent antibody staining [DFA]) have relatively low sensitivity for detecting seasonal influenza, and their ability to detect novel or pandemic

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<sup>54</sup> The attached guidelines (**Tool 31**), "Santa Clara County Public Health Laboratory Guidelines for Collecting and Shipping Specimens for Influenza A (H5N1) Diagnostics," describes clinical procedures for obtaining specimens for laboratory testing for influenza A.

influenza viruses is unknown. Therefore, these tests should not be used to confirm or exclude novel influenza infections.

Novel or avian influenza can be confirmed by RT-PCR or virus isolation from cell culture with subtyping. Whether a suspect case of avian influenza A (H5N1) tests negative or positive by a rapid influenza test, the specimen should still be forwarded to the SCCPHL for testing by these more sensitive methods. Because of the inherent danger in attempting to culture virulent novel or avian strains, these tests must not be attempted by hospital or commercial laboratories, which are not designed with Biosafety Level 3 (BSL 3) precautions.

### ***Pandemic Period***

Once the pandemic is established in Santa Clara County, routine laboratory diagnostic testing by the SCCPHL to confirm infection with pandemic influenza will no longer be practical or routinely necessary, in most situations. During the pandemic, commercially available rapid diagnostic tests for influenza may have a role in guiding decisions regarding initial clinical management, cohorting, and initiation of antiviral therapy<sup>55</sup>. In settings of low local prevalence, as at the beginning or end of pandemic waves, confirmatory laboratory testing might be helpful in determining whether institutional outbreaks of respiratory illness may be due to influenza, and may aid cohorting decisions. Rapid diagnostic testing may also be useful before initiating treatment with antiviral medications, especially when these medications are in short supply.

### **Initiation of Antiviral Therapy**

#### ***Alert Period***

Early antiviral therapy shortens the duration of illness due to seasonal influenza and would be expected to have similar effects on illness due to novel or pandemic influenza viruses. All patients with suspected novel influenza virus infection should be started on influenza antiviral medications, if available, even before confirmatory testing has been completed. Antiviral

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<sup>55</sup> The sensitivity of rapid diagnostic tests will likely be higher in specimens collected within two days of illness onset, in children, and when tested at clinical laboratories that perform a high volume of testing. Because during a pandemic a negative rapid test may be a false negative, test results need to be interpreted within the overall clinical context. For example, it may not be optimal to withhold anti-viral treatment from a seriously ill high risk patient on the basis of a negative test; however, in a setting of limited anti-viral drug availability, treatment decisions in less high risk situations could be based on test results. The risk of a false-negative test also must be taken into account in making cohorting decisions. Rapid diagnostic testing should not preclude more reliable testing, if available.



prophylaxis for their close contacts should also be considered, particularly for close contacts who are believed to be at high risk for serious complications from influenza.

### ***Pandemic Period***

Influenza antiviral medications are likely to be available in short supply. The SCCPHD will issue and periodically update directives for the use of influenza antiviral medications during the pandemic.

A detailed discussion of the use of influenza antiviral medications for seasonal, novel, and pandemic influenza follows in the section titled “Use of influenza antiviral medications.”

### **Triage to Appropriate Levels of Care**

During the Alert period as well as the early stages of an influenza pandemic, healthcare providers will be expected to follow existing standards of care in determining whether an individual patient with suspected novel or pandemic influenza infection is best treated at home or in the hospital. However, as the pandemic progresses and more people become ill, existing healthcare resources – including hospital beds – will likely become overwhelmed. In this “Critical Resources Stage” of the pandemic, the Santa Clara County Health Officer will establish community-wide criteria for hospital admission and will activate Influenza Care Centers. Influenza Care Centers will provide an alternative to care in the acute-care hospital setting for patients who may not be sick enough to meet stringent hospital admission criteria, but who also do not have adequate support systems in place for treatment at home. See Module III “Healthcare” for a complete description of the Influenza Care Centers.

The SCCPHD will develop and communicate standardized clinical criteria for triage of patients to care in the inpatient acute-care hospital setting vs. the Influenza Care Center vs. the home. The attached algorithm, “Clinical Triage Guidelines during Pandemic Critical Resources Stage,” describes the initial criteria for triaging patients in this Critical Resources Stage of the pandemic (Tool 32). Considering demands on healthcare resources at different stages of the pandemic, the SCCPHD may change these triage criteria from time to time. The SCCPHD will communicate these changes to healthcare providers via the Physician Alert blast fax system and the SCCPHD website.

See “Home Care Guidelines” below for information relevant to the management of patients with novel or pandemic influenza infection at home.

In the event the pandemic overwhelms resources of hospitals and Influenza Care Centers, the SCCPHD may develop triage guidelines describing criteria for the use of austere medical care (also referred to as “sufficiency of care”; see Module III – Health Care) for patients too sick to receive standard medical services. This may include allowing natural death without medical intervention.

### **Evaluation of Alternative Diagnoses**

In patients meeting criteria for novel or pandemic influenza, an alternative diagnosis should be based only on laboratory tests with high positive-predictive value (e.g., blood culture, viral culture, PCR, *Legionella* urinary antigen, pleural fluid culture, transthoracic aspirate culture). If an alternate etiology is identified, the possibility of co-infection with a novel or pandemic influenza virus may still be considered if there is a strong epidemiologic link to exposure. Management decisions such as discontinuing isolation and influenza antiviral therapy should be made carefully in light of these considerations.

### **Evaluation and Management of Patients With Novel or Pandemic Influenza Virus Infections**

#### **Clinical Course**

Patients with seasonal influenza typically experience an abrupt onset of symptoms including fever, often with chills or rigors, headache, malaise, diffuse myalgias, and a nonproductive cough. Respiratory symptoms, including sore throat, nasal congestion, rhinitis, and cough, become more prominent as the illness progresses. Abdominal pain, nausea and vomiting may occur, especially in children, and some patients develop conjunctival injection. Influenza may also produce episodes of apnea or a sepsis-like picture in young infants, and some children may have fever with upper respiratory symptoms and few other respiratory tract signs. Patients with seasonal influenza are thought to be infectious at least 24 hours prior to the onset of symptoms, and remain infectious for 5-7 days after the onset of symptoms. Cough, in association with some degree of general malaise, may persist for 1 or 2 weeks after the rest of the illness has subsided.

Healthcare providers must be aware that novel or pandemic strains of influenza A virus may produce clinical syndromes that differ from seasonal influenza. For example, avian influenza

H5N1 strains currently circulating in southeast Asia and parts of Europe have produced an unusually aggressive clinical course, with rapid deterioration and high fatality. Some patients have presented with acute encephalitis without respiratory symptoms, while others have reported diarrhea, vomiting, abdominal pain, chest pain, and bleeding from the nose and gums as early symptoms of disease. Neither the clinical characteristics of a novel or pandemic influenza virus strain nor the groups at highest risk for complications can be defined with certainty beforehand.

## Management Issues

Specific guidance for management of illness include:

1. **Fever management** – Fever management can significantly improve the comfort of patients with influenza and may be particularly important for children with a history of febrile convulsions and for those attempting to maintain their hydration status at home. Antipyretics including acetaminophen and ibuprofen are appropriate for use in the management of fever caused by influenza. In order to avoid an overdose, patients taking an antipyretic should be advised to avoid concurrently using over-the-counter preparations containing the same medication. Aspirin and other salicylates should be avoided in children under the age of 18 years, because of the association between aspirin treatment and the development of Reye syndrome - a potentially fatal acute disease of the liver accompanied by hyperammonemic encephalopathy - in children with influenza.
2. **Maintenance of hydration** – Insensible fluid losses caused by fever and tachypnea, coupled with malaise and poor appetite, place patients with influenza at significant risk for dehydration. In addition, some patients suffer fluid losses from vomiting. Patients should be advised to rest in bed and drink plenty of fluids. Patients unable to maintain their hydration through oral intake will require IV fluids (**Tool 33**).
3. **Bronchospasm** – Patients with influenza may experience significant bronchospasm, particularly those with underlying inflammatory diseases of the airways including asthma. Treatment with bronchodilators and anti-inflammatory agents (e.g., inhaled or systemic corticosteroids) should be considered and should be tailored to the severity of the clinical signs and symptoms. Because the use of nebulized medications is thought to increase the risk of transmission of influenza, medications administered orally or by MDI are preferred.

4. **Antivirals** – Early antiviral therapy shortens the duration of illness due to seasonal influenza and would be expected to have similar effects on illness due to novel or pandemic influenza viruses. The use of antiviral agents for treatment should therefore be considered, particularly for those at highest risk of severe complications of influenza infection. Prophylaxis should be considered for close contacts of patients with influenza, particularly if they are unvaccinated and at high risk for complications if infected. A detailed discussion of considerations for antiviral treatment and prophylaxis follows below in the section titled “Use of Influenza Antiviral Medications.”
5. **Monitoring for complications** – Diffuse primary influenza virus pneumonia may appear after 3-5 days of illness and is often life-threatening. Influenza viral pneumonia is characterized by severe dyspnea, cyanosis, and the production of small amounts of bloody sputum. Signs of secondary bacterial pneumonia may include a reappearance of fever after an afebrile period, tachypnea, increasing cough and shortness of breath, signs of respiratory distress (e.g., grunting, nasal flaring, and retractions of the chest wall), pleuritic chest pain, and hypoxia. The attached “Guidelines for the management of community-acquired pneumonia (CAP) during an influenza pandemic” and “Empiric antibiotic regimens for community acquired pneumonia during an influenza pandemic” provide further information regarding the management of pneumonia during a pandemic (Tool 34 ; Tool 35).
6. **Bacterial tracheitis**, which presents with signs of airway obstruction suggestive of croup, may also complicate influenza and may be life-threatening.
7. **Otitis media** is a common complication of influenza, especially in young children. Oral antibiotic therapy and medication to relieve pain may be useful in this situation.
8. **Myocarditis** may be seen with influenza infection but fortunately is relatively uncommon.
9. **Encephalitis and meningitis**, though rare, may complicate influenza infection.

Additional complications that may be seen in children include apnea (especially young infants), febrile seizures, and vomiting with dehydration. Asthma exacerbations, although common in children with influenza, may be seen in influenza patients of any age and should be appropriately managed and monitored. Viral myositis, typically involving the calves, may also be seen in children with influenza A, although this complication is more commonly seen with influenza B.

## **Management of High-Risk Contacts of Novel or Pandemic Influenza Cases**

### ***Alert Period***

During the Alert period, most patients diagnosed with novel influenza virus infections will be isolated in the acute-care hospital setting. Standard and droplet precautions should be continued for a period of 14 days following the onset of symptoms, either in the hospital setting, or in the home if the patient is discharged before that 14-day period has elapsed. For guidance in isolating patients in the home setting, refer to the Home Isolation Checklist (Tool 21).

If these individuals have close contacts (especially household contacts) who are at high risk for serious complications of influenza infection, these high-risk contacts should limit visitation with the infected patient and should receive prophylaxis with influenza antiviral medications for a minimum of 7 days and perhaps longer. The optimal duration of antiviral prophylaxis in this setting would be determined by what is known about the period of viral shedding for the novel strain in question. Close contacts who are NOT at high risk of serious complications ideally should receive prophylaxis with influenza antiviral medications as well.

### ***Pandemic Period***

During the Pandemic period, the majority of patients with influenza will be treated in the home, even if they have household contacts who are at high risk for serious complications of influenza. Individuals and families should follow the precautions described in the Home Isolation Checklist (Tool 21). Ideally, uninfected individuals at high risk for serious complications of influenza should limit contact with the infected person(s) and should NOT serve as primary caregivers for patients at home with pandemic influenza. High-risk household contacts of influenza patients should be provided with prophylaxis, using antiviral medications and/or strain-specific influenza vaccine, whenever possible.

### **Use of Influenza Antiviral Medications**

Infections with influenza A virus are amenable to chemoprophylaxis (prevention) and treatment with antiviral medications falling into two classes: the adamantanes (amantadine and rimantadine) and the neuraminidase inhibitors (oseltamivir and zanamivir). Strategic use of these medications may reduce the impact of influenza on persons at high risk for developing severe complications from influenza infection, and may also be useful in limiting the spread of disease, especially in institutional settings. Clinical decisions about when to use these drugs will differ when treating seasonal influenza, novel influenza infections (e.g., avian influenza), and

pandemic influenza, depending upon the availability of the drugs and on their observed efficacy with different viral strains.

### **Seasonal Influenza**

During the AlertPperiod, healthcare providers should continue to utilize influenza antiviral agents according to established standards of care, provided the local supply of antiviral medications is adequate.

The CDC has published guidelines for the use of influenza antiviral medications for the 2005-2006 influenza season (full text available at <http://www.cdc.gov/flu/professionals/treatment/0506antiviralguide.htm>), as well as detailed information about each medication (available at <http://www.cdc.gov/flu/professionals/treatment/>). Indications and dosing guidelines for these medications are included in a table included in the appendices (Tool 36).

Because a high proportion of the influenza A strains circulating during the 2005-2006 influenza season have developed resistance to the adamantanes, CDC recommends, for seasonal influenza, that oseltamivir be used for chemoprophylaxis and that oseltamivir or zanamivir be used for treatment. The CDC guidelines recommend the following individuals for chemoprophylaxis and treatment with influenza antivirals:

#### **Candidates to Whom Chemoprophylaxis Should Be Offered**

1. All persons living or working in institutions caring for people at high risk of serious complications<sup>56</sup> from influenza, in the event of an institutional outbreak. Do not wait for laboratory confirmation to start prophylaxis, if influenza is strongly suspected. Vaccinated staff should receive prophylaxis for 2 weeks following vaccine; residents should continue prophylaxis for the duration of the outbreak, whether or not they are vaccinated.
2. Persons at high risk for serious complications of influenza, if they have been exposed or are likely to be exposed to influenza (e.g., in the household setting). High-risk persons

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<sup>56</sup> Persons at risk for serious complications of influenza include the following:

- persons aged >65 years of age
- children aged 6-23 months
- persons with chronic diseases such as diabetes mellitus, asthma, heart disease, kidney diseases, severe anemia, cancer, and weakened immune systems due to immunosuppressive medications or HIV infection
- children aged 6 months to 18 years who are on long-term aspirin therapy

exposed to seasonal influenza in the household setting should be given chemoprophylaxis for 7 days.

### **Candidates for Whom Chemoprophylaxis Should Be Considered after Influenza Circulation Has Been Documented**

1. Persons at high risk of serious complications who are not able to receive vaccine.
2. Persons at high risk of serious complications who have been vaccinated but have not had time to mount an immune response to the vaccine. In adults, chemoprophylaxis should occur for a period of 2 weeks after vaccination. In children aged <9 years, chemoprophylaxis should occur for 6 weeks after the first dose, or 2 weeks after the second dose, depending on whether the child is scheduled to receive one or two doses of vaccine.
3. Persons with immunosuppressive conditions who are not expected to mount an adequate antibody response to influenza vaccine.
4. Health-care workers who have direct patient care responsibilities and who are not able to obtain vaccine.

### **Candidates for Treatment with Influenza Antivirals**

1. Any person experiencing a potentially life-threatening influenza-related illness
2. Any person at high risk for serious complications of influenza and who is within the first 2 days of illness onset. Pregnant women should consult their primary provider regarding use of influenza antiviral medications.

### **Candidates for Whom Treatment with Influenza Antivirals Should Be Considered**

1. Infected adults and children aged  $\geq 1$  year who do not have conditions placing them at high risk for serious complications secondary to influenza infection.

### **Novel Influenza Strain (e.g., avian influenza)**

In the Alert period, patients with suspected or confirmed infection with novel strains of influenza A virus (e.g., avian influenza) should be treated with appropriate antiviral medications. The

- 
- persons with conditions (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or handling of respiratory secretions or that can increase the risk of aspiration

neuraminidase inhibitors (oseltamivir and zanamivir) are currently preferred for treatment of novel influenza infections, because (1) the majority of avian influenza A (H5N1) viruses currently affecting humans are resistant to the adamantanes, and (2) resistance to the adamantanes typically develops rapidly when they are used for treatment of influenza. Oseltamivir is more readily available and easier to use than zanamivir, which must be administered by inhalation. The recommended duration of treatment with oseltamivir for seasonal influenza is 5 days. The optimal duration of therapy for avian influenza is not currently known and may be somewhat longer.

In order to reduce the spread of a novel influenza virus in the community, close contacts of patients with suspected or confirmed novel influenza A virus infections should be provided with antiviral chemoprophylaxis for a period of at least 7 days following exposure, whether or not they are considered to be at high risk for serious complications from influenza infection. Close contacts may include family, schoolmates, coworkers, healthcare providers, and fellow passengers if the patient has been traveling. Oseltamivir is the preferred agent for prophylaxis in this situation. If the exposure to novel influenza virus occurs during the regular influenza season, the patient's healthcare contacts should be vaccinated against seasonal influenza to reduce the possible risk of co-infection and reassortment of seasonal and novel influenza strains. The Santa Clara County Public Health Department Disease Control division will provide assistance in determining whether post-exposure prophylaxis for close contacts is feasible in this situation, and will determine whether these contacts require quarantine and clinical observation while on prophylaxis.

### **Pandemic Influenza**

During the influenza pandemic, the Santa Clara County Health Officer will issue directives to guide healthcare providers in deciding when and how to use influenza antiviral medications. These directives will differ from those issued during a typical influenza season. Health Officer directives will be distributed via the Physician Alert system and will be available on the SCCPHD website at [www.sccphd.org](http://www.sccphd.org)

### **Stockpiling**

The Santa Clara County Public Health Department asks that healthcare providers refrain from prescribing oseltamivir (Tamiflu) and other antiviral agents for individual personal stockpiles



**(Tool 27)**. A number of other government and professional organizations, including the California Conference of Local Health Officials (CCLHO), the California State Department of Health Services (CDHS), and the Committee on Infectious Diseases of the American Academy of Pediatrics, have likewise discouraged the practice of prescribing personal stockpiles. There are limited supplies of Tamiflu in the US. Prescribing and purchasing personal stockpiles of this drug and other similar antiviral agents now because of concerns about a future pandemic may be expected to:

1. Lead to shortages so that appropriate antiviral treatments are unavailable to those who need them most during the regular flu season
2. Promote the development and spread of resistance to this important drug among influenza viruses
3. Lead to inappropriate use by lay people to treat non-influenza illnesses, potentially exposing them to unnecessary toxicity
4. Reduce the federal government's ability to build up supplies of antivirals in the Strategic National Stockpile.

### **Efficacy of Antivirals against Avian/Novel Influenza**

The efficacy of available antiviral drugs against new novel or pandemic influenza strains cannot be predicted. However, most avian influenza A (H5N1) strains in circulation in southeast Asia are resistant to the adamantanes (amantadine and rimantadine). In addition, viral resistance to the adamantanes rapidly emerges when patients infected with influenza are treated with these drugs. For these reasons, the neuraminidase inhibitors (oseltamivir and zanamivir) are currently preferred for treatment of novel influenza infections.

Early treatment (i.e., within 48 hours of symptom onset) of uncomplicated seasonal influenza may reduce the duration of illness, and studies suggest that early treatment with neuraminidase inhibitors may reduce the risk of hospitalization by about 50%. However, no data are available on the effectiveness of neuraminidase inhibitors in preventing serious morbidity or mortality.

During the pandemic, federal agencies will conduct studies to evaluate the effectiveness of antiviral drug use in collaboration with state and local agencies as well as healthcare providers. Healthcare providers are advised to monitor communications from the CDC and the SCCPHD for emerging information about the efficacy of antiviral treatments during the pandemic.

## **Use Of Influenza Vaccine**

Healthcare providers should continue to administer vaccine for seasonal influenza to their patients during the Alert period, even though the strains included in the vaccine will not match the pandemic strain, in order to provide protection against seasonal influenza, and to reduce the likelihood that a patient will be co-infected with seasonal and novel influenza strains at the same time. Such co-infection may set the stage for viral genetic reassortment in the host patient and lead to the emergence of an influenza strain with pandemic potential. Once the pandemic begins, it will be possible for a patient to acquire seasonal influenza and pandemic influenza simultaneously or to experience the two infections in close succession; immunization against seasonal influenza may therefore reduce the disease burden in individuals as well as in the community.

## **Priority Groups for Immunization against Seasonal Influenza Vaccine**

Priority groups for immunization against seasonal influenza have been established by the Advisory Committee on Immunization Practices.<sup>57</sup> They include those (1) individuals who, based upon past epidemiological information, are most likely to suffer serious complications of influenza because of their age or because of underlying medical conditions; (2) individuals who, because of their work setting, are most likely to acquire infection with influenza and spread it to others; and (3) individuals who reside in settings where there is a high risk for outbreaks of seasonal influenza. Currently, any individual over 6 months of age may be vaccinated against seasonal influenza, provided there are no contraindications to the vaccination. However, individuals in the following high-risk groups are given priority access to the vaccine:

1. Persons aged  $\geq 65$  years of age
2. Children aged 6-23 months
3. Pregnant women
4. Persons with chronic diseases such as diabetes mellitus, asthma, heart disease, kidney diseases, severe anemia, cancer, and weakened immune systems due to immunosuppressive medications or HIV infection
5. Children aged 6 months to 18 years who are on long-term aspirin therapy

6. Persons with any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration
7. Health-care workers involved in direct patient care, and
8. Out-of-home caregivers and household contacts of children aged <6 months.

Persons in the following groups should not receive influenza vaccine before talking with their doctor:

1. Persons with a severe allergy (i.e., anaphylactic allergic reaction) to hens' eggs
2. Persons who previously had onset of Guillain-Barré syndrome during the 6 weeks after receiving influenza vaccine.

### **Recommendations for Use of Influenza Vaccine during a Pandemic**

Strain-specific influenza vaccine will not be available in the early stages of a pandemic. If the pandemic strain corresponds closely to the H5N1 avian flu strain for which vaccine development is already underway, a limited supply of effective vaccine stockpiled by the federal government may be available relatively early in the course of the pandemic. Vaccine manufactured specifically against the pandemic strain may be unavailable for up to 6 months after the pandemic strain is identified.

During the pandemic, when influenza vaccine becomes available, the SCCPHD will establish priority groups for vaccination based upon consideration of (1) clinical and epidemiological information about those groups most seriously affected by the pandemic strain (which may differ from the groups most affected by seasonal influenza), (2) individuals most likely to acquire influenza infection and spread it to others, such as day care attendees and school-aged children, (3) the need to protect those actively involved in pandemic response efforts, and (4) the need to protect workers engaged in activities vital to the maintenance of critical infrastructure. Based upon these considerations, the Health Officer will develop directives for the use of pandemic influenza vaccine. These directives will be distributed to healthcare providers via the Physician Alert blast fax system and posted to the department's website.

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<sup>57</sup> See MMWR October 8, 2004 /53(39);923-924, full text available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5339a6.htm>, AND MMWR for July 29, 2005 /

## **Procurement of Influenza Vaccine during a Pandemic**

During an influenza pandemic, the SCCPHD will maintain control of the influenza vaccine supply coming into the county. Healthcare providers will be expected to follow SCCPHD directives for the procurement and administration of the vaccine, according to a plan developed by the department.

## **Use of Pneumococcal Vaccines**

Healthcare providers can help to reduce their patients' risk of post-influenza secondary bacterial pneumonia NOW by ensuring that all patients are appropriately immunized – in advance of the pandemic – against *Streptococcus pneumoniae*. Two vaccines against this organism are currently available: the 7-valent pneumococcal conjugate vaccine (PCV7), marketed as Prevnar®, and the 23-valent pneumococcal polysaccharide vaccine, marketed as Pneumovax®.

### ***Pneumococcal conjugate vaccine (PCV7)***

Prevnar, or PCV7, is currently recommended for routine immunization of all children beginning at the age of 2 months. Four doses are recommended, the primary series being given at 2, 4, and 6 months, with a booster dose recommended at 12-15 months of age.<sup>58</sup> The Advisory Committee on Immunization Practices (ACIP) also recommends that the vaccine be used for children aged 24--59 months who are at increased risk for pneumococcal disease (e.g., children with sickle cell disease, human immunodeficiency virus infection, and other immunocompromising or chronic medical conditions). ACIP also recommends that the vaccine be considered for all other children aged 24--59 months, with priority given to a) children aged 24--35 months, b) children who are of Alaska Native, American Indian, and African-American descent, and c) children who attend group day care centers. A pneumococcal vaccination schedule is available for infants and young children who are beginning their vaccination series at an older age and for those who missed doses. Among children aged 24--59 months for whom polysaccharide vaccine is already recommended, ACIP recommends vaccination with the new conjugate vaccine followed, >2 months later, by 23-valent polysaccharide vaccine (Pneumovax).

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54(RR08);1-40, full text available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5408a1.htm>

<sup>58</sup> MMWR Recommendations and Reports: Preventing Pneumococcal Disease Among Infants and Young Children. October 06, 2000 / 49(RR09);1-38. This article is available online at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4909a1.htm>

Healthcare providers may administer a single dose of PCV7 to previously unvaccinated or incompletely vaccinated children 24-59 months of age who do not fall into a high-risk category but whose parents or caregivers are seeking additional protection against pneumonia in advance of the influenza pandemic.

***Pneumococcal polysaccharide vaccine (Pneumovax)***

Pneumovax is approved only for persons 2 years of age and older, and is recommended for routine immunization of all persons >65 years of age, including those who were vaccinated before 65 years of age if 5 years or more have elapsed since the last dose of Pneumovax.<sup>59</sup> The Advisory Committee on Immunization Practices also recommends this vaccine for all children and adults >2 years of age with one of the following risk factors:

1. Chronic illness increasing the risk of illness and death from pneumococcal disease, such as chronic cardiovascular disease, chronic pulmonary diseases other than asthma, diabetes mellitus, alcoholism, chronic liver disease, and CSF leaks
2. Functional or anatomic asplenia, including sickle cell disease
3. Living in an environments in which the risk for disease is high, such as nursing homes and other long-term-care facilities
4. Immunocompromising conditions, including HIV infection, leukemia, lymphoma, Hodgkins disease, multiple myeloma, generalized malignancy, chronic renal failure, nephritic syndrome, and other conditions associated with immunosuppression, including iatrogenic immunosuppression from chemotherapy or long-term use of systemic corticosteroids.

Healthcare providers may also administer Pneumovax to individuals who do not fall into one of these categories but who are seeking additional protection against pneumonia in advance of the influenza pandemic.

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<sup>59</sup> MMWR Recommendations and Reports: Prevention of Pneumococcal Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). April 04, 1997 / 46(RR-08);1-24. This article is available online at <http://www.cdc.gov/mmwr/preview/mmwrhtml/00047135.htm#00002349.htm>

## **Home care guidelines**

During an influenza pandemic, limited healthcare resources will mean that most patients with influenza will receive care for their illness at home. The following information is intended to help healthcare providers support their patients with influenza who are receiving care from family, friends and neighbors at home.

### **Pandemic flu preparedness for individuals and families**

Healthcare providers are in a unique position to provide authoritative guidance to individuals and families who want to be better prepared to face the influenza pandemic. Individuals and families should begin to prepare for the pandemic now. The SCCPHD has developed a document for individuals entitled “Your Guide to Preparing for Pandemic Flu,” (Tool 38) which healthcare providers and their patients may download from the SCCPHD’s website at [www.sccphd.org](http://www.sccphd.org) (select the “Pandemic Influenza” option and scroll down to the guide, which is available in English, Spanish, and Vietnamese). Healthcare providers and individuals may also order copies of the guide by calling the Public Health Information Line (PHIL) at (408) 885-3980 and selecting the “pandemic flu” option. Orders for fewer than 50 copies will be mailed; larger orders will be held for pick-up. Additionally, a “Household Flu Preparedness Checklist” is included in the appendices (Tool 42), which provides recommendations for foods, medications, and equipment that families will need on hand when the pandemic begins.

In addition to supplies and medicines for managing the symptoms of influenza, individuals and families will need adequate stocks of medications and medical supplies to manage their chronic medical conditions during the pandemic, when access to the healthcare setting may be limited and potentially dangerous for those not infected with the pandemic strain. Healthcare providers should consider developing systems to ensure that patients can stock these supplies in advance of the pandemic, and to ensure where possible that their patients can refill these supplies during the pandemic without needing to report to clinics or medical offices where they might be exposed to patients infected with the pandemic strain.

The federal government has also provided guidance for families and individuals at <http://www.pandemicflu.gov/plan/tab3.html>.

### **Infection Control and Isolation in the Home**

Many if not most patients with novel or pandemic influenza will be managed in the home setting. They and their caregivers will need to observe careful infection control and isolation precautions in order to protect those in the home who are uninfected.

For patients with suspected novel or pandemic influenza (1) who are managed as outpatients, or (2) who have been hospitalized, but discharged less than 14 days following the onset of symptoms (in the case of novel influenza) or less than 5 days following the onset of symptoms (in the case of pandemic influenza), the following infection control and isolation procedures should be followed in order to protect the well:

1. Limit contact between infected and not infected persons:
  - a. Physically separate the patient with influenza from non-ill persons living in the home as much as possible. If more than one person in the home has influenza, all ill persons can share the same room. Ideally the patient(s) with influenza should have their own room with windows that open to increase air circulation.
  - b. Patients should not leave the home during the period when they are most likely to be infectious (5 days after onset of symptoms, and potentially longer). When travel outside the home is necessary (e.g. for medical care), the patient should cover the mouth and nose when coughing and sneezing and should wear a mask.
  - c. As much as is possible, one person in the home should be the designated caregiver and all others should limit contact to the extent possible.
  - d. If contact between infected and not infected individuals cannot be avoided (e.g., during transport in a car), place a surgical or procedure mask over the nose and mouth of the ill person, and open the windows to increase air circulation.
2. Contain infectious respiratory secretions of the ill:
  - a. All persons with signs and symptoms of a respiratory infection, regardless of presumed cause, should:
    - i. Cover nose and mouth when coughing or sneezing.
    - ii. Use tissues to contain respiratory secretions.
    - iii. Dispose of tissues in the nearest waste receptacle after use.
    - iv. Perform hand hygiene after contact with respiratory secretions and contaminated objects/materials.
3. Protect the well with personal protective equipment (PPE) and hand hygiene:

- a. Persons caring for individuals suspected to be infected with influenza in the home can protect themselves by doing the following:
  - i. Wear a surgical or procedure mask when in close contact (< 3 feet) with 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.
  - ii. Wear gloves if there is likely to be contact with respiratory secretions. Discard gloves immediately after use.
- b. Hand hygiene
  - i. If hands are visibly soiled, wash them with warm water and soap.
  - ii. If hands are not visibly soiled, used an alcohol-based hand rub (these products are preferred over soap and water in this situation because they don't dry the skin).
  - iii. Perform hand hygiene after contact with a person who may be ill, after removing mask or gloves, or after touching items or surfaces that may be soiled.
- c. Promote air circulation and keep environmental clean.
- d. Good air circulation has been shown to decrease the chance of spreading respiratory viruses.
  - i. When caring for patient in the home, place patient in their own room with an operable window. Keep window open as the climate permits, and if necessary use a fan to circulate the fresh air.
  - ii. UV radiation can kill influenza virus. Open the shades and allow sunlight into the room.
- e. Waste disposal
  - i. Tissues used by the ill person and other waste should be placed in a bag and disposed of with other household waste.
- f. Linen and laundry
  - i. 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. Hand hygiene should be performed after handling soiled laundry

g. Dishes and utensils

- i. 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.

h. Environmental cleaning and disinfection

- i. Environmental surfaces in the home can be cleaned using normal procedures. An EPA-registered hospital disinfectant can be used according to manufacture’s instructions, but is not necessary. There is no evidence to support the widespread disinfection of the environment or the air.

The attached “Home Isolation Checklist” (**Tool 21**) should be given to patients with novel or pandemic influenza who are being managed at home, to assist them in following these practices.

### **Supportive Care**

The Patient Home Care Handout (To be developed – **Tool 37**) for use in the in the home care setting, will be available in several languages, and includes:

1. How to measure temperature
2. Fever control (include table of usual doses of acetaminophen and ibuprofen – see Barton Schmitt p. 65)
3. Management of dehydration
4. Home isolation/quarantine checklist
5. When to seek medical care for family members ill at home

### **Fever Control**

Fever is defined as a temperature of 38°C (100.4°F) measured orally or rectally.

It is not strictly necessary to treat fever because fever is not inherently harmful. However, most patients are more comfortable if their fever is controlled during waking hours, and control of fever may help to prevent dehydration as fever increases insensible water losses. Fever control may be particularly important for children with a history of febrile convulsions. Fever can usually be safely controlled with acetaminophen and/or ibuprofen, in both children and adults. Aspirin should not be used in children <18 years of age because of a known association with Reye syndrome.

Influenza patients managed at home should be instructed in the proper use of antipyretics. In order to avoid an overdose, patients taking an antipyretic should be advised to avoid concurrently using over-the-counter preparations containing the same medication.

Fever should prompt a medical evaluation for infants under 2 months of age and for patients who are severely immunocompromised. In addition, fever reappearing after a prolonged afebrile period may herald the appearance of a secondary bacterial infection and should prompt a medical evaluation.

### **Dehydration**

Insensible fluid losses caused by fever and tachypnea, coupled with malaise and poor appetite, place patients with influenza at significant risk for dehydration. In addition, some patients – especially young children - suffer fluid losses from vomiting. Patients managed at home should be advised to rest in bed and drink plenty of fluids. Caregivers concerned that an influenza patient is at risk for dehydration because of decreased oral intake should actively encourage fluids by mouth provided the patient is able to drink.

The attached table “Fluids suitable for maintenance of hydration and management of mild dehydration for influenza patients in the home setting” (**Tool 33**) provides suggestions for age-appropriate fluids to be used for maintenance of hydration and management of mild dehydration for influenza patients in the home setting.

Infants and young children (<5 years of age) with signs of dehydration should be initially managed with commercial rehydration solutions, in addition to breast milk or infant formula as appropriate. A recipe for cereal-based oral rehydration solution (CBORS) is provided as an alternative to commercial rehydration solutions for this age group, but it should ONLY be used if the commercial products are not available because of the potential for hazardous mixing errors.

A simple recipe for rehydration solution suitable for use in older children and adults consists of 4 cups of clean water, 2 tablespoons of sugar, and ½ teaspoon of salt. The solution should not be

boiled as this will concentrate the solutes. In situations where water must be boiled before use (e.g., if a “Boil Water” order has been issued), the water should first be boiled and the sugar and salt added after the water has cooled. This recipe is included in the pocket guide “Your Guide to Preparing for Pandemic Flu” (Tool 38), available on the SCCPHD website. Patients should not consume alcoholic beverages while ill with influenza, as this will increase the risk of dehydration, in addition to compromising hepatic and CNS function.

Caregivers should monitor influenza patients for signs of dehydration, which may include dry mouth, dry or sunken eyes, and decreased urine output. Severely dehydrated patients may have loose or doughy skin, a rapid heart rate, and changes in mental status. If a patient ill with influenza is unable to take fluids by mouth, or is showing signs of dehydration, a clinical assessment is warranted. This is particularly critical for the very young (infants), the elderly, and patients with underlying chronic disease, especially cardiac, renal or metabolic diseases such as diabetes.

### **Airway Support**

The comfort of patients with influenza may sometimes be improved with nasal decongestants (e.g., pseudoephedrine), expectorants (e.g., guaifenesin), and cough suppressants (e.g., dextromethorphan). These agents do not hasten the resolution of disease, however.

Influenza patients experiencing bronchospasm, including those with asthma, will need to maximize the use of their controller (anti-inflammatory) medications and use bronchodilators as prescribed by their healthcare providers. Because the use of nebulized medications is thought to increase the risk of transmission of influenza, medications administered orally or by MDI are preferred. Healthcare providers should consider providing extra prescriptions or supplies of quick relief and controller medications, including systemic steroids as indicated, for use by patients with asthma in advance of the pandemic. Healthcare providers should also provide explicit instructions for monitoring these patients at home, tailored to the needs of each patient, including instructions regarding when to seek medical care urgently.

### **Getting Help**

During the pandemic, influenza patients and their caregivers at home will need access to medical advice by telephone. This resource may reasonably be expected to reduce the risk of serious morbidity and mortality at home while relieving the burden on clinics and hospitals of triaging and managing patients that can be safely treated at home.

Patients with chronic diseases (asthma, cardiovascular disease, severe neuromuscular disease, diabetes, renal failure, immunocompromising conditions, etc.) should be encouraged to maintain close contact with the healthcare providers who manage these diseases during the course of their illness with influenza. Patients who are pregnant should be encouraged to contact their prenatal care provider as well.

In addition, individuals with influenza and their caregivers should be encouraged to seek medical advice in the following situations:

1. Fever in patients under 2 months of age, or in the immunocompromised
2. Fever uncontrolled by antipyretics
3. Fever persisting for more than 3 days, or reappearing after a prolonged period without fever (suggests secondary bacterial infection)
4. Signs of dehydration (dry mouth, dry eyes, decreased urine output, doughy or loose skin, rapid heart rate)
5. Wheezing or difficulty breathing
6. Shortness of breath
7. Signs of respiratory distress (e.g., grunting, nasal flaring, retractions of the chest wall)
8. Bloody sputum
9. Chest pain
10. Croupy cough (may suggest bacterial tracheitis)
11. Severe ear pain or severe muscle pain
12. Changes in mental status, irritability
13. Protracted vomiting.

The attached algorithm for telephone triage and advice (**Tool 26**) is suggested for use by advice nurses on the Public Health Information Line (PHIL) and similar phone banks throughout the county. Physicians, hospitals and clinics should plan to utilize their existing systems for telephone triage and advice, and should consider adapting this algorithm for their own purposes.

Healthcare providers unable to handle the volume of influenza-related calls during the pandemic may refer patients calling with influenza-like illness to PHIL.

## **FATALITY MANAGEMENT**

Due to significantly elevated mortality rates during an influenza pandemic, appropriate management and guardianship of the deceased will be a matter of increased concern. Normal and routine methods for the processing and handling of the deceased may have to be modified to accommodate anticipated surge during peak pandemic attack periods. Furthermore, it is anticipated that mutual aid resources, such as the Disaster Mortuary Assistance Team (DMORT), will not be readily available due to the potential wide-spread effects of an influenza pandemic.

Surge capacity for the management of the deceased (including body storage) must be addressed by various public and private organizations. Capacity assessment should include normal (existing) operations and scenarios of surge conditions. In this regard, body storage capacities must be assessed in the following areas:

1. Acute care hospitals
2. County Coroner's Office
3. Private mortuary services.

Plans and procedures should be developed by organizations (associated with the areas listed above) to address the development of surge capacity for body management and storage.

The Santa Clara County Coroner and Medical Examiner's Office will be developing and implementing modified policies and procedures for response to calls for deaths in non-hospital settings, such as at home, alternate care centers, hotels, etc. These modified policies and procedure will enhance system capacities, and ensure efficient and timely management of deaths during an influenza pandemic.

## Module V – Clinical Guidelines and Disease Management Tools

- Tool 10 – Santa Clara County Physician Alert on Avian Influenza dated December 9, 2005  
(includes reporting form for novel influenza infections and laboratory specimen  
submittal form)
- Tool 21 – Home Isolation Checklist
- Tool 23 – Plan A for the use of antivirals – no vaccine; Plan B for the use of antivirals – vaccine  
available
- Tool 24 – Tool for vaccine monitoring and data collection (to be developed)
- Tool 25– Plan for Vaccination with Strain-specific Influenza Vaccine during an Influenza  
Pandemic
- Tool 26 – Algorithm for telephone triage (to be developed)
- Tool 27 – Santa Clara County Physician Alert on Tamiflu dated November 4, 2005
- Tool 12 – Santa Clara County Public Health Laboratory Community Update (2005-4) dated  
December 29, 2005
- Tool 28 – Pocket Website Reference Tool
- Tool 29 – Figure 1: Clinical Algorithm for Case Management – Alert Period, with footnotes
- Tool 30 – Figure 2: Clinical Algorithm for Case Management – Pandemic Period, with footnotes
- Tool 31 – Santa Clara County Public Health Laboratory Guidelines for Collecting and Shipping  
Specimens for Influenza A (H5N1) Diagnostics
- Tool 32 – Clinical Triage Guidelines during Pandemic Critical Resources Stage
- Tool 33 – Fluids Suitable for Maintenance of Hydration and Management of Mild Dehydration for  
Influenza Patients in the Home Setting
- Tool 34 – Guidelines for the management of community-acquired pneumonia (CAP) during an  
influenza pandemic
- Tool 35 – Empiric antibiotic regimens for community-acquired pneumonia during an influenza  
Pandemic
- Tool 36 – Influenza Antiviral Medications – Indications and Dosage Table
- Tool 37 – Patient Home Care Handout (to be developed)
- Tool 40 – Your Guide to Preparing for Pandemic Flu
- Tool 42– Household Flu Preparedness Checklist

# Pandemic Influenza

Preparedness & Response Plan

Module VI

## Module VI Risk Communications and Public Education



**Public Health Department**  
Santa Clara Valley Health & Hospital System



DRAFT



# Critical Capacity Module VI

## Risk Communication & Public Education

### INTRODUCTION

The ability to implement communication strategies and actions before and during an influenza pandemic is a critical capacity because such communication supports effective preparedness and response efforts. Strong risk communications and public outreach activities are conducted in order to build trust, confidence and cooperation. The goal is to prevent fear-driven and potentially damaging public responses to a pandemic influenza crisis.

It is important to remember that the public is more likely to respond and cooperate more readily if they are involved in the discussions and planning for pandemic influenza, have general knowledge of situation, aware of the issues and concerns that are to be addressed, and understand their individual role and responsibilities. All risk communication strategies will keep these points in mind.

This module will help guide and prepare the Public Information Office and the Public Health Department in communicating key messages to the general public, the news media, health care providers and other partners (business, schools, local government, etc.) before, during and after a pandemic influenza.

Overall, risk communications works to convey to the general public the need for preparedness and not 'business as usual', develops central messages and materials to be shared broadly with public and private sectors, and provides support to Public Health Department staff working with key partners.

Message development will determine the type of information to convey, as well as deciding what messages are to be delivered prior to and during a pandemic. Key messages include informing the public about the potential threat and building a solid foundation of information on which future actions can be based. Additional messages and materials may need to be developed and or updated as the situation dictates.

Another component of this module includes spokesperson preparation and trainings, coordination of message development, and communication activities conducted with outside partners, agencies and organizations.

All messages are developed with key Public Health Department staff and are approved by the Health Officer. During the course of pre-event activities and especially during a pandemic influenza event, messages and other information will be updated and customized.

For specifics regarding operations and staffing of the Public Information Officer during an emergency or disaster, please refer to the Santa Clara County Public Health Department's Risk Communication Plan ([www.sccphd.org](http://www.sccphd.org)).

### **Desired Outcomes**

1. Provide timely and accurate pre-event information to the public about pandemic influenza, pandemic influenza preparedness and actions, as well as Public Health Department plans and response.
2. During a pandemic event, provide the most current and accurate information including what is happening, what is being done and what people can do to protect themselves.

## **COMMUNICATING WITH THE GENERAL PUBLIC**

### **Message Development**

#### ***Alert Period***

1. Develop key messages for printed materials, public presentations, or for the news media.
2. Provide a solid foundation of information upon which future actions can be based.
3. Key messages address Public Health Department activities, including planning efforts, as well as avian influenza education, pandemic influenza and general preparations. A description of key messages is included in the final section of this module.

#### ***Pandemic Period***

1. Update and further develop key messages as the situation warrants.
2. Messages are used primarily for communicating key actions to the general public through the news media.

3. Materials will be posted to the website as they are developed.

## **Public Education & Awareness Campaign**

### ***Alert Period***

1. Conduct a public education and awareness campaign as resources allow.
2. Key message are used in the various components of the campaign, which is directed to the general public and conducted in three languages: English, Spanish and Vietnamese.

Depending on resources, the following tools may be utilized in a public education and awareness campaign:

- Your Guide to Preparing for Pandemic Flu (**Tool 38**)
- Bill inserts
- Web posting
- Scripts
- Radio ads and PSAs
- Print ads, San Jose Mercury News wrap, and stickers
- Theater and mall signs
- Bus shelters, bus interior signs, bus boards
- Billboards
- Television ads

## **Material Development**

### ***Alert Period***

1. Develop materials providing information to the general public, media and healthcare and other partners.
2. All materials will be posted to the Public Health Web site as they are completed.

The following tools are included in the appendices:

- Pandemic Influenza Fact Sheet
- Health Officer Q&A
- Cover Your Cough Poster (Tool 39)
- Wash Your Hands Poster (Tool 39)
- Your Guide to Pandemic Flu Preparedness

### ***Pandemic Period***

1. Update current materials and develop new materials as the situation warrants.
2. Materials will be posted to the website as they are developed.

### **Public Health Information Line**

#### ***Alert Period***

The Public Health Information Line (PHIL) includes pre-recorded scripts in three languages: English, Spanish and Vietnamese. The PHIL recordings will reflect updated pandemic influenza information.

The SCCPHD will finalize a plan for using Valley Connections to increase information line capacity during a pandemic and conduct briefings of the appropriate staff.

#### ***Pandemic Period***

PHIL will be fully activated for responding to calls from the general public. Scripts will be updated and staff will be briefed at regular intervals.

## **WORKING WITH THE NEWS MEDIA**

### **Media Information**

#### ***Alert Period***

Develop a packet of materials for the news media. The packet includes SCC Public Health Department materials as well as approved outside materials. These materials include samples

of public education materials, guidelines for business planning, and guidelines for personal protection.

The following tools are included in the appendices:

- Pandemic Flu Fact Sheet (Tool 40)
- Health Officer Q&A (Tool 41)
- Cover Your Cough Poster
- Wash Your Hands Poster
- Your Guide to Pandemic Flu Preparedness

## **Media Communications**

### ***Alert Period***

1. Conduct media informational briefings, which can be held on a one-on-one basis or in small/large groups. Information developed for the general public is provided.
2. Conduct additional media briefings and interviews as needed.

The following tools will be developed:

- Media Packets including information for the general public and risk communication information for journalists
- Media Updates

### ***Pandemic Period***

Refer to the SCC Public Health Risk Communications Plan for a complete description of risk communication implementation.

## **Media Preparations**

### ***Alert Period***

1. Identify and train spokespersons on specific pandemic influenza risk communications.
2. Conduct an informational training with healthcare provider PIOs and appropriate members of the PIO Network.

The following tools will be developed:

- Talking points
- Training format and/or outside vendor
- Training materials

#### ***Pandemic Period***

Refer to the SCC Public Health Risk Communications Plan for a complete description of risk communication implementation.

## **COORDINATE WITH HEALTHCARE PUBLIC INFORMATION OFFICERS**

### **Information Packets**

#### ***Alert Period***

Develop packets of information for healthcare providers to distribute to employees, patients, clients and visitors. The packet includes SCC Public Health Department materials as well as approved outside materials. Samples of public education materials are included.

The following tools will be developed:

- Fact Sheets – Pandemic Flu, Avian Flu, Isolation & Quarantine
- Frequently Asked Questions
- Health Officer Q&A
- Pandemic Influenza Updates
- Other materials as determined and approved

#### ***Pandemic Period***

Refer to the SCC Public Health Risk Communications Plan for a complete description of risk communication implementation.

### **Provide Current Information**

#### ***Alert Period***

Inform healthcare provider PIOs about Public Health activities as well as any new developments regarding avian and/or pandemic influenza. Healthcare PIO information will be communicated primarily through existing meetings and email.

The following tools will be utilized for providing current information:

- Health Officer Q&A
- Pandemic Influenza Updates

### ***Pandemic Period***

Refer to the SCC Public Health Risk Communications Plan.

## **PROVIDE INFORMATION FOR PUBLIC HEALTH STAFF WORKING WITH KEY PARTNERS**

The Public Information Office provides support to Public Health staff and programs that are primarily responsible for the outreach, coordination and content development with key partners. These key partners include: businesses, city governments, colleges and universities, community-based and faith-based organizations, coroner, county government, emergency medical services and pre-hospital responders, environmental health, fire services, County legal/court system, law enforcement agencies, local healthcare system, mental health, news media, airport, and schools.

### **Provide Existing Materials**

#### ***Alert Period***

1. Make existing materials available for distribution.
2. Key partners may use these materials for distribution to employees, customers, clients, vendors, etc.
3. Post all information to the Public Health Department Web site.

The following tools will be provided to key partner organizations:

- Fact Sheets – Pandemic Flu, Avian Flu, Isolation & Quarantine
- Frequently Asked Questions

- Health Officer Q&A
- Pandemic Influenza Updates
- Scripts
- Other materials as developed

### **Key Partner Additional Materials**

#### ***Alert Period***

1. Develop additional materials as needed and approved.
2. Materials can be customized for a particular audience.
3. Public Health staff leads for key partners provide the approved content for these materials.
4. The Pandemic Influenza Preparedness and Response Planning Team approves additional materials for production.

The following tools will be provided to key partner organizations:

- Key partner specific Q&As
- Key partner scripts
- Cover Your Cough poster
- Wash Your Hands poster
- Other tools as identified and approved

### **KEY MESSAGES**

#### ***Alert Period – Phase 3***

During phase 3, human infections are occurring with a new subtype, but no human-to-human spread, or at most, rare instances of spread to a close contact.

#### ***Key Message #1 – About Pandemic Influenza***

Pandemic influenza is a worldwide outbreak of a new flu virus against which humans have limited or no natural immunity or protection. Pandemic influenza spreads easily



from person to person and will likely cause serious, possibly life-threatening disease in great numbers of people, even previously healthy people. Worldwide influenza pandemics are unpredictable, presenting challenges for the medical community, government, businesses...all of us.

Healthcare professionals, scientists and governments are closely watching the current bird flu situation in Asia and elsewhere in the world. Monitoring of the situation and watching for new cases, along with laboratory testing, will be key to identifying a new influenza virus strain that could cause the next pandemic.

For additional information, please see the Pandemic Flu Fact Sheet and Your Guide to Preparing for Pandemic Flu.

### ***Key Message #2 - Seasonal Flu versus Pandemic Influenza***

There are some key differences between seasonal flu and pandemic influenza.

- Seasonal flu usually follows a predictable pattern and usually happens every year in the winter. Pandemic influenza doesn't happen that often, only three times in the 20<sup>th</sup> century.
- There is usually some immunity or protection to seasonal flu built up in people from having the flu before. There is little or no immunity to a new pandemic influenza because it hasn't been seen before. The medical community can usually meet the public and patient needs during seasonal flu; during a pandemic they will be overwhelmed.
- Seasonal flu vaccines are developed every year to protect people from flu virus strains that we know about. Because these viruses have been passed around the population, a vaccine can be made early in the year. Any pandemic influenza vaccine developed early may not be effective because we do not know the exact virus strain of the pandemic. Once an effective vaccine is developed, it may not be available for several months because it takes that long to produce.
- Seasonal flu symptoms are fever; cough and muscle pain. With pandemic influenza, the symptoms may be different and more serious, and may cause more medical complications.

- Illness and death may be much higher during a pandemic than during annual seasonal community influenza outbreaks. Pandemic illness may happen in waves over several months.
- Seasonal flu causes a small impact on the community and local economy because people stay home sick from work and school. A pandemic will have a much larger impact because many more people will be sick and unable to go to work or school. Also, to help limit the spread of disease there could be travel restrictions, school closings, limited business hours or closings and cancellation of public gatherings. A pandemic of influenza would impact our local economy as well as the US and world economies.

### ***Key Message #3 – About Bird Flu***

Avian influenza (flu) is also known as bird flu. This is a non-human influenza virus, which causes infection in birds. Bird flu viruses do not usually infect humans, but this latest outbreak of bird flu has infected people. When the illness infects people it is very serious. It has not been found in birds or people in the United States.

People get bird flu from close contact with infected birds. A person can catch bird flu when a person breathes in bird dropping particles from an infected bird. People may also get the virus by eating undercooked poultry (of an infected bird). You cannot get the virus by eating properly cooked poultry or eggs so be sure your poultry is fully cooked.

Scientists and health professionals are concerned about the bird flu because the current virus in birds may change and develop into a virus that will spread easily from one person to another, causing the next influenza pandemic in humans. Because it is not possible to stop or prevent a pandemic once it begins, pandemic influenza can cause serious illness and death.

### ***Key Message #4 – SCC Public Health Department Preparations***

Santa Clara County Public Health Department is preparing for pandemic influenza by:

- Developing a coordinated strategy and plan to prepare for and respond to pandemic influenza.

- Educating healthcare workers and the local medical community about pandemic influenza, infection control practices and guidelines, pandemic influenza testing, diagnosis, and reporting.
- Implementing local surveillance systems.
- Developing guidelines for minimizing the spread of disease in different non-healthcare settings such as schools and businesses.
- Establishing guidelines for the use of antiviral medications.
- Finalizing plans for the rapid distribution of vaccine (once the vaccine is available).
- Developing materials to educate the public about the risk of pandemic influenza and provide information about how people can protect themselves and their families, including how to limit the spread of the disease at home.

***Key Message #5 – General Individual Preparedness***

You can prepare yourself and your family for pandemic influenza by reducing your chances of getting sick. You can also play an important part in helping to limit the spread of disease. A Household Flu Preparedness Checklist is included in the appendices (Tool 42).

- Stay healthy by eating a balanced diet, exercising daily, getting enough rest and drinking fluids. And get your seasonal flu shot.
- Stay informed by keeping up-to-date on a possible pandemic by listening to radio and television new, reading news stories and checking out the Web.
- Go to [www.pandemicflu.gov](http://www.pandemicflu.gov) for general information about pandemic influenza and other health related news. At [www.redcross.org](http://www.redcross.org) you can find information to make your own emergency preparation plan and kit for use in any emergency. And [www.sccphd.org](http://www.sccphd.org) will have more information on pandemic influenza as well as a Pandemic Flu Fact Sheet and Your Guide for Pandemic Flu Preparedness.
- These common-sense steps can help stop the spread of disease:
  1. Wash your hands frequently using soap and water.
  2. Cover your cough and sneezes with tissues. Cough or sneeze into your sleeve. Put used tissues in the trash and then wash your hands.
  3. If you get sick, stay home and away from others as much as possible.

4. Don't send sick children to school or daycare.
5. Avoid close contact with people who are sick.

***Key Message #6 – Individual Emergency Preparedness Kit***

Since so many people could get sick during a pandemic, services and supplies we count on everyday may not be available. Every person and family could be on their own for a while. This makes being prepared even more important. Make sure you have the following items in your emergency preparedness kit.

1. Two weeks worth of food for you and your family. This should be food that does not need refrigeration. Foods like canned meats and fish, beans, soups and fruits, and dry goods like flour, salt and sugar are good choices.
2. Water stored in sealed, unbreakable containers. If water service is disrupted, plan on one gallon for each person for each day, for up to two weeks.
3. Two weeks worth of prescription medicines.
4. Two weeks worth of ibuprofen or acetaminophen (Tylenol) for each person in the house for fever and pain. A two-week supply of cough medicine.
5. Rehydration Solution, for example Pedialyte for kids, Gatorade for adults and teens, to make sure they are getting enough of the right fluids. For children, especially infants and toddlers, a store-bought solution is strongly recommended.
6. Cell phone and charger.
7. Supply of facemasks and plastic gloves. These will help protect you, especially if you are taking care of family members who are sick with the disease.
8. Disinfectants and chlorine bleach.

You can make your own Rehydration Solution for adults and teens in your family. Mix 4 cups of clean water with 2 tablespoons of sugar and ½ teaspoon of salt, until the sugar disappears. Drink the solution at room temperature and do not boil the solution because that will reduce its helpfulness.

***Key Message #7 – Regular Flu Vaccine versus Vaccine for Pandemic Influenza***

A vaccine for regular seasonal flu is developed each year, before the next flu season. This vaccine is based on known flu virus strains that are circulating in the world. Because the next new pandemic strain is unknown, any vaccine for pandemic influenza that may be developed early may not be effective. Scientists are working to speed up the production of any future pandemic influenza vaccine.

The plan is for everyone to receive the pandemic influenza vaccine once it is developed. Since it will take time to produce enough vaccine for everyone, people who provide health care services, as well as police, fire and emergency personnel will get their vaccines first. This is because we need these workers to perform their duties for the safety, well-being and protection of our community.

***Key Message #8 - Antivirals versus Antibiotics (to be developed)***

Vaccines are used to prevent influenza. Antiviral medications are used to treat people with influenza. During pandemic influenza, medications such as Tamiflu may be an effective treatment.

***Alert Period – Phase 4***

During this phase, small clusters of human infections with limited human-to-human transmission but spread is highly localized suggesting the virus is not well adapted to humans.

***Key Message #1 - Update***

The situation has changed and more people have become infected by the current strain of avian influenza. It looks like this strain is adapting, but it still has not figured out how to spread easily from person to person. Since global influenza viruses are unpredictable, we do not know what will happen next. But scientists and healthcare professionals worldwide are monitoring the situation closely.

***Key Message #2 – Repeat and update previous key messages.***

1. General Individual Preparedness – repeat and update as needed.
2. Individual Emergency Preparedness Kit – repeat and update as needed.

***Key Message #3 – Basic Public Health Instructions during a Pandemic***

Throughout a pandemic, you may be asked or required to do things to help limit the spread of disease in our community. If local public health officials or your healthcare provider ask you to take certain actions, please follow those instructions. Here are some examples of what you may be asked or required to do.

1. When you are sick, stay home. Children should not go to school or day care if they are sick. Staying home will be absolutely necessary during pandemic influenza to limit the spread of disease.
2. Even though you may be healthy, you could be asked to stay away from gatherings of people such as sporting events, movies and festivals. During a pandemic influenza, these kinds of events could be cancelled because large gatherings of people spread the influenza virus.
3. Isolation is for people who are already ill. When someone is isolated her or she is separated from people who are healthy, which can help to slow the spread of the disease. People who are isolated can be cared for in their homes, in hospitals or in other healthcare settings. Isolation is usually voluntary, but local, state and federal governments have the power to require the isolation of sick people to protect the public.
4. Quarantine is for people who have been exposed to the virus but are not sick. When someone is placed in quarantine her or she is also separated from others. Even though the person is not sick at the moment, he or she was exposed to the disease and may still become infectious and then spread the disease to others. Quarantine can help to slow this from happening.

#### ***Key Message #4 – About the Vaccine***

Vaccine efforts are underway and it could take many months to develop an effective pandemic influenza vaccine. So taking practical and common sense steps, such as washing your hands frequently, covering your mouth and nose with tissues while sneezing or coughing, and staying home from work, school or day care if you are sick, is very important in helping to limit the spread of disease.

Once the vaccine is ready, the plan is for everyone to receive the pandemic influenza vaccine. Since it will not all be ready at once, people who provide health care services, as well as police, fire and other emergency personnel will receive their vaccines first.

This is because we need these workers to perform their duties for the safety, well-being and protection of our community.

Family members of these workers will also be among the first to be vaccinated. The reason for this is our community cannot afford for these workers to stay home to take care of sick family members. We need nurses, doctors, fire, police and emergency workers doing their jobs. We don't need them at home because their families are sick. As soon as possible, we will vaccinate as many members of our community as possible.

***Key Message #5 - How much warning will we have if a pandemic starts?***

Advance warning for the U.S. will depend on a few factors, the main one being how quickly the virus is identified. When a new human influenza virus is identified and it starts spreading easily among people, we'll know we have a pandemic.

If the new virus starts outside the U.S., limitation on travel may be put in place to slow its coming into our country. You can't stop a pandemic once it starts and it's difficult to guess how long it will take to enter the country. But once we know it has started, we will put our Pandemic Flu plans into action.

***Key Message #6 – How fast would pandemic influenza spread?***

It is likely to spread very quickly because influenza is very contagious and is spread easily from person to person. With pandemic influenza, people will have little or no immunity so more people are likely to be sick, and they are likely to infect more people.

It is important that individuals do everything they can to limit their risks and slow the spread of the disease. (Repeat Individual Preparedness messages.)

A pandemic influenza may make for changes in our daily lives. We may need to limit travel, close schools and cancel public gatherings to slow the spread of this serious public health threat. It will be very important for people to cooperate with local, state and federal measures that may be put into place to protect our residents' health. (Repeat previous Public Health Instructions and add any new ones.)

***Key Message #7 – How many people are likely to get sick in a pandemic? How many will die?***

The results of pandemic influenza are not easy to predict. In the past, one-third of the people in the U.S. got sick during the 1918 pandemic. Historically, most people who got sick recovered. Since a pandemic is a new influenza virus, we don't really know who

may be a greater risk for illness and death. Generally, people who have health problems, who have weakened immune systems, and older people tend to be at higher risk for disease and serious illness.

### ***Alert Period – Phase 5***

During phase 5, large clusters of human infections are seen, but human-to-human spread is localized, suggesting the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible.

### ***Key Message #1 - Update***

The avian influenza strain is changing and finding better ways to infect more people. Even though more people have become infected, the virus has not spread past the ---- area. Global influenza viruses are unpredictable so at this point we do not know if this strain will become fully transmissible and spread to other parts of the world.

But because this latest development puts us closer to a possible pandemic, we are stepping up our local preparedness efforts. The Public Health Department is working with our local medical community, including all the area's hospitals as well as other healthcare facilities, to closely monitor local surveillance systems. We continue to educate healthcare workers and the local medical community about pandemic influenza, infection control practices and guidelines, pandemic influenza testing, diagnosis, and reporting, and we are finalizing medical guidelines based on the latest information from the Centers for Disease Control and Prevention.

If the pandemic does happen, travel restrictions and isolation and quarantine procedures may limit or slow the spread of pandemic influenza in its earliest stages. But these measures won't be as effective once the pandemic is widespread. It is important to understand other actions, such as limiting travel, closing schools and canceling public gatherings, may be necessary to limit or slow the spread of disease.

### ***Key Message #2 – Update and repeat previous key messages as needed.***

The Santa Clara County Public Health Department will be distributing guidelines for minimizing the spread of disease in healthcare and non-healthcare settings. We encourage every individual, business and organization in this community to be responsible for their own preparedness.



1. Pay particular attention to individual preparedness messages.
2. General Individual Preparedness – repeat and update as needed.
3. Individual Emergency Preparedness Kit – repeat and update as needed.
4. Basic PH Instructions During a Pandemic – repeat, update as needed.
5. About the Vaccine - repeat, update as needed.
6. Prevent the Spread of Disease at Home – see below, update as needed.

***Key Message #3 - Limit the Spread of Disease at Home***

If you or a household member becomes ill during pandemic influenza and are being cared for at home, follow these instructions to control the spread of disease in the home.

Isolate the ill person WITHIN your home.

1. The person who is ill should not leave the house except for being taken to a medical appointment. The sick person may have to stay home for as long as two weeks after symptoms begin, even if they are feeling better. Do not allow visitors while the person is sick.
2. Designate a room(s) only for the ill person(s) so they are separated from other household members. The room(s) should have a door that can be closed and a window that can open to get fresh air into the room.
3. The ill person should wear a protective mask when anyone is in the same room or car. People in the room or car with the ill person should also wear a protective mask.
4. Disposable gloves may be used when cleaning or disinfecting rooms where the sick person has been.

Wash hands with soap or use alcohol-based hand rubs.

1. Everyone in the household - and it is important to remind children - should wash their hands with soap and water between contacts with others, before preparing food, and before eating.
2. Wash hands after touching tissues, surfaces soiled with saliva or nose drainage or any objects or materials that could be contaminated, and after taking off masks or gloves.
3. Wash your hands after having contact with anyone who is ill or may be ill.

4. If your hands are not visibly dirty, think about using an alcohol-based hand rub because it won't dry your skin as much as soap and water.

Cover noses and mouths when sneezing or coughing.

1. Remind children and others to cover their noses and mouths with a tissue when sneezing or coughing, or to sneeze or cough into their sleeves.
2. Put used tissues in a garbage bag and then wash hands with soap and water.
3. Even when a person is wearing a mask, they should cough or sneeze into their sleeve.

Protect other members of the household

1. Wear a mask when you are within 3 feet of the sick person.
2. Masks should be changed and thrown away when they are moist or get wet. Wash your hands or use alcohol-based hand rub after touching or throwing away a mask.
3. Wear gloves if you might touch the ill person's saliva or nose drainage. Put the gloves into a garbage bag immediately after use.

Circulate fresh air in your home.

1. Fresh air can help decrease the spread of respiratory illness so keep windows open as the climate permits, and if you need to, use a fan to circulate fresh air.
2. Sunlight (UV light) can kill influenza virus. Open the shades and get sunlight into the ill person's room.

Watch all household members for symptoms of respiratory illness.

1. Contact your healthcare provider if a fever or other symptoms such as chills, cough, sore throat, headache, or muscle aches develop.

Keep the household environment clean.

1. On a daily basis, clean surfaces and commonly shared items like microwaves, refrigerator handles, phones, remote controls, doorknobs and handles, toilet seats and handles, faucets, light switches and toys. Use a labeled household disinfectant or chlorine bleach mixture (see below).
2. Store-brand chlorine bleach can be used as a disinfectant by mixing  $\frac{1}{4}$  cup chlorine bleach with 1 gallon of cool water.

3. Laundry can be washed in your washing machine with warm or cold water and detergent. You do not need to separate linens and laundry used by the ill person from other household laundry. When handling soiled laundry be careful not to “hug” the items close to you. Wash your hands after handling soiled laundry.
4. Dishes and eating utensils can be washed either in a dishwasher or by hand with warm water and soap. You do not need to keep the eating utensils used by the ill person separate.

Make sure supplies are on hand.

1. Keep supplies of masks, gloves, soap, tissues, paper towels and cleaning supplies on hand.
2. Make sure all sinks and restrooms are stocked with soap and paper towels.
3. Make sure that tissues are available in all bedrooms and common areas like living, dining, family, and computer rooms.

#### ***Key Message #4 - Prevent the Spread of Disease at Work***

Once your employees begin to become ill during pandemic influenza, the following instructions can help to limit the spread of disease in the workplace.

Limit contact with people who are ill at work.

1. Those with symptoms of influenza (fever, headache, cough, or sore throat) should be sent home. If they cannot go home immediately, they should be isolated in a separate and well-ventilated room.
2. Limit contact as much as possible between ill and well people. The ill person(s) should wear a protective mask(s) and anyone who must be in the room with the ill person should also wear a protective mask.
3. When transporting the ill person(s) in a car, the people in the car – sick or well - should wear protective masks.

Promote good hygiene through hand washing and cough etiquette.

1. Encourage employees to regularly wash their hands with soap and water or use an alcohol-based hand rub. It is important to wash hands between contacts with others, before preparing food, and before eating.
2. If possible, provide alcohol-based hand rub dispensers.

3. Encourage employees to cover their noses and mouths with a tissue when sneezing or coughing, or to sneeze or cough into their sleeves. Even when wearing a mask, they should cough or sneeze into their sleeve.
4. Employees should put used tissues in a garbage bag or wastebasket, and then wash hands with soap and water.

Keep the work environment clean and circulate fresh air.

1. Fresh air can help decrease the spread of respiratory illness so keep windows open as the climate permits, and if you need to, use a fan to circulate fresh air.
2. On a regular basis, clean surfaces and commonly shared items like phones, elevators or staircases, doorknobs and handles, toilet seats and handles, faucets, light switches, microwaves, etc. Use a labeled household disinfectant or chlorine bleach mixture (see below).

Make sure supplies are on hand.

1. Keep supplies of masks, gloves, soap, tissues, paper towels, garbage bags, and cleaning supplies on hand.
2. Make sure all sinks and restrooms are stocked with soap and paper towels.
3. Make sure that tissues are available in common areas such as conference rooms, cafeterias and break rooms.
4. Store-brand chlorine bleach can be used as a disinfectant by mixing  $\frac{1}{4}$  cup chlorine bleach with 1 gallon of cool water.

### ***Key Message #5 - Prevent the Spread of Disease at School or Day Care***

Once your students and staff begin to become ill during pandemic influenza, the following instructions can help to limit the spread of disease at schools or in a daycare setting.

Limit contact with people who are ill at school or daycare.

1. Educate students, parents, teachers and other workers that they must stay away from school or daycare while they are ill.
2. Those with symptoms of influenza (fever, headache, cough, or sore throat) should be sent home. If they cannot go home immediately, they should be isolated in a separate and well-ventilated room.

3. Limit contact as much as possible between ill and well people. The ill person(s) should wear a protective mask(s) and anyone who must be in the room with the ill person should also wear a protective mask.
4. When transporting the ill person(s) in a car, the people in the car – sick or well - should wear protective masks.

Promote good hygiene through hand washing and cough etiquette.

1. Encourage staff and students to regularly wash their hands with soap and water or use an alcohol-based hand rub. It is important to wash hands between contacts with others, before preparing food, and before eating.
2. If possible, provide alcohol-based hand rub dispensers.
3. Encourage staff and students to cover their noses and mouths with a tissue when sneezing or coughing, or to sneeze or cough into their sleeves. Even when wearing a mask, they should cough or sneeze into their sleeve.
4. Make sure used tissues are put in a garbage bag or wastebasket, and hands are washed with soap and water after handling tissues.

Keep the school or day care environment clean and circulate fresh air.

1. Fresh air can help decrease the spread of respiratory illness so keep windows open as the climate permits, and if you need to, use a fan to circulate fresh air.
2. On a regular basis, clean surfaces and commonly shared items like phones, supplies, doorknobs and handles, toilet seats and handles, faucets, light switches, microwaves, etc. Use a labeled household disinfectant or chlorine bleach mixture (see below).

Make sure supplies are on hand.

1. Keep supplies of masks, gloves, soap, tissues, paper towels, garbage bags, and cleaning supplies on hand.
2. Make sure all sinks and restrooms are stocked with soap and paper towels.
3. Make sure that tissues are available in common areas such as conference rooms, cafeterias and break rooms.
4. Store-brand chlorine bleach can be used as a disinfectant by mixing  $\frac{1}{4}$  cup chlorine bleach with 1 gallon of cool water.

***Key Message #6 – How worried should people be about pandemic influenza?***

People should be very concerned because we have moved closer to a possible pandemic. But right now, being prepared and staying informed are the best responses. Please remember, at this time there is no pandemic in the U.S. so individuals, businesses, communities still have time to prepare.

By preparing for pandemic influenza, you can reduce your risks for getting sick and help limit the spread of the disease. Everyone should be reviewing emergency plans and making sure he or she has what will be needed if pandemic influenza comes to the U.S. The SCCPHD recommends that everyone prepare as for other emergencies, and then take the additional steps we are recommending in preparing for pandemic influenza.

(Repeat General Individual Preparedness, Individual Emergency Preparedness Kit, Prevent the Spread of Disease at Home, other infection control measures.)

Use the information about limiting the spread of disease and other infection control actions to take care of yourself and your family. Share what you've learned with others. And if you are concerned about your health, talk to your physician, our staff at the Public Health Department or another trusted healthcare provider.

***Key Message #7 – Could terrorist be making and spreading an influenza virus for a pandemic?***

Experts believe this is highly unlikely. Making a pandemic influenza would require extraordinary scientific skills, equipment and resources. It is much more likely that terrorist would resort to bombings and other activities that are easier to carry out.

***Key Message #8 - Signs and Symptoms of Pandemic Influenza – to be developed.***

***Key Messages #9 - Mental Health Messages – to be developed.***

***Key Message #10 – Any Additional Public Health Instructions – to be developed.***

***Pandemic Period – Phase 6***

During this phase a pandemic is declared. There is increased and sustained transmission in the general population.

***Key Message #1 - Update***

Pandemic influenza has been declared. I understand this is very unsettling and alarming. Now is the time for thoughtful action, by each and every one of us.

***Key Messages #2 – Update and repeat key messages from previous phases.***

1. General Individual Preparedness – repeat and update as needed.
2. Individual Emergency Preparedness Kit – repeat and update as needed.
3. Basic PH Instructions During a Pandemic – repeat, update as needed.
4. SCC PH Preparations - repeat, update as needed.
5. Prevent the Spread of Disease at Home – update as needed.
6. Prevent the Spread of Disease at Work – update as needed.
7. Prevent the Spread of Disease at School or Day Care – update as needed.
8. About the Vaccine – include latest on vaccine status and how mass vaccination would work.

***Key Messages #3 – Additional SCC Public Health Instructions – to be developed.***

The Public Health Department is working with other local agencies, other public health departments, and the state to coordinate our efforts. Right now, here are the first steps we are asking people to take:

1. Public Health instructions on providing healthcare in the home
2. Possible closure of public gatherings and schools.

## **SPECIAL POPULATIONS CONSIDERATIONS**

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

1. Key messages delivered in multiple languages (English, Spanish, and Vietnamese and others as resources allow).
2. Key messages delivered in multiple communication modes.

3. Key messages delivered through grass-roots mechanisms (community- and faith-based) to people who are homeless, geographically or culturally isolated.
4. Key messages delivered to people who are homebound.

#### Module VI – Risk Communication and Public Education Tools

Tool 38 – Your Guide to Preparing for Pandemic Flu

Tool 39 – Posters “Cover Your Cough” and “Wash Your Hands”

Tool 40 – Pandemic Flu Fact Sheet

Tool 41 – Health Officer Q&A

Tool 42 – Household Flu Preparedness Checklist



# Pandemic Influenza

Preparedness & Response Plan

## Module VII Psychosocial Support



**Public Health Department**  
Santa Clara Valley Health & Hospital System



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# Critical Capacity Module VII

## Psychosocial Support

### INTRODUCTION

A critical capacity for an effective response is the ability to address the inevitable psychosocial impact of pandemic influenza. The professional and research literature on the psychosocial impact of natural and manmade disasters, has little mention of the emotional, mental, and behavioral impact of pandemic influenza. While pandemics appear to occur in every century, we have much to learn as to how to prepare and respond to the psychosocial impact of a worldwide pandemic in the 21<sup>st</sup> Century. Certainly stress has become a known factor of modern life, and we have learned a great deal on how to minimize disaster-related stress, however the prolonged and fluctuating stress that will accompany a pandemic in American communities will be unique and unlike anything experienced in the United States in the last half century. For this reason, it is critical that we put in motion a community learning process that enables us to be prepared for the psychological impact of a pandemic that will likely persist over several years.

Whereas past epidemics and disasters have generally not personally touched the majority of health care providers, pandemic influenza is expected to impact the system beyond the typical stress that has been associated with past crises and disasters, as staff will also have family members that are vulnerable to contracting the disease throughout the duration of the pandemic. The combination of both professional and family stresses will contribute to behavioral health reactions that will affect the ability of health care providers to perform their duties. This pandemic may last as long as 24 months. The fact that the pandemic will come in waves will very likely produce cumulative stress that accelerates performance impairment as the prolonged resurgence of infections and illness over the 24 months repeatedly occurs among health care providers.

### **Desired Outcomes**

The Santa Clara County Mental Health Department (MHD) will take the lead in developing the psychosocial support module of the current plan. This will be done in partnership with mental

health experts in the public and private sectors, as well as with the leadership of the various departments of the Santa Clara Valley Health and Hospital System. Desired outcomes of this module are:

1. Santa Clara County healthcare workers will be have the necessary knowledge and preparation to maintain their own psychological resilience during a prolonged influenza pandemic, including how to insure the emotional and psychological resilience of their families and other loved ones.
2. Santa Clara County health care workers, mental health workers, and their families will have the necessary knowledge, tools, and intervention strategies to respond to their own and others' (families, clients, community members) psychological needs during a prolonged influenza pandemic.
3. Community members and organizations will have the necessary knowledge, tools, and response strategies to address their own and others (families, employees, neighbors) psychological and emotional needs during a prolonged influenza pandemic.

### **Planning Assumptions**

1. A pandemic will result in significant psychological reactions in the general community, and will have a greater impact on healthcare workers. Individuals with pre-existing health and mental health conditions may also have higher rates of psychological disturbance during a pandemic. Studies of the impact of individuals isolated/quarantined for infectious diseases suggest that up to 30% of those exposed may develop persistent symptoms of depression and PTSD<sup>60</sup> (Post Traumatic Stress Disorder).
2. Increased length of time spent in isolation/quarantine (at home or in medical settings) has been associated with increased symptoms of PTSD. This finding suggests that isolation/quarantine itself, independent of acquaintance with or exposure to someone with illness, may be perceived as a personalized trauma.<sup>61</sup> Thus, it is assumed that

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<sup>60</sup> PTSD is an anxiety disorder characterized by avoiding stimuli associated with a traumatic event, re-experiencing the trauma, and hyper-arousal, such as increased vigilance. This disorder may develop after exposure to traumatic events that involve a life-threatening component, and a person's vulnerability to the development of PTSD can be increased if the trauma is perceived to be a personal assault.

<sup>61</sup> Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styra R. SARS control and psychological effects of quarantine, Toronto, Canada. Emerg Infect Dis. 2004;10:1206-12.

there will be significant psychological distress experienced throughout Santa Clara County in the event of pandemic influenza.

3. The MHD and mental health providers from the private and public sectors will have limited ability to mitigate the stress response that the entire community will endure, such as pervasive fear and the experience of helplessness, anxiety and grief.
4. Strategies to prepare and address psychological stress reactions among healthcare workers must be a priority in order to maximize the effectiveness of this group's response to a community-wide health crisis.
5. The most important tools we have are information about psychological reactions to prolonged stress exposure for various groups; remedial actions that can be employed to alleviate stress reactions; and "psychological inoculation" that emphasizes basic human resiliency and the ability of human beings to endure and overcome extreme and prolonged adversity.

### **Target Groups and Approaches**

Our challenge during alert and pandemic periods is to disseminate information and to provide support to our target groups, to plan and rehearse various scenarios, and ultimately to engage and put into play the knowledge they have acquired. Early education incorporated into a strong prevention strategy is the best approach, from a mental as well as physical health perspective, to assist individuals in coping. Public knowledge about the seriousness of the pandemic, that includes a variety of likely concrete scenarios with behavioral strategies to minimize psychological and emotional impact, will provide those affected with the psychosocial tools they will need to cope with the extreme stress that will surely accompany the pandemic experience.

As initial work, the MHD will develop and distribute general education material providing information and strategies for taking positive steps to psychologically prepare for the pandemic. This includes information about normal stress, how to recognize anticipatory stress, and how to reduce concerns and worries about a pandemic by becoming informed of how a pandemic is likely to unfold. In addition, specific training, educational materials and intervention strategies will be developed for three specific groups for implementation during alert and pandemic phases. Those target groups are:

1. **Healthcare Providers and Their Families:** Addressing and alleviating the accumulated stress experienced by healthcare providers, particularly when there are not enough responders over the two-year pandemic period, will be the highest priority of this initiative. MHD will develop specific educational and intervention strategies to address the anticipated psychological responses that health care providers will experience in both the alert and the pandemic periods. These strategies will need to be developed in collaboration with SCVHHS medical and public health staff in order to be aligned with likely simulations of the course of the pandemic. An essential component of the set of tools and interventions designed for this group is the education and preparation of the families of healthcare providers in order to minimize the conflict and pulls of family and professional obligations. It will be essential, given the expected duration of this pandemic that professionals and their families are made aware through conjoint and separate education strategies of the potential dilemmas they will face.
2. **Current and New Mental Health Clients:** The MHD offers a variety of services to approximately 18,000 individuals with serious mental illnesses of all ages each year through a broad range of Santa Clara County-run and contracted programs. An estimated 8,500 adults and seniors, and 4,000 children receive ongoing care at any time. Continuity of essential mental health care for current mental health clients and those with new serious psychiatric illness will be an additional priority. MHD will develop specialized educational materials in multiple languages, along with specific direct interventions (warm line<sup>62</sup>, crisis response, medication management, group de-briefing, telepsychiatry and telecounseling, etc.) that will be necessary during a pandemic. These materials and specific pandemic-related interventions will be incorporated into the MHD Continuity of Government Plan. This set of training curricula, educational tools and interventions will also be modeled to various likely scenarios expected with the pandemic and must take into consideration the possibility of a significantly reduced or homebound workforce.
3. **General Community:** The MHD will design and disseminate educational materials and training modules on community and neighborhood-based intervention strategies for the general community, businesses and organizations during the alert and pandemic periods. The information and suggested interventions will be based on self-help

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<sup>62</sup> Warm line refers to non-emergency advice and counseling telephone services that are available to various populations. In this case, specific warm lines would be made available to current mental health clients of the system.

strategies that can be employed by lay community members so that they can provide emotional and psychological support to those in distress when professional medical and psychological support are not available.

The primary partners responsible for this module include the Santa Clara County Public Health and Mental Health Departments, who will involve mental health providers in the private sector along with healthcare provider agencies. A thoroughly trained mental health network will be established to monitor reactions to the Pandemic Influenza, the effectiveness of psychosocial services, and to make recommendations for new psychosocial strategies to be employed. The following outlines specific work objectives to be completed in this module.

### ***Alert Period***

#### **Administrative Readiness Plan**

The Mental Health Administration (MHD) will identify and fulfill all preparatory administrative activities to establish the organizational infrastructure to support this plan within the MHD. This will include the following steps:

1. Train all mental health staff, including contract agency staff on the physical and mental health aspects of the influenza pandemic. Development of training curricula and handouts to be completed upon approval of funding and coordinated with other training modules included in this plan.
2. Update MHD Continuity of Government Plan and development of a supplement that addresses the activities outlined in this plan (Pandemic Influenza).
3. Prepare request for funding for response activities.
4. Establish and train a Mental Health Pandemic Readiness and Response Network of public and private providers to plan for, respond to, and monitor psychosocial reactions to the pandemic.
5. Modify MHD contracts requiring provider planning for and participation in community psychosocial response to a pandemic and other disasters.
6. Train community mental health professionals, other agency and department staff, in collaboration with Red Cross and other community organizations, to assist in the community response.

7. Develop culturally competent, age specific mental health educational materials in the five Medi-Cal threshold languages and as many other languages as possible to be used for general community education efforts.
8. Post all educational materials on the MHD Web site with established links to other pandemic-related websites.
9. Develop a Mental Health Speakers Bureau.
10. Develop an implementation plan to set up and operate #800 warm lines on short notice in collaboration with other pandemic response partners.

### **Health Care Provider Education and Intervention Development**

The MHD Department will provide training to administrators, managers, and supervisors of health care providers through provision of psychosocial support services. This will include the following steps:

1. Establish a workforce resilience program, in conjunction with health care provider agencies (such as hospitals and clinics). The program will be designed to prepare health care providers to cope with and recover from the social and psychological challenges of providing care in the event of a pandemic. Specific training curricula will be developed for the Alert Period and a calendar of trainings will be established. Particular attention will be given to “train the trainers” and to provide a **Healthcare Provider Psychological Readiness Tool Kit** so that health care provider systems will be able to provide their own training and educational materials to their employees. Specific materials will be developed on the following topic areas:
  - a. Supervisor strategies for maintaining a supportive work environment during a sustained epidemic period.
  - b. Educational materials on the prolonged emotional responses they may be experienced or observed in colleagues and families during the influenza pandemic.
  - c. Written materials to assist staff that have child-care or eldercare responsibilities or other special needs that might affect their ability to work during a pandemic.
2. Prepare workforce support training and materials and development of a speaker bureau. This training will include both didactic instruction and informational brochures covering the following:



- a. Normal behavior and psychological reactions to traumatic incidents and stress.
- b. Symptoms of stress that may be experienced during or after a traumatic incident.
- c. Post Traumatic Stress Disorder (PTSD): what are the signs and symptoms.
- d. Referring occupational workers for assessment and treatment.
- e. Normal reactions to a traumatic incident and the course of healing.
- f. Problematic Stress Responses.
- g. Symptoms of Acute Stress Disorder (ASD).
- h. Associated Disorders
  - i. Depression
  - ii. Substance Abuse
  - iii. Panic Disorder
  - iv. Obsessive-Compulsive Disorder
  - v. Sexual Dysfunction
  - vi. Eating Disorders
  - vii. Suicidal Ideation
- i. Bereavement and bereavement complications.
- j. Hyper-arousal signs and symptoms (e.g., agitation, sensory overload)
  - i. Effective arousal management
  - ii. Learning adaptive measures to manage arousal symptoms
  - iii. Daily relaxation and exercise.
- k. Psychological/Critical Incident Debriefing.
- l. Informational Handouts.

### **Family Members of Health Care Providers Education and Intervention Development**

As mentioned, a prolonged pandemic may affect healthcare workers and their families over many months. In order to prepare families for this eventuality, special training and educational materials will be developed and will include the following steps:

1. Design specific training for healthcare worker, spouses and children.
2. Develop a **Family Stress and Emotional Care Kit** to include:
  - a. Fact sheets regarding stress reactions among all ages
  - b. Phone trees for peer family support
  - c. Instructions for developing family support plans
  - d. Phone lists of key neighborhood and family supports
  - e. Self-help strategies for families with young children
  - f. Mental health consultation phone services and debriefing services
  - g. Linkage to available psychiatric and specialty mental health services.

### **Current Mental Health Clients Service Continuity Plan**

The MHD will provide comprehensive health educational information about the pandemic influenza including prevention strategies, methods for staying healthy, and medical treatment and self-care if one is infected and seeking assistance through the assigned case manager. Through their regular contacts with the clients, mental health department staff and those of contract agencies will assist clients to prepare in the event they (the clients) are impacted by the pandemic influenza, and in the event that mental health services are severely curtailed due to worker absences or diversion to other crisis activities. **Self care packets** will be developed and distributed to all clients and will include:

1. Fact sheets on signs and symptoms of stress reactions and PTSD
2. Phone list of key mental health contacts
3. Phone lists of self-help support
4. Phone lists of family and friends
5. Pre-written clinical self-care plan in the event of client being homebound or closure of mental health clinic.

## **General Community Education and Self-Help Intervention Development**

The MHD, in coordination with the Public Health Department and the Public Information Officer, will conduct a broad multilingual, multicultural community education campaign that will inform the public about the pandemic influenza and how to prepare mentally, physically and practically. Mental health providers will facilitate an informed community that is preparing to support its members during the pandemic through development of community and neighborhood readiness kits. The following activities will be included:

1. Train volunteers to provide community presentations on normal stress reactions to the pandemic and how to reduce the negative impact these reactions have on daily functioning.
2. Identify referral sources in the community that can provide support and guidance for residents. These sectors include the faith community, community organizations, schools and the general and ethnic media and other resources to be developed. These groups will reach out to the community, particularly the home bound to provide education, support and links to resources.

### ***Alert Period***

#### **Health Care Provider Interventions**

MHD will train and support Health Care Providers to manage emotional stress and family issues, and to build coping skills and resilience through supportive mental health techniques and communication tools that include:

1. Written educational materials.
2. Availability of informal drop-in debriefing groups at work sites to the extent possible. Information on management of agitated or desperate persons.
3. Telephone and in-person consultation regarding personal and family issues to the extent possible.
4. Guidance to distinguish between psychiatric disorders and common reactions to stress and trauma; and how to deal with the worried well with instructions for “just-in time” training.
5. Information on dealing with possible stigmatization related to their role in the pandemic response.

6. As feasible, on-site consultation in emergency rooms and community care sites to assist in alleviating the distress among the community and first responders.
7. Debriefing, support, crisis counseling and referral to mental health services as required.
8. Assignment of managers and supervisors of healthcare providers to:
  - a. Support responders in the field by maintaining frequent contact and providing mutual help in coping with daily stresses; providing access to activities that help stress, and providing behavioral services as requested.
  - b. Monitoring the occupational safety, health, and psychosocial well-being of central operations personnel and establishing rest and recuperations sites.
  - c. Enlisting employee assistance programs to provide family members with instrumental support (e.g., assistance obtaining food and medicine) and psychosocial support (e.g., bereavement counseling).
9. Post-deployment/assignment of supervisors and managers of healthcare providers may:
  - a. Provide on-going access to post-emergency psychosocial support services for responders and their families.
  - b. Conduct an on-going evaluation of the after-effects of the pandemic on the health, morale, and productivity of healthcare providers.

### **Mental Health Consumer and Family Intervention**

Current mental health clients will receive age-appropriate support services in relation to the pandemic influenza from their regular mental health service provider. The MHD will:

1. Identify and address system barriers to facilitate client access to most appropriate level of mental health treatment available when psychiatric services are curtailed due to workforce shortages, or reduction of staff.
2. Implement of self-help phone trees and peer support plans.
3. Implement psychiatric and pharmacy phone consultation service.
4. Implement counseling warm line.
5. Maintain updated listings of available emergency services options.

6. Coordinate with pandemic response partners to put in place specialized services for mental health consumers, such as health care centers, medical services, etc.

### **Family Members of Health Care Providers**

Mental health providers will assist family members heavily impacted by the stress of the pandemic influenza in order to support the health care providers in performing vital and critical emergency health care function through:

1. Provide written information on coping with stress.
2. Establish informal talk groups and volunteer peer support warm lines specifically for health care workers. Provide information for dealing with possible stigmatization related to the health worker role in the pandemic response.
3. Implement phone consultation with child mental health specialist.
4. Establish psychiatric and medical telephone consultation and web-based resources in coordination with pandemic response partners.

### **General Community Interventions**

The information/outreach will be directed to both the general public and populations at risk for acute stress reactions to the pandemic. Activities will include:

1. Establish a volunteer a multilingual warm line for community individuals in need of support, particularly for individuals who are isolated and homebound.
2. As required and as permitted by resources, make home visits to the home of ill homebound individuals at risk for acute negative reactions to the pandemic.
3. Distribute mental health educational materials to police, fire, and community outreach workers describing the acute reactions that are anticipated from the pandemic.
4. Establish internet based consultation, information and FAQs in coordination with pandemic response partners.

### **Administrative Response**

MHD will provide the following support necessary to successfully implement the psychosocial activities in this plan in coordination with pandemic response partners:

1. Coordinate and deploy all staff and volunteer resources in response to pandemic influenza.
2. Monitor reactions to the pandemic influenza and the effectiveness of psychosocial strategies, with the participation of the Mental Health Network and other pandemic response partners.
3. Make necessary changes in services to three groups to ensure maximum effectiveness of the psychosocial activities.
4. Coordinate and participate in the Operational Area and the Santa Clara County response systems (SEMS, Office of Emergency Services, Public Health Department Emergency Operations Center, etc.).

Module VII – Psychosocial Support Tools (to be developed)

Tool 43 – Informational handouts for various populations (general community, health care workers/families, mental health workers, consumers and their families).

Tool 44 – Psychological Preparedness Tool Kits for various populations (general community, health care workers/families, mental health workers, consumers and their families).

Tool 45 – Web-based FAQ's and Resource Information.

Tool 46 – Training Curricula for various target population trainings.

Tool 47 – Train the Trainer curricula and handouts.

Tool 48 – Warm Line Implementation Kits to instruct on the implementation of various resources and advise lines for different populations.

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# Pandemic Influenza

Preparedness & Response Plan

## Module VIII Essential Services

Module VIII



**Public Health Department**  
Santa Clara Valley Health & Hospital System



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# Critical Capacity Module VIII

## Preparing Essential Services for Continuity of Operations

### INTRODUCTION

A critical capacity of pandemic influenza preparedness and response is the ability for essential services to plan and implement continuity of operations. This module identifies and defines essential public services and describes the prioritization of response resources that will be necessary to support the maintenance and continuity of critical public service infrastructure during an influenza pandemic. Essential services are particular public and private sector organizations that provide services or products that support vital societal needs and/or critical infrastructure functions within the community.

Furthermore, this module is intended to provide guidance on pandemic influenza for essential public service organizations to assist in mitigating staffing shortages and ensuring continuity of operations.

While the Public Health Department's Emergency Operations Plan addresses all hazards, an influenza pandemic differs from many threats due to the magnitude and duration of its impact and the likelihood of subsequent waves of disease. An influenza pandemic will pose a distinct and serious threat to the residents of Santa Clara County with the disruption of critical community services due to incapacitation of the human infrastructure.

#### **Desired Outcomes**

1. Preparedness and response Continuity of Operations Plans in place for all essential services.
2. Effective implementation of Continuity of Operations Plan to maintain adequate infrastructure and to respond effectively to an influenza pandemic.

## **Planning Assumptions**

The following points should be considered as key planning assumptions for essential services:

1. Susceptibility to the pandemic influenza will be universal.
2. Efficient and sustained person-to-person transmission will signal an imminent pandemic.
3. The clinical attack rate will likely be 25-30% or higher in the overall population. Illness rates will be highest among school age children (40%).
4. Pandemic influenza will be widely dispersed geographically and potentially arrive in waves that could last several months at a time.
5. 25-30% of the work force could be absent from work due to illness, caring for an ill family member, or fear of being exposed to the illness. Actual rates of absenteeism will depend on the severity of the pandemic. Absenteeism may be higher for those employees who have children.
6. Absenteeism rate could last three to four months at a time.
7. Certain public health measures (closing schools) are likely to increase rates of absenteeism.
8. Travel bans, closing of schools and businesses, and cancellation of events could have major impact on communities and citizens.
9. Illness among supply chains and infrastructure service workers will affect business operations.
10. Pandemic period could last between 12 to 24 months.
11. Pandemic flu vaccines will likely not be available until 6 to 8 months after the start of pandemic.
12. Businesses can play a key role in the health and safety of their employees and customers, especially those with special needs and whose needs others may not as readily know.
13. The traditional health and hospital system capacity will be overwhelmed because these:
  - a. Workplaces will also have their high rate of absenteeism
  - b. The significant number of ill individuals seeking care.

## DEFINITION OF ESSENTIAL SERVICES

Essential service groups must be established to address the overall goal of reducing morbidity and mortality, and secondarily to reduce societal disruption. In order to ensure an optimal pandemic response, it will be imperative to provide as much protection as possible against influenza to healthcare workers and other essential service workers.

Essential service sectors are groups that will generally meet one or more of the following criteria:

1. Have increased demand placed on them during a pandemic to fulfill basic necessities and social needs
2. Directly support reduction in deaths and hospitalizations
3. Function in healthcare sector or emergency services.

For the purposes of pandemic influenza planning and role identification, essential service entities are defined and listed as follows (listed in alphabetical order):

- **Emergency Medical Services Provider Organizations**

This category includes all private and public ambulance providers and first response agency personnel. These workers are critical to maintaining the 911 emergency medical system and providing inter-facility transportation of patients.

- **Fire Service Agencies**

This category includes all duly authorized full-time and volunteer fire service personnel. These workers are critical to maintaining social functioning and civil order, and will contribute to a pandemic response by providing paramedical support at vaccination centers, point of distribution centers (PODs), and at other key locations.

- **Food Suppliers (non-restaurant)**

This category includes large wholesale and retail food suppliers and distributors. These services are critical to meet basic human needs.

- **Hospitals, Clinics and Other Licensed Medical Facilities**

This category includes all acute care hospital personnel, community medical clinic staff, mental health, psychiatric facility staff, and skilled nursing facility staff. These workers are critical to maintaining the healthcare delivery system at all levels.

- **Key Government Agencies and Officials**

This category includes local, state and federal government employees (within Santa Clara County) that provide key functions in regard to leadership, decision-making, general government oversight.

- **Law Enforcement Agencies**

This category includes all public police and other law enforcement personnel, including correctional facility staff, reserves and 911 dispatchers. These workers are critical to maintaining social functioning and civil order, and will contribute to a pandemic response by providing security to hospitals and alternate care sites, and will assist with the implementation of health officer directives.

- **Media Organizations**

This category includes primary print and electronic media organizations that have bases of operations within Santa Clara County. These organizations are essential for supporting risk communication to the public and the transmission of emergency public information during times of local emergency. It is anticipated that risk communication will be an important component of flu pandemic response.

- **Mortuary Services**

This category includes all mortuary and embalming services. These services are essential to protect environmental and public health associated from increased number of deaths due to the pandemic.

- **Public Health Services**

This category includes public health workers assigned to various disease investigation and response activities, staffing of Department Emergency Operations Center (DEOC), and other key duties associated with protection of public health. This group includes persons that may not have direct patient care duties, but who are essential for surveillance of the disease, allocation of public health resources for pandemic response, development and implementation of public health policy as part of the response.

- **Public Transportation Agencies**

This category includes organizations responsible for providing public bus service, and operation of train and light rail services. These services are essential to assure that the basic social and community infrastructure is not disrupted, as well as the transportation of persons affected by the pandemic virus.

- **Utility Services (water, sanitation, power and electricity, telecommunications)**

This category includes local employees of utility services (including workers of private and public sector entities). These services are critical for the support of the healthcare system as well as to meet basic human needs.

Note: During a pandemic, the definition of essential services may change based on epidemiologic evidence. Specifically, schools were not identified on the essential services list because of the potential closing of school facilities to limit the spread of disease during a pandemic. Pandemic influenza planning checklists for childcare centers and preschools *and* K-12 schools are included in the appendices (**Tool 49**).

## **CONTINUITY OF OPERATIONS PLANNING FOR ESSENTIAL SERVICES**

“Continuity of Operations” means ensuring that essential business and organizational functions can survive a natural disaster, technological failure, human error or other disruption. In recent times, assuring continuity of operations has also meant planning for terrorist related biological, chemical or nuclear attack. Although many businesses and organizations have continuity plans that anticipate disruptions such as fire, earthquake and floods, these events are restricted to a certain geographic area, and the time frames are fairly well defined and limited.

Pandemic influenza, however, demands a different set of continuity assumptions since it will be widely dispersed geographically and will potentially arrive in waves that could last several months at a time. Proactive and timely actions taken in the workplace can assist in minimizing the spread of the pandemic influenza.

Private businesses that provide critical and essential infrastructure services, such as power, sanitation, water, food and telecommunications, should also recognize that they have a special responsibility to plan for continued operation in a crisis, and should plan accordingly. Public and

private employers providing essential services are responsible for developing Continuity of Operation Plans (COOP) and keeping staff alerted to actions necessary to assure their health and wellbeing. COOP is simply a good business practice, part of the fundamental mission of agencies responsible for providing essential public services. Particular attention must be given to a risk assessment associated with pandemic influenza for the development of a credible COOP.

The federal government has issued specific guidance for business pandemic influenza planning, including a planning checklist included in the appendices (Tool 50). Additionally, the Trust for America's Health has issued informational brochure for businesses, "It's Not Flu As Usual, What Businesses Need to Know About Pandemic Flu Planning" (Tool 51).

## **PLANNING GUIDANCE FOR BUSINESSES AND PUBLIC AGENCIES PROVIDING ESSENTIAL SERVICES**

### **Planning Elements**

The following key elements should be addressed in an essential service COOP. However, a COOP should not be limited to these elements. The COOP should include other elements as needed and indicated for the organization.

- Staff Support Activities
- Family and Dependant Care
- Line of Succession for Essential Functions and Positions
- Delegation of Authority for Key Positions
- Security and Communications
- Logistics (for critical supplies)
- Information Systems and Technology



### ***Alert Period***

1. Assign plan development to appropriate staff who will have access to decision makers in the organization. Delineate accountability, responsibility, capabilities and resources for key stakeholders engaged in planning and executing specific components of the operational plan.
2. Review and revise existing contingency plans specifically for a pandemic.
3. Examine whether core/essential business activities can be sustained over several weeks with the anticipated high absenteeism rates for prolonged periods of time.
4. Plan for potential interruptions of essential government functions, like sanitation, water, and power, and disruptions to the food supply.
5. Identify essential functions and the staff who perform them.
  - a. If these individuals are absent, identify staffing and training/redundancy needed if essential staffing is absent with a rate of 25-35% at any given time.
  - b. Identify policy changes and/or other infrastructure, or tools, needed for alternative work schedules, worksites, and service delivery options.
    - i. Enable employees to work from home with appropriate security and network access applications.
    - ii. Expand self-service options for customers and business partners.
6. Establish Mandatory “work at home if sick with flu” policy. Establish policies for employee compensation unique to a pandemic.
7. Update sick leave and family and medical leave policies to allow for staffing away from the workplace if an employee is ill with the flu, and/or needs to care for ill family member.
8. Develop policy for curtailing business travel to and from affected areas.
9. Possible education on personal hygiene protection when traveling, if necessary.
10. Identify alternatives to travel and face-to-face meetings.
11. Determine which outside activities are critical to maintaining operations and develop alternatives in case they cannot function normally. Identify essential business inventory that needs to be built up as a resource to allow for continuation of business operations.

## **Establish Communication with Employees**

### ***Alert Period***

1. Conduct education campaign for employees:
  - a. Provide materials to employees about pandemic influenza.
  - b. Include information about business/organization preparation activities as well as steps that are being taken to protect employee health and safety should a pandemic occur.
  - c. Provide information about limiting the spread of disease at work.
  - d. Distribute “Wash Your Hands” and “Cover Your Cough” posters (Tool 39).
2. Promote a healthy worksite:
  - a. Encourage flu vaccinations among employees against regular, seasonal flu.
  - b. Encourage the practice of good health habits, including a well-balanced diet, regular exercise, and getting plenty of rest.
  - c. Ensure adequate facilities for hand washing and disposing of tissues.
  - d. Consider issuing hand hygiene products for employees to keep in their work space.
  - e. Identify employees and key customers with special needs, and incorporate the requirements of such persons in the preparedness plan.
3. Communicate changes in policy and operations during a pandemic:
  - a. Establish policies to prevent influenza spread at the work site by following public health guidance.
  - b. Establish guidelines to modify frequency and type of face-to-face contact among employees and between employees and customers.
  - c. Establish an isolation area for employees and/or customers who suddenly become ill.
4. Promote personal and family preparation plans at home:
  - a. Distribute the Santa Clara County pocket guide for individual and family preparedness, either a printed copy or web version.

- b. Promote flu vaccinations among all employees as a way of protection for regular flu season

***Pandemic Period***

1. Implement contingency plan.
2. Reinforce operational policy changes.
3. Implement healthy work environment policies.
4. Enforce and monitor mandatory “stay at home if sick” policy. Promptly exclude staff or customers with influenza symptoms from the workplace.
5. Monitor use of healthy work environment:
  - a. Implement guidelines to modify the frequency and type of face-to-face contact among employees and between employees and customers.
  - b. Evaluate employee access and availability of health care services.
  - c. Evaluate employee access to availability of mental health and social services.

**Establish Illness Reporting Mechanisms in the Work Place**

***Alert Period***

1. Monitor absenteeism and identify the reason for absenteeism.
2. Identify if illness occurred after recent international travel.
3. Monitor flu vaccination of employees during regular flu season.

***Pandemic Period***

1. Continue to monitor flu like illness and overall related absenteeism.
2. Follow the public health guidance (Module IV) in establishing social distancing measures if these become necessary.

## **Examine Occupational Health Policies and Practices**

### ***Alert Period***

1. Examine clinical practices for the protection of occupational health workers; make available recommended protective equipment.
2. Establish policies for employees who have been exposed to pandemic influenza, are suspected to be ill, or come ill to work (example: infection control measures; immediate mandatory sick leave).

## **Become Familiar with Role of Your Local Public Health Department**

### ***Alert Period***

1. Identify available mechanisms to obtain educational materials from the Public Health Officials.
2. Become the primary venue for information dissemination to employees and customers when SCCPHD issues information.
3. Identify and provide names and contact information for individuals with whom public health information is provided to disseminate throughout the organization.

### ***Pandemic Period***

1. Obtain updates at the Public Health Department website, or the Public Health Information Line (PHIL).
2. Disseminate public health recommendations in the work place.
3. Implement prevention and control measure recommended by Public Health Officials.

## **USE AND DISTRIBUTION OF ANTIVIRAL AND VACCINE MEDICATION FOR ESSENTIAL SERVICE WORKERS**

It is assumed that certain medical resources and supplies will have limited availability during a pandemic. In order to ensure an optimal pandemic response, including caring for the ill, it will be imperative to provide as much protection as possible against influenza to healthcare workers

and other essential public service workers. In this regard, groups of essential workers will receive antivirals and vaccines first in order to reduce morbidity and mortality, and secondarily to reduce societal disruption.

Essential service organizations and their personnel will be provided with preference in access to antiviral and vaccine medication, as local inventories and supplies allow. During an influenza pandemic, the Health Officer will distribute directives for the use of medications. These directives may include specific information for essential service workers. **Refer to Module V—Clinical Guidelines and Disease Management** for more specific clinical and disease management guidelines.

Employers of essential service workers will be responsible for arranging for the administration of antivirals and/or vaccines, **consistent with Health Officer directives**, through their occupational health programs, or through arrangements with the Santa Clara County Public Health Department (SCCPHD).

#### Module VIII-Preparing Essential Services for Continuity of Operations Tools

Tool 49 – Child Care Center and Preschool Pandemic Influenza Planning Checklists  
(<http://www.pandemicflu.gov/plan/preschool.html#1>)

K-12 Pandemic Influenza Planning Checklist  
(<http://www.pandemicflu.gov/plan/schoolchecklist.html>)

Tool 50 – Business Pandemic Influenza Planning Checklist, Centers for Disease Control, December 2005.

Tool 51 – It's Not Flu As Usual, What Businesses Need to Know About Pandemic Flu Planning, Trust for America's Health.

Tool 39 – Posters on “Wash Your Hands” and “Cover Your Cough”. **See Module VI – Risk Communication and Public Education.**

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# APPENDICES

1. Glossary
2. Tools

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# Pandemic Influenza

Preparedness & Response Plan

## Glossary



**Public Health Department**  
Santa Clara Valley Health & Hospital System



Glossary

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# GLOSSARY

**Airborne transmission:** Airborne transmission occurs by dissemination of either airborne droplet nuclei or small particles in the respirable size range containing the infectious agent into the air.

**Alternative Care Site (ACS):** In general, a community based facility established for the purpose of delivering health care when established health facilities are not able to accept additional patients. In terms of the Santa Clara County Pandemic Influenza Preparedness and Response Plan an ACS will operate as an Influenza Care Center (ICC) and will treat less acutely ill persons (assistive care patients).

**Antiviral Resistance:** The capacity of a virus to withstand drugs previously toxic to them; achieved by spontaneous mutation or through selective pressure after exposure to the drug in question.

**Attack rate:** A proportion measuring the cumulative incidence of a disease for a particular group over time usually expressed as a percentage cases per 100 in the group.

**Avian Influenza H5N1:** A novel influenza A subtype highly pathogenic to birds and where direct avian-to-human transmission has occurred and led to severe human disease. H5N1 is of particular concern because a pandemic may result if the subtype acquires the ability to be transmitted easily from person to person.

**BioSense:** A federal syndromic surveillance program. BioSense data, which corresponds to our metropolitan area, can be accessed by Public Health.

**Case-fatality rate:** The proportion of persons diagnosed as having a specified disease who die within a given period as a result of acquiring that disease.

**Contact transmission:** Direct contact transmission involves skin-to-skin contact and physical transfer of a disease organism from an infected person to a susceptible person. Indirect contact transmission involves contact of a susceptible host with a contaminated intermediate object in the patient's environment.

**Continuity of Operations Plans (COOP):** A business plan which serves to ensure that essential business functions can survive a natural disaster, technological failure, human error or other disruption.

**Convergent Volunteers:** Volunteers who are not pre-registered under the Disaster Service Worker Volunteer Program, and have not been impressed into service. They are volunteers who come forward spontaneously during the time of a disaster or emergency event, or post disaster to assist without pay or compensation. (See "Disaster Service Worker Volunteer Program Guidance" published by the Governor's Office of Emergency Services, April 6, 2001 issue, page 7)

**County-wide Medical Response System (CMRS):** The CMRS is a collaborative led by the Santa Clara County Public Health Department. It brings together diverse community agencies with the purpose of ensuring a coordinated response to a large scale medical disaster.

**Disaster Service:** Disaster service means all activities authorized by and carried out in accordance with the California Emergency Services Act, including approved and documented training necessary or proper to engage in such disaster activities. (California Code of Regulations, Title 19, section 2570.2(3)(b)(1))

**Disaster Service Worker:** Labor Code section 3211.92 defines the term as follows:

(a) "Disaster Service Worker" means any natural person who is registered with an accredited disaster council or a state agency for the purpose of engaging in disaster service pursuant to the California Emergency Services Act without pay or other consideration.

(b) "Disaster Service Worker" includes public employees performing disaster work that is outside the course and scope of their regular employment without pay and also includes any unregistered person impressed into service during a state of war emergency, a state of emergency, or a local emergency by a person having authority to command the aid of citizens in the execution of his or her duties.

(c) Persons registered with a disaster council at the time that council becomes accredited need not reregister in order to be entitled to the workers' compensation benefits provided by Chapter 10 (commencing with Cal. Labor Code Section 4351).

(d) "Disaster Service Worker" does not include any member registered as an active firefighting member of any regularly organized volunteer fire department, having official recognition, and full or partial support of the county, city, or district in which the fire department is located.

**Note:** The term "Disaster Service Worker" includes all public employees and all volunteers in any disaster council or emergency organization accredited by the California Emergency Council. The term public employee includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed (Government Code section 3101).

**Disease Surveillance:** In communicable disease control, a systematic process of collection, collation, analysis, and dissemination of health and disease data.

**Droplet Transmission:** Droplet transmission occurs when a person who has clinical disease or who is a carrier of the microorganism, generates droplets containing the infectious agent when they cough, sneeze or talk.

**ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):** An automated syndromic surveillance system that extracts and analyzes disease data from emergency departments and other sources. When fully operational in Santa Clara County it will replace the Tally Sheet as a surveillance tool.

**ICD-9 codes:** A numeric code assigned for each disease, by WHO, International Classification of Diseases, 9<sup>th</sup> Revision Clinical Modification (ICD-9 CM), for the purpose of avoiding confusion based on varying nomenclatures in different languages.

**Influenza Care Center (ICC):** A community based location not purpose-built as a setting for the delivery of health care, where persons with influenza will receive basic services – food, shelter and health care.

**Influenza Epidemic or Seasonal Influenza Outbreak:** Caused by one or more subtypes of influenza virus that circulates typically every year in the winter in temperate climates, to which the population already has partial immunity.

**Influenza like illness (ILI):** Generally defined as temperature greater than 100.4 and at least one upper respiratory symptom (cough, rhinorrhea, or pharyngitis). This case definition is non-specific and captures illnesses due to a variety of respiratory viruses that commonly circulate in the winter.

**Influenza Pandemic:** Global outbreak of disease that occurs when an entirely new subtype of influenza A appears or emerges, to which the population has no immunity because the subtype has either never circulated among people or has not circulated for a long time. Pandemic virus causes serious illness and then spreads easily from person to person worldwide.

**Isolation:** The 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.

**Local emergency:** This term, as defined in California Government Code section 8558(c), means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the territorial limits of a county, city and county, or city, caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, complications resulting from the Year 2000 Problem, or other conditions, other than conditions resulting

from a labor controversy, which are or are likely to be beyond the control of the services, personnel, equipment, and facilities of that political subdivision and require the combined forces of other political subdivisions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.

**Morbidity:** The ratio of sick to well persons in a community during a stated period of time.

**Mortality:** The ratio of deaths to persons at risk of dying during a stated period of time.

**Nosocomial pandemic influenza:** A pandemic flu case occurring in a patient in a hospital or other health care facility in whom the infection was not present or incubating at the time of admission.

**Novel Influenza Virus:** New strains of influenza virus for which there is little or no immunity in the human population.

**Pandemic Periods:** The World Health Organization (WHO) has developed a global influenza preparedness plan that includes a classification system for guiding planning and response activities. This classification system is comprised of three periods and six phases of increasing public health risk associated with the emergence and spread of a new influenza virus subtype. The Santa Clara County Public Health Pandemic Flu Plan describes activities and concerns based on the Pandemic Period. The Pandemic Flu Plan is focusing on the Alert and Pandemic Periods. The three periods are as follows:

(a) Interpandemic Period: A novel influenza A has been detected in animals (birds) but not in humans. The risk of this circulating animal virus causing disease in humans is perceived to be increasing as the phases during this period progress.

(b) Alert period: In the early phases of this period there are human infection(s) with the new subtype but no human-to-human spread or at most rare instances of spread to a close contact. As the phases progress small to large localized clusters of human-to-human spread are occurring suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible.

(c) Pandemic Period: Pandemic is declared. Increased and sustained transmission in the general population.

**Post Traumatic Stress Disorder (PTSD):** An anxiety disorder characterized by avoiding stimuli associated with a traumatic event, re-experiencing the trauma, and hyper-arousal, such as increased vigilance. This disorder may develop after exposure to traumatic events that involve a life-threatening component, and a person's vulnerability to the development of PTSD can be increased if the trauma is perceived to be a personal assault.

**Psychological Inoculation:** A strategy to prepare and address psychological stress reactions that emphasize basic human resiliency and the ability of human beings to endure and overcome extreme and prolonged adversity.

**Quarantine:** 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 manner as to prevent effective contact with those not so exposed.

**Snow Days:** "Snow Days" refers to a measure in which everyone is asked to stay home. Snow days may be instituted for an initial 10-day period, with final decisions on duration based on an epidemiologic and social assessment of the situation (p. S8-12, HHS Pandemic Influenza Plan).

**Social Distancing:** Social distancing refers to focused measures and/or community wide measures to increase social distance between individuals who are well and unexposed from individuals who have been exposed or infected by a communicable disease. Also known as community containment.

**Source Control Measures:** Limiting the dissemination of an infectious agent from the person, animal, object or substance that is the source of infection to a host.

**Standard Emergency Response System (SEMS):** SEMS is a management system designed to manage and coordinate state and local emergency response in California. It provides the umbrella under which all response agencies may function in an integrated fashion.

**State of Emergency:** This term, as defined in California Government Code section 8558(b), means the duly proclaimed existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by such conditions as air pollution, fire, flood, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake, complications resulting from the Year 2000 Problem, or other conditions, other than conditions resulting from a labor controversy or conditions causing a "state of war emergency," which, by reason of their magnitude, are or are likely to be beyond the control of the services, personnel, equipment, and facilities of any single county, city and county, or city and require the combined forces of a mutual aid region or regions to combat, or with respect to regulated energy utilities, a sudden and severe energy shortage requires extraordinary measures beyond the authority vested in the California Public Utilities Commission.

**State of War Emergency:** This term, as defined in California Government Code section 8558(a), means the condition which exists immediately, with or without a proclamation thereof by the Governor, whenever this state or nation is attacked by an enemy of the United States, or upon receipt by the state of a warning from the federal government indicating that such an enemy attack is probable or imminent.

**Tally Sheet:** A syndromic surveillance tool that manually captures chief complaint data collected from patients presenting to 11 emergency departments in the County of Santa Clara.

**Transmissibility:** The ability of an organism to be transferred from person to person.

**Virological Surveillance:** A surveillance mechanism in which microbiological laboratories perform tests to identify and characterize viruses and viral strains

**Virulence:** The ability of an organism to produce disease; measured by the number of persons developing clinical illness to the number of persons exposed to infection.

**Warm Line:** A non-emergency advice and counseling telephone service.

# Pandemic Influenza

Preparedness & Response Plan

## Tools



**Public Health Department**  
Santa Clara Valley Health & Hospital System



Tools

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# TOOLS

1. Matrix of Laws Relevant to Isolation and Quarantine in Santa Clara County
1. Model Health Officer Orders
2. Fact Sheet on Isolation and Quarantine Legal Authority
3. Health Alert Template for Law Enforcement for Isolation and Quarantine
4. State of California Written Information on Workers Compensation
5. Workers' Compensation Claim Procedures and Forms SCIF 3301 and SCIF 3267
6. Written Information on Liability and Immunity for Disaster Service Workers
7. Protocol for Rapid Verification of Medical Volunteer Credentials
8. Disaster Service Worker Loyalty Oath
9. Santa Clara County Physician Alert Case Definition Avian Influenza
10. California Avian Influenza Case Report Form
11. Santa Clara County Public Health Laboratory Informational No.: 2005-4: Instructions for when to suspect infection with a novel influenza strain (such as H5N1)
12. Santa Clara County Pandemic Influenza Case Report Form
13. Sample outpatient and hospital batch reporting form
14. Just-in-Time Orientation for Influenza Care Centers
15. Schematic of Physical Set-up at Influenza Care Center
16. Schematic of Nurse Station at Influenza Care Center
17. Duty Statements for Influenza Care Center Staff
18. Checklist of Supplies for Influenza Care Centers
19. Disease Control Measures: definitions, examples and considerations
20. Home Isolation Checklist
21. Fact Sheet on Social Distancing to Control the Spread of Pandemic Influenza **(to be developed)**
22. Plan A for the use of anti-virals – no vaccine; Plan B for the use of anti-virals – vaccine available
23. Tool for vaccine monitoring and data collection **(to be developed)**
24. Plan for Vaccination with Strain-specific Influenza Vaccine during an Influenza Pandemic
25. Algorithm for telephone triage **(to be developed)**
26. Santa Clara County Physician Alert on Tamiflu dated November 4, 2005
27. Pocket Website Reference Tool **(to be developed)**
28. Figure 1: Clinical Algorithm for Case Management – Alert period
29. Figure 2: Clinical Algorithm for Case Management – Pandemic Period
30. Santa Clara County Public Health Laboratory Guidelines for Collecting and Shipping Specimens for Influenza A (H5N1) Diagnostics
31. Clinical Triage Guidelines during Pandemic Critical Resources Stage
32. Fluids Suitable for Maintenance of Hydration and Management of Mild Dehydration for Influenza Patients in the Home Setting
33. Guidelines for the management of community-acquired pneumonia (CAP) during an influenza pandemic
34. Empiric antibiotic regimens for community-acquired pneumonia during an influenza pandemic
35. Influenza Anti-viral Medications – Indications and Dosage Table
36. Patient Home Care Handout **(to be developed)**
37. Your Guide to Preparing for Pandemic Flu
38. Posters “Wash Your Hands” and “Cover Your Cough”
39. Pandemic Flu Fact Sheet
40. Health Officer Q&A
41. Household Flu Preparedness Checklist
42. Psychosocial Support Informational handouts for various populations (general community, health care workers/families, mental health workers, consumers and their families) **(to be developed)**
43. Psychological Preparedness Tool Kits for various populations (general community, health care workers/families, mental health workers, consumers and their families) **(to be developed)**
44. Psychosocial Support Web-based FAQ's and Resource Information **(to be developed)**

45. Psychosocial Support Training Curricula for various target population trainings **(to be developed)**
46. Psychosocial Support Train the Trainer curricula and handouts **(to be developed)**
47. Psychosocial Support Warm Line Implementation Kits to instruct on the implementation of various resources and advise lines for different populations **(to be developed)**
48. Child Care and Preschool Pandemic Influenza Planning Checklist; K-12 Schools Pandemic Influenza Planning Checklist, Centers for Disease Control
49. Business Pandemic Influenza Planning Checklist, Centers for Disease Control, December 2005
50. It's Not Flu As Usual, What Businesses Need to Know About Pandemic Flu Planning Brochure, Trust

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**Tool 1 – Summary of Laws Relevant to Isolation and Quarantine in Santa Clara County**

Key Word/Subject	STATUTE / CASE LAW	CITATION	DESCRIPTION / SUMMARY	PLAN SECTION
Area Closures	CA Penal Code	§ 409.5	The health officer may “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.”	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Area Closures	CA Penal Code	§ 409.6	The health officer has the authority to close the area where the menace exists where the menace was created by an avalanche.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Area Closures	Penal Code	§ 409.5	Allows closing of an area “whenever a menace to the public health or safety is created by a calamity” (e.g. a flood, storm, fire, earthquake, explosion, accident or other disaster). Describes power that is granted to certain law enforcement officers and the health officer.	Law Enforcement Powers
Area Closures	CA Penal Code	§§ 409.5, 409.6	Certain law enforcement officers including, the Sheriff and Chief of Police may close areas to the public “whenever a menace to the public health or safety is created by a calamity” (e.g. flood, storm, earthquake, accident or other disaster) and consequently may order an evacuation.	Restrict Movement of People or Property Restricting access
Area Closures	CA Penal Code	§ 409.6	Allows specified law enforcement officers and the health officer to close or restrict access to an avalanche area, and provides for forcible removal from the area.	Restrict Movement of People or Property Restricting access
Area Closures	CA Streets and Highways Code	§ 124	State Department of Transportation may restrict traffic or close state highway for the protection of the public or for the protection of the highway from damage during storms or during construction, improvement or maintenance operations.	Restrict Movement of People or Property Road/highway closure
Area Closures	CA Vehicle Code	§2812	CA Highway Patrol, police departments, and sheriff’s office may close public highways if there is a threat to public health or safety caused by dangerous substances (e.g. poisonous gas, explosives, dust, smoke or other similar substances or fire).	Restrict Movement of People or Property Road/highway closure
Assembly Closures	Santa Clara County Ordinance Code	§ A18-14	The health officer 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.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency

**Tool 1 – Summary of Laws Relevant to Isolation and Quarantine in Santa Clara County, Continued**

Constitutional Rights	US and California Constitutions		The health officer may not issue isolation/quarantine orders that violate a patient's constitutional rights.	Local Authority Limitations on Health Officer's Isolation/Quarantine Powers
Control Movement	Title 42 U.S.C.	§§ 264	Authority to Secretary of HHS to control movement of persons into and within US to prevent spread of communicable disease. Communicable diseases for which apprehension, detention or conditional release of persons are authorized must be set forth in Executive Orders of the President.	Federal Authority
Curfew	CA Government Code	Emergency Services Act §8634	During a local emergency, the Board of Supervisors may issue orders and regulations "necessary to provide for the protection of life and property," including imposition of a curfew.	Restrict Movement of People or Property Curfew
Curfew	CA Health and Safety Code	§ 120140	CA DHS may enforce curfew to prevent the unnecessary spread of a disease to surrounding regions.	Restrict Movement of People or Property Curfew
Definitions	17 California Code of Regulations	§ 2215,2520	Defines isolation and quarantine.	State Authority
Destruction of Personal Property	CA Health and Safety Code	§ 120210 (b)	The health officer has the duty to destroy personal property when ordered by the state to do so in certain situations.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Detainment	Title 42 U.S.C.	§ 266	Grants less restricted authority to the Secretary of HHS during times of war to apprehend, examine and detain individuals believed to be infected with communicable disease.	Federal Authority
Detainment	Title 42 U.S.C.	§ 249	Any person detained in accordance with quarantine laws may be treated and cared for by the US Public Health Service...at the expense of the Service.	Federal Authority
Disease investigation	Title 17 California Code of Regulations	§ 2501 (a)	The health office has the duty to investigate diseases, conditions or outbreaks.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Enforcement	CA Health and Safety Code	§ 101030	The health officer has the duty to enforce local ordinances concerning public health and sanitary matters as well as state statutes, orders and regulations related to public health including quarantine laws.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency

**Tool 1 - Summary of Laws Relevant to Isolation and Quarantine in Santa Clara County, Continued**

Enforcement	Santa Clara County Ordinance Code	§ A18-13	The health officer may “arrest a person without warrant whenever he has reasonable cause to believe that the person has committed a misdemeanor in his presence which is a violation of any statute or ordinance which the public health office is empowered to enforce...”	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Enforcement	CA Constitution	Art 11, § 7	Any county may make and enforce within its limits all local, police, sanitary and other ordinances and regulations not in conflict with the general laws.	Restrict Movement of People or Property
Federal assistance/support	Title 42 C.F.R.	§ 70.2	Authority to CDC Director to take reasonably necessary measures to prevent the spread of disease between states if local efforts are “insufficient”.	Federal Authority
Federal assistance/support	The Stafford Act, 42 U.S.C. § 5121 et seq	§5192	In any emergency, the US President may direct any Federal agency to utilize its authorities and resources (e.g. personnel, equipment, supplies etc) in support of State and local emergency assistance efforts to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe..	Federal Authority
Government immunity	Federal Torts Claims Act, Title 28 U.S.C.	§ 2680(f)	Federal government retains sovereign immunity from any claim for damages caused by quarantine imposed by the United States.	Federal Authority
Hazardous/Medical Waste	CA Health and Safety Code	§ 101080, § 101085	The health officer has the authority to declare a “county health emergency/local health emergency” whenever a release, spill, escape or entry of hazardous waste or medical waste occurs. ...health officer may require the production of certain information regarding the hazardous waste/medical waste, provide that information those specified under the statute and sample, analyze or otherwise determine the type of hazardous material involved as necessary to protect the public.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Inspections	Santa Clara County Ordinance Code	§ A18-12	The health officer may “enter into and upon, and to inspect any and all lands, places, buildings, and structures, and the contents thereof, within the corporate limits of the county...”	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Isolation and Quarantine Authority	CA Health and Safety Code	§ 120145	The CA Department of Health Services may quarantine, isolate, inspect, and disinfect persons, animals, houses, rooms, other property, places, cities or localities, whenever in its judgment the action is necessary to protect or preserve the public health	State Authority

**Tool 1 – Summary of Laws Relevant to Isolation and Quarantine in Santa Clara County, Continued**

Isolation and Quarantine Authority	CA Health and Safety Code	§ 120210	The CA Department of Health Services promulgates rules, regulations and orders regarding quarantine, isolation and disinfection of persons and property and may require the local health officer to enforce its directives.	State Authority
Isolation and Quarantine Authority	Gibbon v. Ogden Jacobson v. Massachusetts,	22 U.S. 1 (1824); 197 U.S. 11 (1905)	The primary authority for isolation and quarantine resides at the state level as an exercise of state's police power.	State Authority
Local Emergency Prevention Measures	CA Health and Safety Code	§ 101040	If a local emergency is declared under Govt. Code § 8630 and 8558(c), the health officer may take "any preventive measures that may be necessary to protect and preserve the public health from any public health hazard..."	Local Authority Powers/Duties of Health Officer During Declared Emergency
Medical Examination	Title 17 California Code of Regulations	§ 2501 (a)	The health officer has the duty and authority to examine or order examination of person/animal that was the subject of a disease report in order to "verify the diagnosis or the existence of an unusual disease, or outbreak."	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Prevention of disease spread	CA Health and Safety Code	§ 120175	The health officer has the authority to "take measures as may be necessary" to prevent the spread of disease when the officer has reason to believe that any case of a reportable disease or any other contagious, infectious or communicable disease exists within his jurisdiction.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Quarantine Animals	CA Food and Agriculture Code	§§ 5763, 5301	The director of the CA State Dept. of Food and Agriculture may impose quarantine measures to protect the state's agricultural industry from pests.	State Authority
School Exclusion	CA Health and Safety Code	§ 120230	The health officer has the authority to exclude from schools instructors, teachers, pupils or children who are under strict isolation/quarantine orders..	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
State Consent Requirement	CA Health and Safety Code	§ 120205	The health officer may not establish quarantine against another county or city without the state's written consent.	Local Authority Limitations on Health Officer's Isolation/Quarantine Powers
State Possession of Bodies	CA Health & Safety Code	§ 120140	If notified by the health officer of any contagious, infectious, or communicable disease, DHS may take measures as are necessary to ascertain the nature of the disease and prevent its spread. To that end, DHS, if it considers it proper, may take possession or control of the body of any living person, or the corpse of any deceased person.	Law Enforcement Powers

**Tool 1 – Summary of Laws Relevant to Isolation and Quarantine in Santa Clara County, Continued**

State/Local Coordination	CA Health and Safety Code	§ 100180	CA Department of Health Services role is to advise local health authorities. If the state determines that local public health is “menaced” it shall take control and regulate the actions of the local health officers.	State Authority
State/Local Coordination	CA Health and Safety Code Title 17 California Code of Regulations	§ 120190 §2501 (b); §2502	The health officer has a duty to report certain diseases to the state.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
State/Local Coordination	CA Health and Safety Code	§ 120195; § 120210 (a); and § 120215 (b)	The health officer has the duty to enforce all order, rules and regulations regarding quarantine or isolation prescribed or directed by DHS.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
State/Local Coordination	CA Health and Safety Code	§ 120200	The health officer has a duty to maintain places of quarantine/isolation when required by CA Department of Health Services.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
State/Local Coordination	CA Health and Safety Code	§ 120185	The health officer has the duty to report local epidemics of disease to the state.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
State/Local Coordination	CA Health and Safety Code	§ 120200	Each health officer, whenever required by the state, shall establish and maintain places of quarantine or isolation that shall be subject to the special directions of the state.	Local Authority Limitations on Health Officer’s Isolation/Quarantine Powers.
Strict or Modified Isolation or Quarantine	CA Health and Safety Code	§ 120130 (c) § 120215	The health officer has the authority to require strict or modified isolation or quarantine for any case of contagious, infectious or communicable disease.	Local Authority Powers/Duties of Health Officer Prior to Emergency Declaration and During Declared Emergency
Violations	CA Health and Safety Code	§ 1020275	Persons who violate rules, orders or regulations prescribed by the state respecting quarantine or disinfection of persons, animals, things or places is guilty of a misdemeanor.	Obligation of Citizens

**Tool 1 - Summary of Laws Relevant to Isolation and Quarantine in Santa Clara County, Continued**

Violations	CA Food & Agriculture Code	§ 9698	It is unlawful to violate any quarantine order which "regulates, restricts, or restrains the movement of persons, vehicles, farm and dairy products, into from, or from place to place within a quarantined district, area, or premises."	Obligation of Citizens
Violations	CA Government Code	§ 202	"The state may imprison or confine for the protection of the public peace or health or of individual life or safety."	Law Enforcement Powers
Violations	CA Penal Code	§409	Every person remaining present at the place of any riot, rout or unlawful assembly, after being warned to disperse, is guilty of a misdemeanor.	Restrict Movement of People or Property
Violations	CA Penal Code	§ 402	It is a misdemeanor for a person at the scene of an emergency to impede police, firefighters, emergency medical or other emergency personnel or military personnel in the performance of their duties in coping with the emergency.	Restrict Movement of People or Property Enforcement during restricted access
Violations	CA Penal Code	§ 409.5(c)	If an area has been closed as allowed under Penal Code section 409.5, any unauthorized person who willfully and knowingly enters the area and remains in the area after receiving notice to leave is guilty of a misdemeanor.	Restrict Movement of People or Property Enforcement during restricted access

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**NOTICE AND ORDER TO APPEAR FOR MEDICAL EXAMINATION**

TO: [Patient’s name] DOB: Registry No:

FROM: Martin Fenstersheib, MD, Santa Clara County Health Officer

DATE OF ISSUANCE:

**REASON FOR ISSUANCE:**

You are suspected of having a contagious form of [insert disease]. According to our information, [describe relevant events, patient’s symptoms, circumstances leading to exposure etc.]

**DIRECTIVE:**

As the Health Officer, I hereby order to you to appear for medical examination on [insert date/time of medical examination] at the following location: [clinic name/address]. You are further ordered to appear for any subsequent medical appointments and to cooperate with any physician, health officer or persons authorized by my office to perform medical observation while the Health Department conducts an investigation to determine the source of infection.

**LEGAL AUTHORITY:**

This order is authorized under California Health and Safety Code sections 120175, 120130 and Title 17 of the California Code of Regulations sections 2501(a) and 2540. This order is issued as an effort to protect the public’s health. There is no alternative to medical examination and monitoring that would help us determine whether you have [insert disease name].

**PATIENT’S RIGHTS:**

Either you or your authorized lawful representative may contact [insert Department contact person/phone number] from the Public Health Department to seek clarification of any part of this order. If you believe that you do not have a case or suspected case of [insert name of disease], or you object to medical examination, you or your lawful authorized representative may object to this order by contacting the Public Health Department representative identified above. Failure to comply with this order could result in the issuance of an order for Isolation or Quarantine or the Health Officer may file a petition in Superior Court for a court order authorizing medical examination and monitoring.

(Page 2 of 2)

**IT IS SO ORDERED**

\_\_\_\_\_  
Martin Fenstersheib, MD, Santa Clara County Health Officer

**PATIENT’S CONSENT TO ORDER**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Your signature above confirms that: (1) you have read and understand the information in and directive of this order; (2) you have had a chance to ask the Public Health Department questions about this order; (3) you have received all the information you desire concerning the proposed medical examination and (4) you authorize and consent to this order. That is, you agree to undergo medical examination and monitoring for the purpose of preventing the spread of disease.

**QUARANTINE ORDER**  
(In Home)

TO: [Patient’s Name] DOB: Registry No:

FROM: Martin Fenstersheib, MD, Santa Clara County Health Officer

DATE OF ISSUANCE:

**REASON FOR ISSUANCE:**

The County Health Department has reason to suspect that you have come into contact with a person who has a contagious disease, hence that you may have or develop this disease. Specifically, you are suspected of having come into contact with a person who has [identify the disease]. If you were to have this disease you would pose a substantial threat to the public’s health. According to our information, you had potential exposure to this disease because [insert factual circumstances of exposure].

**DIRECTIVE:**

As the Health Officer, I hereby order you placed in quarantine in your home twenty-four hours a day, seven days a week, until you are deemed non-contagious by the Public Health Department or until [insert anticipated expiration date of quarantine], whichever occurs first. You are to remain in your home located at [insert street address] and follow the conditions of quarantine listed below and any additional instructions attached to this Order.

Conditions of Quarantine

- a. You must not go beyond the lot line of the location described above, or put yourself in immediate physical proximity with any person, other than a physician, the health officer, or persons authorized by the health officer, or household members.
- b. You must cooperate with any physician, health officer or persons authorized by the health officer who performs medical observation during the period of quarantine.

**LEGAL AUTHORITY:**

This order is authorized under California Health and Safety Code §§120130 and 120175 and is being issued to protect the public’s health. There is no less restrictive alternative other than confinement which would protect the public’s health. You are required under Health and Safety Code §120220 to obey this order. Violation or failure to comply with this order may result in civil detention, and is a misdemeanor punishable by imprisonment, fine, or both (Health and Safety Code §120275).

**PATIENT’S RIGHTS:**

Either you or your authorized lawful representative may contact [insert contact person at the Public Health Department] from the County Health Department to seek clarification of any part of this order. If you believe that you have not been exposed to a case or suspected case of a contagious disease or you object to the appropriateness of the conditions of quarantine contained in this order, you or your lawful authorized representative may object and/or request an informal hearing by contacting the Public Health Department representative listed above. You may seek judicial relief from this order under California Penal Code §1473 by filing an application with the Court. You have a right to seek counsel to represent you in this matter.

**IT IS SO ORDERED.**

---

\_\_\_\_\_  
Martin Fenstersheib, MD  
Santa Clara County Health Officer

**PATIENT'S CONSENT TO ORDER**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Your signature above confirms that: (1) you have read and understand the information in and directive of this order; (2) you have had a chance to ask the Public Health Department questions about this order; (3) you have received all the information you desire concerning the conditions of quarantine; (4) you authorize and consent to this order (that is, you agree to remain in your home under quarantine as specified above for the purpose of preventing the spread of disease); and (5) you do not wish to have an informal hearing nor wish to file a petition with the court objecting to this order and therefore are voluntarily waiving your right to an informal hearing and judicial review of this matter.

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Your signature above confirms that: (1) you have read and understand the information in and directive of this order; (2) you have had a chance to ask the Public Health Department questions about this order; (3) you have received all the information you desire concerning the conditions of isolation; (4) you authorize and consent to this order (that is, you agree to remain in your home under isolation as specified above for the purpose of preventing the spread of disease); and (5) you do not wish to have an informal hearing or file a petition with the court objecting to this order and therefore are voluntarily waiving you right to an informal hearing and judicial review of this matter.

**CONDITIONS OF HOME ISOLATION/ADDITIONAL INSTRUCTIONS**

All of the following checked conditions apply to your isolation and must be followed at all times:

\_\_\_\_\_ You must sleep alone in a separate bed in a room protected against flies.

\_\_\_\_\_ All persons except those caring for you, must be excluded from your room.

\_\_\_\_\_ The persons caring for you must avoid coming in contact with any other persons within the household or elsewhere until every precaution has been taken to prevent the spread of infectious material from your room.

\_\_\_\_\_ The persons caring for you must wear a washable outer garment and must thoroughly wash their hands with soap and hot water after touching you or any object you may have contaminated (e.g. via touching, coughing, sneezing, etc.). On leaving the room in which you are isolated, your attendant must take off the washable outer garment and hang it in the room until disinfected.

\_\_\_\_\_ All discharges from your nose and mouth must be burned or disinfected. The discharges should be received in pieces of soft tissue or cloth and dropped into a paper bag which can be burned.

\_\_\_\_\_ Objects which may have been contaminated must be thoroughly cleansed before being removed from the contaminated area.

\_\_\_\_\_ Feces and urine of patients suffering from diseases in which the infectious agent appears in the feces or urine must be disposed of according to the following instructions: [insert specific instructions]

\_\_\_\_\_ Other:

**ORDER OF THE SANTA CLARA COUNTY**  
**HEALTH OFFICER**  
**CONCERNING TEMPORARY ISOLATION AND DECONTAMINATION OF**  
**INDIVIDUALS EXPOSED TO BIOLOGICAL AGENTS**

**BACKGROUND**

California Health and Safety Code Section 120175 requires the Health Officer of the County of Santa Clara to take measures as may be necessary to prevent the spread of any contagious, infectious or communicable disease if the Health Officer has reason to believe that such a disease exists within the County. In addition, California Health and Safety Code Section 120215 requires the Health Officer, upon receiving information of the existence of certain contagious, infectious, or communicable diseases, to ensure the adequate isolation of each case, and appropriate quarantine of the contacts and premises. Currently, an increased threat of the release of a biological agent exists in the United States, and such a release would require immediate containment. As a result, it may be necessary for persons who have been exposed to a biological agent to remain isolated temporarily until the Health Officer is notified and able to evaluate the need for continued isolation or other action as may be required.

**ORDER**

THE HEALTH OFFICER OF THE COUNTY OF SANTA CLARA ORDERS AS FOLLOWS:

1. For the purpose of this order:
  - a. “Biological Agent” means any of the restricted biological agents listed in California Penal Code section 11419, including, but not limited to, anthrax, smallpox virus, pneumonic plague, botulism, and hemorrhagic fever viruses.
  - b. “Exposed Individual” means any person who has been exposed to a material that poses a credible threat of being a Biological Agent, or has been inside an enclosed airspace after a material that poses a credible threat of being a Biological Agent has been released into the enclosed airspace. Factors to be considered in determining whether a material poses a credible threat of being a Biological Agent include: (1) the existence of a communicated threat, (2) the likelihood that the location is a target (e.g., government offices, critical infrastructure, airports, etc.), (3) the manner of delivery (e.g., suspicious package or letter), and (4) the presence of material (e.g., liquid or powder) that cannot be explained as usual or common for the location.
  - c. “Incident Scene Commander” means the controlling individual from the responding fire protection agency at the scene of the release of a suspected Biological Agent.
2. Any Exposed Individual who is directed by emergency response personnel to undergo field decontamination, and subsequently refuses to do so, shall remain isolated temporarily in an area designated by the Incident Scene Commander until the Health Officer determines whether continued isolation or other action is necessary to protect the public health. The Incident Scene Commander shall immediately notify the Health Officer, through County Communications, upon the temporary isolation of any Exposed Individual.
3. If an Exposed Individual is temporarily isolated, the Incident Scene Commander shall provide the Exposed Individual with a copy of this order as soon as practicable.
4. No person shall remain isolated under this Order for more than ninety (90) minutes.
5. If the Health Officer determines that the decontamination or continued isolation of an Exposed Individual is necessary to protect the public health, the Exposed Individual shall remain isolated, undergo decontamination, or both, as directed by the Health Officer.
6. A violation of this order is a misdemeanor, punishable by a fine of up to one thousand dollars (\$1,000), or by imprisonment for a term of up to 90 days, or by both.

7. This Order is in effect for one year.

**ORDERED** by the Health Officer of the County of Santa Clara on \_\_\_\_\_

Date

\_\_\_\_\_  
Martin Fenstersheib, M.D., Health Officer

**AUTHORITY:** California Health & Safety Code sections 120175, 120215, 120220 & 120295.

**APPROVED AS TO FORM AND LEGALITY:**

\_\_\_\_\_  
Deputy County Counsel

Rev0092503

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## FACT SHEET

### Legal Authorities for Isolation and Quarantine

(Reproduced in part from CDC FACT SHEET on Legal Authorities for Isolation and Quarantine, September 2004)

#### Introduction

Isolation and quarantine are two common public health strategies designed to protect the public by preventing exposure to infected or potentially infected persons.

Both isolation and quarantine may be conducted on a **voluntary basis** or **compelled on a mandatory basis** through legal authority.

#### Definitions

According to California Code of Regulations<sup>63</sup>, isolation and quarantine are defined as follows:

**Isolation:** “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.”

**Quarantine:** “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 manner as to prevent effective contact with those not so exposed.”

#### State and Local Law

A state’s authority to compel isolation and quarantine within its borders is derived from its inherent “police power” – the authority of a state government to enact laws and promote regulations to safeguard the health, safety, and welfare of its citizens. California law expressly authorizes compelled isolation and quarantine.

Under California Health and Safety Code, the local Health Officer (HO) is granted authority for ordering and ensuring measures related to isolation and quarantine both before and following a declaration of emergency.

The county Health Officer’s authority includes:

- Orders and ordinances of the board of supervisors pertaining to public health and sanitary matters;
- Orders including quarantine and other regulations prescribed by the department; and
- Statutes related to public health.”<sup>64</sup>

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<sup>63</sup> 17 CCR 2515, 2520

<sup>64</sup> CA HSC § 101300



### Health Officer and Declaration of Emergencies

The Health Officer (HO) may proclaim a local emergency if he or she has been specifically designated to do so by ordinance approved by the county governing body; however, currently in Santa Clara County the health officer is not provided such designation.<sup>65</sup> The health officer is, however, authorized to declare a local health emergency under one condition: “Whenever a release, spill, escape, or entry of waste occurs...and the director or the local health officer reasonably determines that the waste is a hazardous waste or medical waste, or that it may become a hazardous waste or medical waste...”<sup>66</sup> Such declarations of a local health emergency may remain in effect for no more than seven days unless ratified by the Board of Supervisors.

### Health Officer Orders for Isolation and Quarantine

The HO has legal authority to issue individual or mass isolation and quarantine orders to protect the public health.<sup>67</sup> The HO may issue isolation/quarantine orders any time HO has reasonable grounds to believe the order is necessary to prevent the spread of disease.<sup>68</sup> The Isolation/Quarantine order may be “strict” or “modified”<sup>69</sup>

- (a) Strict Isolation<sup>70</sup>: If the disease is one requiring strict isolation, the health officer shall insure that instructions are given to the patient and members of the household, defining the area within which the patient is to be isolated and stating the measures to be taken to prevent the spread of disease.
- (b) Modified Isolation: If the disease is one in which only a modified isolation is required, the local health officer shall issue appropriate instructions, prescribing the isolation technique to be followed. The isolation technique will depend upon the disease.

### Obligations of Citizens

Once the health officer issues an order, patients have the duty to obey the orders.<sup>71</sup> It is a misdemeanor to disobey the health officer order.<sup>72</sup>

### Federal Law

The HHS Secretary has statutory responsibility for preventing the introduction, transmission, and spread of communicable diseases from foreign countries into the United States, e.g., at international ports of arrival, and from one state or possession into another.<sup>73</sup>

The communicable diseases for which federal isolation and quarantine are authorized are set forth through executive order of the President and include **cholera, diphtheria, infectious tuberculosis,**

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<sup>65</sup> Government Code § 8630

<sup>66</sup> CA HSC § 101080

<sup>67</sup> CA HSC § 120130, 120175

<sup>68</sup> In Re Application of Arata (1921) 52 Cal. App. 380

<sup>69</sup> CA HSC § 120130

<sup>70</sup> Title 17 CCR § 2516; 2518

<sup>71</sup> CA HSC § 120225, 1202130

<sup>72</sup> CA HSC § 120275

<sup>73</sup> 42 U.S. C. §264(a)

**plague, smallpox, yellow fever, and viral hemorrhagic fevers. Severe acute respiratory syndrome (SARS) was added** to this list in April 2003.<sup>74</sup>

By statute, U.S. Customs and Coast Guard officers are required to aid in the enforcement of quarantine rules and regulations.<sup>75</sup> Violation of federal quarantine rules and regulations constitutes a misdemeanor, punishable by fine and/or imprisonment.

Federal quarantine authority includes the authority to release persons from quarantine on the condition that they comply with medical monitoring and surveillance.<sup>76</sup>

### **Interplay between Federal and State/Local Laws**

States and local jurisdictions have primary responsibility for isolation and quarantine within their borders. The federal government has authority under the Commerce Clause of the U.S. to prevent the interstate spread of disease.

The federal government has primary responsibility for preventing the introduction of communicable diseases from foreign countries into the United States.

By statute, the HHS Secretary may accept state and local assistance in the enforcement of federal quarantine regulations and may assist state and local officials in the control of communicable diseases.

It is possible for federal, state, and local health authorities simultaneously to have separate but concurrent legal quarantine power in a particular situation (e.g., an arriving aircraft at a large city airport).

Because isolation and quarantine are “police power” functions, public health officials at the federal, state, and local levels may occasionally seek the assistance of their respective law enforcement counterparts to enforce a public health order.

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<sup>74</sup> Executive Order Dated April 4, 2003

<sup>75</sup> 42 U.S.C. § 5170b

<sup>76</sup> 42 U.S.C. § 264

County of Santa Clara  
Public Health Department  
3003 Moorpark Avenue  
San Jose, California 95128

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ISOLATION/QUARANTINE ALERT TO LAW ENFORCEMENT

DATE:

TO: Office of Sheriff  
Local Police Departments

FROM: Martin Fenstersheib, MD, MPH  
Health Officer

RE: Isolation and Quarantine for [ ] Disease

This fax contains XX pages.  
Please copy and distribute to  
ALL COUNTY AND LOCAL  
LAW ENFORCEMENT

A Health Officer Order has been issued for Isolation [and Quarantine] in Santa Clara County in response to the detection of pandemic influenza.

**Background**

As the Santa Clara County Health Officer, I have the authority under the California Health and Safety Code to order isolation and/or quarantine to prevent the transmission of communicable diseases (Health and Safety Code §§ 120130, 120215, 120175).

**What To Do**

Review the attached Health Officer order(s)

Review the following status of Isolation/Quarantine

→ Hospital Isolation/Quarantine

XXX number of patients are under isolation in the following hospitals: [ ].

If law enforcement is required for enforcing health officer orders, the [ ] jurisdiction will be contacted by the Public Health Department or the hospital.

→ Home Isolation/Quarantine

XXX (number of patients) are ordered to be isolated at home. If law enforcement is required for enforcing health officer orders, the [ ] jurisdiction will be contacted by the Public Health Department or hospital.

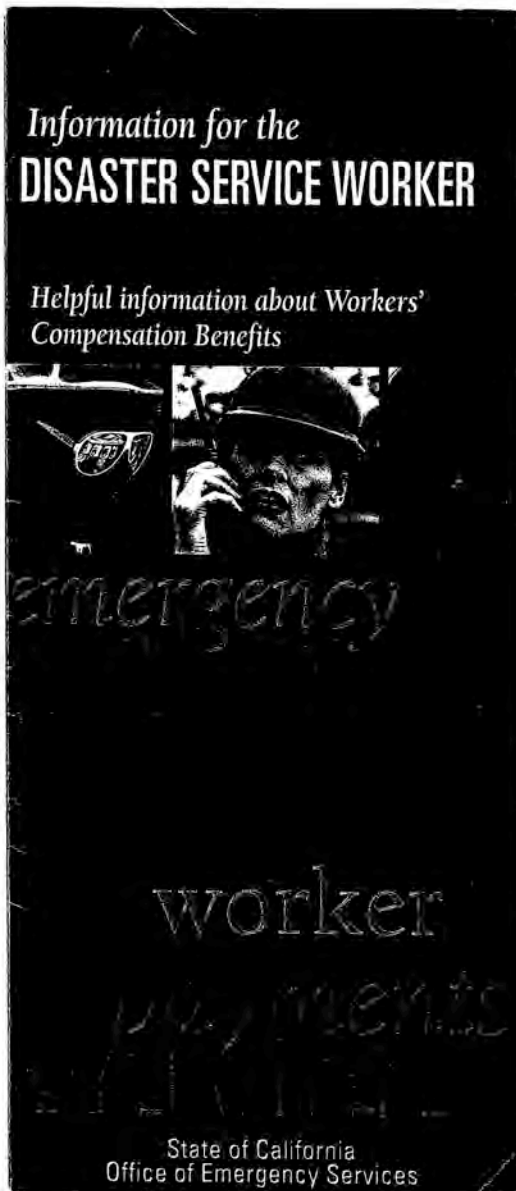
**Personal Protective Equipment (PPE)**

The following PPE are recommended for law enforcement handling or transporting isolated or quarantined individuals or groups:

**Distribute Isolation and Quarantine Alerts during Daily Briefings**

**For Further Information ....**

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**DIVISION OF WORKERS' COMPENSATION  
INFORMATION AND ASSISTANCE OFFICERS**

ANAHEIM	(714) 738-4038
BAKERSFIELD	(661) 395-2514
EUREKA	(707) 441-5723
FRESNO	(559) 445-5355
GOLETA	(805) 968-4158
GROVER BEACH	(805) 481-3296
LONG BEACH	(562) 590-5240
LOS ANGELES	(213) 576-7389
OAKLAND	(510) 622-2861
POMONA	(909) 623-8568
REDDING	(530) 225-2047
RIVERSIDE	(909) 782-4347
SACRAMENTO	(916) 263-2741
SALINAS	(831) 443-3058
SAN BERNARDINO	(909) 383-4522
SAN DIEGO	(619) 525-4589
SAN FRANCISCO	(415) 703-5020
SAN JOSE	(408) 277-1292
SANTA ANA	(714) 558-4597
SANTA MONICA	(310) 452-1188
SANTA ROSA	(707) 576-2452
STOCKTON	(209) 463-6201
VAN NUYS	(818) 901-5374
VENTURA	(805) 654-4701
WALNUT CREEK	(925) 977-8343

**1-800-736-7401** (Recorded information only)

*This pamphlet has been approved by the Administrative Director of the Division of Workers' Compensation.*

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*If you are injured, you  
require*

**What is Workers' Compensation?  
Are Disaster Service Workers covered?**

Workers' compensation is a special kind of benefit to assist employees who are injured on the job or become ill from disease caused by the job. Damage to artificial limbs, dentures or medical braces is also considered an injury if it is work related.

Workers' compensation benefits are set by the Legislature and spelled out in the California Labor Code. One section in the Labor Code defines Disaster Service workers as "employees" under certain conditions and describes their benefits.

**Who is a Disaster Service Worker?  
When is he or she eligible for workers' compensation benefits?**

A Disaster Service worker is anyone who is registered with a Disaster Council approved by the California Emergency Council, or any person ordered to perform services during a "state of war emergency", or any "state of emergency" or "local emergency" by a person or body having authority to command the aid of citizens to carry out assigned duties. A state emergency may be proclaimed by the Governor as a result of such conditions as air pollution, fire, flood, storm, epidemic, riot or earthquake.

A Disaster Service worker might be a reserve policeman, an auxiliary fireman, an emergency welfare worker, a communications specialist, a medical worker, a transportation specialist, a clerk, or anyone qualified to perform services in one of a number of fields.

Any Disaster Service worker is eligible for workers' compensation benefits while performing assigned duties or undergoing any authorized training activities. However, if the Disaster Service worker or the Disaster Council with which he or she is working is paid for these services, an "employer-employee" relationship exists and an injured worker would be entitled instead to workers' compensation benefits in the usual way and not under the special provisions for Disaster Service workers. Also, any members registered as active firefighters of any regularly organized and municipally supported volunteer fire department are excluded from coverage for Disaster Service benefits.

If you are engaged in regularly scheduled Disaster Service activities, including authorized training, your coverage is only during such activities—not while you are en route between your home and the place to which you are to report for service or training. However, if you are a Disaster Service worker suddenly called to duty during an emergency, your workers' compensation coverage starts when you leave your house and lasts until you are able to return, as long as you make no route deviations for personal reasons.

**What are the workers' compensation benefits for Disaster Service Workers?**

If you are injured, you will receive the medical care your condition requires at no cost to you.

*You will receive the medical care your condition requires at no cost to you.*

During the first 30 days following the date that the injury was reported on the "Employee Report of Injury Form" your treating doctor may be designated by your employer or State Compensation Insurance Fund, who is the adjusting agency for Disaster Service injury claims. The "Employee Report of Injury Form" should be provided to you by the Disaster Council for which you were working and it is imperative that this form be completed and returned to the Disaster Council for forwarding to State Fund as soon as possible so that there will be no undue delay in benefit provision.

If you are dissatisfied with the treating physician during this 30-day period, you can request a change and you will be provided with a panel of names to choose from. After 30 days, you may select a physician of your choice. If, prior to an injury you gave your Disaster Council written notice of the name of your personal physician or chiropractor, who maintains your records of prior care, then you may go to this physician or chiropractor for treatment immediately after injury.

If your injury disables you more than 3 days, you will start receiving the maximum temporary disability benefit allowed by law at the time of injury for the time that disability is authorized by your doctor. There is no 3-day waiting period if your injury requires overnight hospitalization. If you are not hospitalized but your disability extends beyond 14 days, then you will receive retroactive compensation for the 3-day waiting period.

When your condition has stabilized—that is when your doctor reports that it will get neither better nor worse—you may be eligible for further cash benefits if your injury has left you with any lasting effect. This is called

"permanent disability". Permanent disability payments are based on tables that use age and occupation at time of injury along with your doctor's description of the lasting effects of the injury. In cases of extreme permanent disability a life pension may be payable, and would be paid at the maximum level allowed by law where an injury has left a Disaster Service worker totally disabled for life. If an injury leads to death, surviving dependents would be entitled to death benefits which would normally be paid over several years time. In addition, a burial allowance is paid.

For current rates and benefit levels, you may call the State Fund Claims representative who specializes in handling Disaster Service injury claims in Sacramento.

**Who pays these benefits and where does the money come from?**

The State Compensation Insurance Fund pays workers' compensation benefits to Disaster Service workers on behalf of the Disaster Service Councils. The State Fund is a State Division within the Department of Industrial Relations. The monies for these benefits come from special funds appropriated by the California State Legislature.

**Who reports the injuries?**

The Director of your Disaster Council is responsible for reporting any injury as soon as possible to State Fund, Sacramento State Contracts office using a specified form and in no case more than five days after his or her knowledge of the injury.

[www.scif.com](http://www.scif.com)

**What should I do if I am injured?**

Report it immediately to your supervisor. The supervisor is responsible for providing you with the "Employee Report of Injury Form". It is your responsibility to complete your portion of the form and return it to your supervisor as soon as possible so that a benefit determination will not be delayed.

It should be noted that legislation which became effective January 1, 1992 states that "any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers' compensation benefits or payments is guilty of a felony."

**What if I have further questions about my benefits now or after injury?**

Contact the State Fund, Sacramento State Contract Services Office and ask to speak to the claims representative who specializes in Disaster Service workers' claims. The representative will be glad to answer any questions you might have.

**What if there is disagreement as to entitlement to workers' compensation benefits?**

The workers' compensation system was designed to provide benefits automatically. However, on occasion there are situations in which benefits are denied or in which you may believe you are not receiving all the benefits to which you are entitled. If after discussion with a State Fund claims representative you are not able to reach an agreement, you may request assistance from the State Division of Workers' Compensation which is a section of the California Department of Industrial Relations. The Division has established an Information and Assistance Officer program to aid you in resolving such problems quickly and informally. Simply contact the nearest local

office of the Division of Workers' Compensation and request the name of the Information and Assistance Officer for your area.

If the Division of Workers' Compensation is unable to resolve your problem, you may engage an attorney to represent you. An attorney would proceed in your behalf to informally resolve the problem. If informal attempts by the attorney are also not successful, then the final step would be for the attorney to file an "application" for a hearing before a Judge of the Workers' Compensation Appeals Board. If the Board grants you an award of benefits, it would set aside part of it as your attorney's fee—usually between 10 and 15 percent.

**STATE FUND  
STATE CONTRACT SERVICES  
SACRAMENTO**

2450 Venture Oaks Way, Suite 500  
Sacramento, CA 95833

(916) 567-7500

**24-hour Claims Reporting Center  
1-888-222-3211**

[www.scif.com](http://www.scif.com)



**WORKERS’ COMPENSATION CLAIM PROCEDURES**

**Covered activities**

Registered DSW volunteers may file a claim for injuries sustained while engaged in the following activities:

- Performing disaster service, including travel to and from the incident site, when called to duty during an emergency or disaster, or while participating in a search and rescue operation.
- Participating in an authorized and documented, planned disaster training activity or disaster exercise. Coverage for these activities does not include travel to and from the training site.

Unregistered volunteers impressed into disaster service by a public official having the authority to do so, may file a claim for injuries sustained while performing that service. Unregistered volunteer workers not impressed into service may not file a claim if injured during a training activity or disaster exercise.

**Supervising Agency Responsibilities**

The supervising agency is responsible for briefing registered DSW volunteers on injury reporting procedures. This should be done as part of the initial safety training.

Two State Compensation Insurance Fund (SCIF) forms, a written narrative of the incident, and a copy of the DSWV Registration form including the loyalty oath must be submitted to properly initiate a claim:

1. SCIF Form 3301, *Employee’s Claim for Workers’ Compensation Benefits (revised with new header address, June 2000)*. This form must be provided to the DSW volunteer within 24 hours<sup>3</sup> of the supervising agency receiving knowledge that an injury occurred or is alleged. The injured DSW volunteer should fill out and sign the form, returning it to the supervisor within 3 days (72 hours) of requesting the form.
2. SCIF Form 3267, *Employer’s Report of Occupational Injury*. This form must be sent to SCIF within 5 days<sup>4</sup> of the supervising agency receiving knowledge that an injury occurred or is alleged.
3. A brief and clear, written narrative of the incident leading to the injury.
4. A copy of the original DSW volunteer registration form including the signed loyalty oath.

Copies of these forms should be submitted to both SCIF and the Governor’s Office of Emergency Services (State OES).

<sup>3</sup> SCIF Brochure #13760, *Information for the Disaster Service Worker About Workers’ Compensation Benefits*, may be given to an injured DSW volunteer at the same time. Brochures may be obtained from your local SCIF office or from the Governor’s Office of Emergency Services.

<sup>4</sup> Late reporting may result in penalties being paid from the DSWVP workers’ compensation insurance, disaster relief fund.

**STATE COMPENSATION INSURANCE FUND OFFICES**

*Instructions: As of February, 2000 all DSW claim documents should be sent directly to:*

State Compensation Insurance Fund Office (SCIF)  
 DSW Claims Representative  
 P.O. Box 659011  
 Sacramento, CA 95865-9011  
 (916) 567-7629  
 FAX (916) 567-7550

**GOVERNOR'S OFFICE OF EMERGENCY SERVICES**

*Send copies of claims and correspondence to:*

Governor's Office of Emergency Services  
 Planning & Technological Assistance Branch  
 Attn: DSW Volunteer Program Coordinator  
 P.O. Box 419047  
 Rancho Cordova, CA 95741-9047  
 (916) 464-3200  
 FAX: (916) 464-3208

**Claim Package Assembly and Distribution**

**Document Summary**

Forward the following documents to:	SCIF Form 3301	SCIF Form 3267	Narrative or Incident Report	DSW Registration Form incl. Oath (copy)
SCIF	X (original)	X (original) + 2 <sup>nd</sup> copy	X	X
Governor's OES	X	X (3 <sup>rd</sup> copy)	X	X
Supervising Agency	X	X	X	retain original
Injured DSW volunteer (claimant)	X			

The following pages have step-by-step instructions for filling out and submitting claim forms.

IF YOU NEED SCIF FORMS, CALL (916) 567-7526

24-hour Claims Reporting Center, call 1-888-222-3211

## **form 3301:**

### **Workers’ Compensation Claim Form**

*Employer: You are required to date this form and provide copies to your insurer or claims administrator and to the employee, dependent, or representative who filed the claim within one working day of receipt of the form from the employee.*

*Please send State Fund the original, and retain a copy of your employee’s Workers’ Compensation Claim Form for your records.*

**Workers’ Compensation Claim Form (DWC 1) & Notice of Potential Eligibility**

**Formulario de Reclamo de Compensación para Trabajadores (DWC 1) y Notificación de Posible Elegibilidad**



If you are injured or become ill, either physically or mentally, because of your job, including injuries resulting from a workplace crime, you may be entitled to workers’ compensation benefits. Attached is the form for filing a workers’ compensation claim with your employer. **You should read all of the information below.** Keep this sheet and all other papers for your records. You may be eligible for some or all of the benefits listed depending on the nature of your claim. If required you will be notified by the claims administrator, who is responsible for handling your claim, about your eligibility for benefits.

To file a claim, complete the “Employee” section of the form, keep one copy and give the rest to your employer. Your employer will then complete the “Employer” section, give you a dated copy, keep one copy and send one to the claims administrator. Benefits can’t start until the claims administrator knows of the injury, so complete the form as soon as possible.

**Medical Care:** Your claims administrator will pay all reasonable and necessary medical care for your work injury or illness. Medical benefits may include treatment by a doctor, hospital services, physical therapy, lab tests, x-rays, and medicines. Your claims administrator will pay the costs directly so you should never see a bill. For injuries occurring on or after 1/1/04, there is a limit on some medical services.

**The Primary Treating Physician (PTP)** is the doctor with the overall responsibility for treatment of your injury or illness. Generally your employer selects the PTP you will see for the first 30 days, however, in specified conditions, you may be treated by your pre-designated doctor. If a doctor says you still need treatment after 30 days, you may be able to switch to the doctor of your choice. Special rules apply if your employer offers a Health Care Organization (HCO) or after 1/1/05, has a medical provider network. Contact your employer for more information. If your employer has not put up a poster describing your rights to workers’ compensation, you may choose your own doctor immediately.

Within one working day after an employee files a claim form, the employer shall authorize the provision of all treatment, consistent with the applicable treating guidelines, for the alleged injury and shall continue to provide treatment until the date that liability for the claim is accepted or rejected. Until the date the claim is accepted or rejected, liability for medical treatment shall be limited to ten thousand dollars (\$10,000).

**Disclosure of Medical Records:** After you make a claim for workers’ compensation benefits, your medical records will not have the same privacy that you usually expect. If you don’t agree to voluntarily release medical records, a workers’ compensation judge may decide what records will be released. If you request privacy, the judge may “seal” (keep private) certain medical records.

**Payment for Temporary Disability (Lost Wages):** If you can’t work while you are recovering from a job injury or illness, you will receive temporary disability payments. These payments may change or stop when your doctor says you are able to return to work. These benefits are tax-free. Temporary disability payments are two-thirds of our average weekly pay, within minimums and maximums set by state law. Payments are not made for the first three days you are off the job unless you are hospitalized overnight or cannot work for more than 14 days.

Si Ud. se lesiona o se enferma, ya sea física o mentalmente, debido a su trabajo, incluyendo lesiones que resulten de un crimen en el lugar de trabajo, es posible que Ud. tenga derecho a beneficios de compensación para trabajadores. Se adjunta el formulario para presentar un reclamo de compensación para trabajadores con su empleador. **Ud. debe leer toda la información a continuación.** Guarde esta hoja y todos los demás documentos para sus archivos. Es posible que usted reúna los requisitos para todos los beneficios, o parte de éstos, que se enumeran, dependiendo de la índole de su reclamo. Si se requiere, el/la administrador(a) de reclamos, quien es responsable del manejo de su reclamo, le notificará a usted, lo referente a su elegibilidad para beneficios.

Para presentar un reclamo, complete la sección del formulario designada para el “Empleado”, guarde una copia, y déle el resto a su empleador. Entonces, su empleador completará la sección designada para el “Empleador”, le dará a Ud. una copia fechada, guardará una copia, y enviará una al/la administrador(a) de reclamos. Los beneficios no pueden comenzar hasta, que el/la administrador(a) de reclamos se entere de la lesión, así que complete el formulario lo antes posible.

**Atención Médica:** Su administrador(a) de reclamos pagará toda la atención médica razonable y necesaria, para su lesión o enfermedad relacionada con el trabajo. Es posible que los beneficios médicos incluyan el tratamiento por parte de un médico, los servicios de hospital, la terapia física, los análisis de laboratorio y las medicinas. Su administrador(a) de reclamos pagará directamente los costos, de manera que usted nunca verá un cobro. Para lesiones que ocurren en o después de 1/1/04, hay un límite de visitas para ciertos servicios médicos.

**El Médico Primario que le Atiende-Primary Treating Physician PTP** es el médico con toda la responsabilidad para dar el tratamiento para su lesión o enfermedad. Generalmente, su empleador selecciona al PTP que Ud. verá durante los primeros 30 días. Sin embargo, en condiciones específicas, es posible que usted pueda ser tratado por su médico pre-designado. Si el doctor dice que usted aún necesita tratamiento después de 30 días, es posible que Ud. pueda cambiar al médico de su preferencia. Hay reglas especiales que son aplicables cuando su empleador ofrece una Organización del Cuidado Médico (HCO) o después de 1/1/05 tiene un Sistema de Proveedores de Atención Médica. Hable con su empleador para más información. Si su empleador no ha colocado un poster describiendo sus derechos para la compensación para trabajadores, Ud. puede seleccionar a su propio médico inmediatamente.

El empleador autorizará todo tratamiento médico consistente con las directivas de tratamiento aplicables a la lesión o enfermedad, durante el primer día laboral después que el empleado efectúa un reclamo para beneficios de compensación, y continuará proveyendo este tratamiento hasta la fecha en que el reclamo sea aceptado o rechazado. Hasta la fecha en que el reclamo sea aceptado o rechazado, el tratamiento médico será limitado a diez mil dólares (\$10,000).

**Divulgación de Expedientes Médicos:** Después de que Ud. presente un reclamo para beneficios de compensación para los trabajadores, sus expedientes médicos no tendrán la misma privacidad que usted normalmente espera. Si Ud. no está de acuerdo en divulgar voluntariamente los expedientes médicos, un(a) juez de compensación para trabajadores posiblemente decida qué expedientes se revelarán. Si Ud. solicita privacidad, es posible que el/la juez “selle” (mantenga privados) ciertos expedientes médicos.

**Pago por Incapacidad Temporal (Sueldos Perdidos):** Si Ud. no puede trabajar, mientras se está recuperando de una lesión o enfermedad relacionada con el trabajo, Ud. recibirá pagos por incapacidad temporal. Es posible que estos pagos cambien o paren, cuando su médico diga que Ud. está en condiciones de regresar a trabajar. Estos beneficios son libres de

**Workers' Compensation Claim Form (DWC 1) & Notice of Potential Eligibility****Formulario de Reclamo de Compensación para Trabajadores (DWC 1) y Notificación de Posible Elegibilidad**

**Return to Work:** To help you to return to work as soon as possible, you should actively communicate with your treating doctor, claims administrator, and employer about the kinds of work you can do while recovering. They may coordinate efforts to return you to modified duty or other work that is medically appropriate. This modified or other duty may be temporary or may be extended depending on the nature of your injury or illness.

**Payment for Permanent Disability:** If a doctor says your injury or illness results in a permanent disability, you may receive additional payments. The amount will depend on the type of injury, your age, occupation, and date of injury.

**Vocational Rehabilitation (VR):** If a doctor says your injury or illness prevents you from returning to the same type of job and your employer doesn't offer modified or alternative work, you may qualify for VR. If you qualify, your claims administrator will pay the costs, up to a maximum set by state law. VR is a benefit for injuries that occurred prior to 2004.

**Supplemental Job Displacement Benefit (SJDB):** If you do not return to work within 60 days after your temporary disability ends, and your employer does not offer modified or alternative work, you may qualify for a nontransferable voucher payable to a school for retraining and/or skill enhancement. If you qualify, the claims administrator will pay the costs up to the maximum set by state law based on your percentage of permanent disability. SJDB is a benefit for injuries occurring on or after 1/1/04.

**Death Benefits:** If the injury or illness causes death, payments may be made to relatives or household members who were financially dependent on the deceased worker.

**It is illegal for your employer** to punish or fire you for having a job injury or illness, for filing a claim, or testifying in another person's workers' compensation case (Labor Code 132a). If proven, you may receive lost wages, job reinstatement, increased benefits, and costs and expenses up to limits set by the state.

You have the right to disagree with decisions affecting your claim. If you have a disagreement, contact your claims administrator first to see if you can resolve it. If you are not receiving benefits, you may be able to get State Disability Insurance (SDI) benefits. Call State Employment Development Department at (800) 480-3287.

You can obtain free information from an information and assistance officer of the State Division of Workers' Compensation, or you can hear recorded information and a list of local offices by calling (800) 736-7401. You may also go to the DWC web site at [www.dir.ca.gov](http://www.dir.ca.gov). Link to Workers' Compensation.

**You can consult with an attorney.** Most attorneys offer one free consultation. If you decide to hire an attorney, his or her fee will be taken out of some of your benefits. For names of workers' compensation attorneys, call the State Bar of California at (415) 538-2120 or go to their web site at [www.californiaspecialist.org](http://www.californiaspecialist.org).

impuestos. Los pagos por incapacidad temporal son dos tercios de su pago semanal promedio, con cantidades mínimas y máximas establecidas por las leyes estatales. Los pagos no se hacen durante los primeros tres días en que Ud. no trabaje, a menos que Ud. sea hospitalizado(a) de noche, o no pueda trabajar durante más de 14 días.

**Regreso al Trabajo:** Para ayudarle a regresar a trabajar lo antes posible, Ud. debe comunicarse de manera activa con el médico que le atiende, el/la administrador(a) de reclamos y el empleador, con respecto a las clases de trabajo que Ud. puede hacer mientras se recupera. Es posible que ellos coordinen esfuerzos para regresarle a un trabajo modificado, o a otro trabajo, que sea apropiado desde el punto de vista médico. Este trabajo modificado, u otro trabajo, podría extenderse o no temporalmente, dependiendo de la índole de su lesión o enfermedad.

**Pago por Incapacidad Permanente:** Si el doctor dice que su lesión o enfermedad resulta en una incapacidad permanente, es posible que Ud. reciba pagos adicionales. La cantidad dependerá de la clase de lesión, su edad, su ocupación y la fecha de la lesión.

**Rehabilitación Vocacional:** Si el doctor dice que su lesión o enfermedad no le permite regresar a la misma clase de trabajo, y su empleador no le ofrece trabajo modificado o alterno, es posible que usted reúna los requisitos para rehabilitación vocacional. Si Ud. reúne los requisitos, su administrador(a) de reclamos pagará los costos, hasta un máximo establecido por las leyes estatales. Este es un beneficio para lesiones que ocurrieron antes de 2004.

**Beneficio Suplementario por Desplazamiento de Trabajo:** Si Ud. no vuelve al trabajo en un plazo de 60 días después que los pagos por incapacidad temporal terminan, y su empleador no ofrece un trabajo modificado o alterno, es posible que usted reúna los requisitos para recibir un vale no-transferible pagadero a una escuela para recibir un nuevo entrenamiento y/o mejorar su habilidad. Si Ud. reúne los requisitos, el administrador(a) de reclamos pagará los costos hasta un máximo establecido por las leyes estatales basado en su porcentaje del incapacidad permanente. Este es un beneficio para lesiones que ocurren en o después de 1/1/04.

**Beneficios por Muerte:** Si la lesión o enfermedad causa la muerte, es posible que los pagos se hagan a los parientes o a las personas que vivan en el hogar, que dependían económicamente del/de la trabajador(a) difunto(a).

**Es ilegal que su empleador** le castigue o despida, por sufrir una lesión o enfermedad en el trabajo, por presentar un reclamo o por atestiguar en el caso de compensación para trabajadores de otra persona. (El Código Laboral sección 132a). Si es probado, puede ser que usted reciba pagos por pérdida de sueldos, reposición del trabajo, aumento de beneficios, y gastos hasta un límite establecido por el estado.

Ud. tiene derecho a estar en desacuerdo con las decisiones que afecten su reclamo. Si Ud. tiene un desacuerdo, primero comuníquese con su administrador(a) de reclamos, para ver si usted puede resolverlo. Si usted no está recibiendo beneficios, es posible que Ud. pueda obtener beneficios de Seguro Estatal de Incapacidad (SDI). Llame al Departamento Estatal del Desarrollo del Empleo (EDD) al (800) 480-3287.

Ud. puede obtener información gratis, de un oficial de información y asistencia, de la División estatal de Compensación al Trabajador (*Division of Workers' Compensation - DWC*), o puede escuchar información grabada, así como una lista de oficinas locales, llamando al (800) 736-7401. Ud. también puede ir al sitio electrónico en el Internet de la DWC en [www.dir.ca.gov](http://www.dir.ca.gov). Enlázese a la sección de Compensación para Trabajadores.

**Ud. puede consultar con un(a) abogado(a).** La mayoría de los abogados ofrecen una consulta gratis. Si Ud. decide contratar a un(a) abogado(a), sus honorarios se tomarán de sus beneficios. Para obtener nombres de abogados de compensación para trabajadores, llame a la Asociación Estatal de Abogados de California (*State Bar*) al (415) 538-2120, ó vaya a su sitio electrónico en el Internet en [www.californiaspecialist.org](http://www.californiaspecialist.org).

State of California  
 Department of Industrial Relations  
 DIVISION OF WORKERS' COMPENSATION



Estado de California  
 Departamento de Relaciones Industriales  
 DIVISION DE COMPENSACIÓN AL TRABAJADOR

**WORKERS' COMPENSATION CLAIM FORM (DWC 1)**

**PETITION DEL EMPLEADO PARA DE COMPENSACIÓN DEL TRABAJADOR (DWC 1)**

**Employee:** Complete the "Employee" section and give the form to your employer. Keep a copy and mark it "Employee's Temporary Receipt" until you receive the signed and dated copy from your employer. You may call the Division of Workers' Compensation and hear recorded information at (800) 736-7401. An explanation of workers' compensation benefits is included as the cover sheet of this form.

**Empleado:** Complete la sección "Empleado" y entregue la forma a su empleador. Quédese con la copia designada "Recibo Temporal del Empleado" hasta que Ud. reciba la copia firmada y fechada de su empleador. Ud. puede llamar a la División de Compensación al Trabajador al (800) 736-7401 para oír información grabada. En la hoja cubierta de esta forma esta la explicación de los beneficios de compensación al trabajador.

You should also have received a pamphlet from your employer describing workers' compensation benefits and the procedures to obtain them.

Ud. también debería haber recibido de su empleador un folleto describiendo los beneficios de compensación al trabajador lesionado y los procedimientos para obtenerlos.

Any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers' compensation benefits or payments is guilty of a felony.

Toda aquella persona que a propósito haga o cause que se produzca cualquier declaración o representación material falsa o fraudulenta con el fin de obtener o negar beneficios o pagos de compensación a trabajadores lesionados es culpable de un crimen mayor "felonia".

**Employee—complete this section and see note above    Empleado—complete esta sección y note la notación arriba.**

1. Name. *Nombre.* \_\_\_\_\_ Today's Date. *Fecha de Hoy.* \_\_\_\_\_

2. Home Address. *Dirección Residencial.* \_\_\_\_\_

3. City. *Ciudad.* \_\_\_\_\_ State. *Estado.* \_\_\_\_\_ Zip. *Código Postal.* \_\_\_\_\_

4. Date of Injury. *Fecha de la lesión (accidente).* \_\_\_\_\_ Time of Injury. *Hora en que ocurrió.* \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

5. Address and description of where injury happened. *Dirección/lugar dónde ocurrió el accidente.* \_\_\_\_\_

6. Describe injury and part of body affected. *Describe la lesión y parte del cuerpo afectada.* \_\_\_\_\_

7. Social Security Number. *Número de Seguro Social del Empleado.* \_\_\_\_\_

8. Signature of employee. *Firma del empleado.* \_\_\_\_\_

**Employer—complete this section and see note below.    Empleador—complete esta sección y note la notación abajo.**

9. Name of employer. *Nombre del empleador.* \_\_\_\_\_

10. Address. *Dirección.* \_\_\_\_\_

11. Date employer first knew of injury. *Fecha en que el empleador supo por primera vez de la lesión o accidente.* \_\_\_\_\_

12. Date claim form was provided to employee. *Fecha en que se le entregó al empleado la petición.* \_\_\_\_\_

13. Date employer received claim form. *Fecha en que el empleado devolvió la petición al empleador.* \_\_\_\_\_

14. Name and address of insurance carrier or adjusting agency. *Nombre y dirección de la compañía de seguros o agencia administradora de seguros.*  
**State Compensation Insurance Fund** \_\_\_\_\_

15. Insurance Policy Number. *El número de la póliza de Seguro.* \_\_\_\_\_

16. Signature of employer representative. *Firma del representante del empleador.* \_\_\_\_\_

17. Title. *Título.* \_\_\_\_\_ 18. Telephone. *Teléfono.* \_\_\_\_\_

**Employer:** You are required to date this form and provide copies to your insurer or claims administrator and to the employee, dependent or representative who filed the claim within one working day of receipt of the form from the employee.

**Empleador:** Se requiere que Ud. feche esta forma y que propéa copias a su compañía de seguros, administrador de reclamos, o dependiente/representante de reclamos y al empleado que hayan presentado esta petición dentro del plazo de un día hábil desde el momento de haber sido recibida la forma del empleado.

SIGNING THIS FORM IS NOT AN ADMISSION OF LIABILITY

EL FIRMAR ESTA FORMA NO SIGNIFICA ADMISION DE RESPONSABILIDAD

- Employer copy/Copia del Empleador     Employee copy/Copia del Empleado     Claims Administrator/Administrador de Reclamos     Temporary Receipt/Recibo del Empleado

SCIF 63301 (REV. 7-04) - DWC Form 1 (REV. 7-04)



## **form 3067:**

### **Employer's Report of Occupational Injury or Illness**

*Call State Fund's 24-hour Claims Reporting Center toll-free at (888) 222-3211 to file your report. A State Fund representative will complete the report with you over the phone and mail you a copy.*

*Alternatively, you may fax your injury report to our toll-free fax line at (800)371-5905. If you choose this method, retain a copy of the report for your records. A State Fund representative will contact you for additional information.*

*NOTICE: California law requires employers to report within five days of knowledge every occupational injury or illness which results in lost time beyond the date of the incident OR requires medical treatment beyond first aid. If an employee subsequently dies as a result of a previously reported injury or illness, the employer must file within five days of knowledge an amended report indicating death. In addition, every serious injury, illness, or death must be reported immediately by telephone or telegraph to the nearest office of the California Division of Occupational Safety and Health.*

State of California  <b>EMPLOYER'S REPORT OF OCCUPATIONAL INJURY OR ILLNESS</b>	<b>STATE COMPENSATION INSURANCE FUND</b> 24-Hour Claims Reporting Center Telephone: (888) 222-3211 Fax (800) 371-5905	OSHA Case No. _____  <input type="checkbox"/> Fatality				
Any person who makes or causes to be made any knowingly false or fraudulent material statement or material representation for the purpose of obtaining or denying workers' compensation benefits or payments is guilty of a felony.						
NOTICE: California law requires employers to report within five days of knowledge every occupational injury or illness which results in lost time beyond the date of the incident OR requires medical treatment beyond first aid. If an employee subsequently dies as a result of a previously reported injury or illness, the employer must file within five days of knowledge an amended report indicating death. In addition, every serious injury, illness, or death must be reported immediately by telephone or telegraph to the nearest office of the California Division of Occupational Safety and Health.						
EMPLOYER	1. FIRM NAME _____	DIVISION _____	1a. Policy Number _____	Please do not use this column		
	2. MAILING ADDRESS (Number and Street, City, Zip) _____		2a. Phone Number _____	Case Number		
	3. LOCATION, if different from Mailing Address (Number, Street, City and Zip) _____		3a. Location Code _____	Ownership		
	4. NATURE OF BUSINESS; e.g., Painting contractor, wholesale grocer, sawmill, hotel, etc. _____	4a. NUMBER OF EMPLOYEE ON THIS DOI _____	5. STATE UNEMPLOYMENT INSURANCE ACCT. NO. _____	Industry		
6. TYPE OF EMPLOYER <input type="checkbox"/> PRIVATE <input type="checkbox"/> STATE <input type="checkbox"/> COUNTY <input type="checkbox"/> CITY <input type="checkbox"/> SCHOOL DIST. <input type="checkbox"/> OTHER GOVERNMENT - SPECIFY _____				Occupation		
INJURY	7. DATE OF INJURY / ONSET OF ILLNESS (m/d/yyyy) _____	8. TIME INJURY/ILLNESS OCCURRED _____ A.M. _____ P.M.	9. TIME EMPLOYEE BEGAN WORK _____ A.M. _____ P.M.	10. IF EMPLOYEE DIED, DATE OF DEATH (m/d/yyyy) _____	Sex	
	11. UNABLE TO WORK FOR AT LEAST ONE FULL DAY AFTER DATE OF INJURY? <input type="checkbox"/> YES <input type="checkbox"/> NO	12. DATE LAST WORKED (m/d/yyyy) _____	13. DATE RETURNED TO WORK (m/d/yyyy) _____	14. IF STILL OFF WORK, CHECK THIS BOX <input type="checkbox"/>	Age	
	15. PAID FULL DAY'S WAGES FOR DATE OF INJURY OR LAST DAY WORKED? <input type="checkbox"/> YES <input type="checkbox"/> NO	16. SALARY BEING CONTINUED? <input type="checkbox"/> YES <input type="checkbox"/> NO	17. DATE OF EMPLOYER'S KNOWLEDGE/NOTICE OF INJURY/ILLNESS (m/d/yyyy) _____	18. DATE EMPLOYEE WAS PROVIDED CLAIM FORM (m/d/yyyy) _____	Daily hours	
	19. SPECIFIC INJURY/ILLNESS AND MEDICAL DIAGNOSIS (if available, e.g., Second degree burns on right arm, tendinitis on left elbow, lead poisoning)			19a. BODY PART AFFECTED _____	Days per Week	
ILLNESS	20. LOCATION WHERE EVENT OR EXPOSURE OCCURRED (Address) _____	20a. ZIP _____	20b. COUNTY _____	21. ON EMPLOYER'S PREMISES? <input type="checkbox"/> YES <input type="checkbox"/> NO	21a. WAS ANOTHER PERSON RESPONSIBLE? <input type="checkbox"/> YES <input type="checkbox"/> NO	
	22. DEPARTMENT WHERE EVENT OR EXPOSURE OCCURRED, e.g., Shipping department, machine shop.			23. OTHER WORKERS INJURED OR ILL IN THIS EVENT? <input type="checkbox"/> YES <input type="checkbox"/> NO		
	24. EQUIPMENT, MATERIALS AND CHEMICALS THE EMPLOYEE WAS USING WHEN EVENT OR EXPOSURE OCCURRED, e.g., Acetylene, welding torch, farm tractor, scaffold.				Weekly Hours	
	25. SPECIFIC ACTIVITY THE EMPLOYEE WAS PERFORMING WHEN EVENT OR EXPOSURE OCCURRED, e.g., Welding seams of metal forms, loading boxes onto truck.				Weekly Wage	
26. HOW INJURY/ILLNESS OCCURRED. DESCRIBE SEQUENCE OF EVENTS. SPECIFY OBJECT OR EXPOSURE WHICH DIRECTLY PRODUCED THE INJURY/ILLNESS. e.g., Worker stepped back to inspect work and slipped on scrap material. As he fell, he brushed against fresh weld, and burned right hand. USE SEPARATE SHEET IF NECESSARY.					County	
27. NAME AND ADDRESS OF PHYSICIAN (Number, Street, City, Zip) _____				27a. Phone Number _____		
28. HOSPITALIZED AS AN INPATIENT OVERNIGHT? <input type="checkbox"/> NO <input type="checkbox"/> YES If yes, then, NAME AND ADDRESS OF HOSPITAL (Number, Street, City, Zip) _____				28a. Phone Number _____		
				29. Employee treated in Emergency Room? <input type="checkbox"/> YES <input type="checkbox"/> NO		
ATTENTION: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. See CCR Title 8 14300.29 (d)(6)-(10) & 14300.35(b)(2)(E)2. Note: Shaded boxes indicate confidential employee information as listed in CCR Title 8 14300.35(b)(2)(E)2.*						
EMPLOYEE	30. EMPLOYEE NAME _____		31. SOCIAL SECURITY NUMBER _____	32. DATE OF BIRTH (m/d/yyyy) _____		
	33. HOME ADDRESS (Number, Street, City, Zip) _____			33a. PHONE NUMBER _____		
	34. SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE	35. OCCUPATION (Regular job title, NO initials, abbreviations or numbers) _____			36. DATE OF HIRE (m/d/yyyy) _____	
	37. EMPLOYEE USUALLY WORKS _____ hours per day _____ days per week _____ total weekly hours		37a. EMPLOYMENT STATUS <input type="checkbox"/> regular, full-time <input type="checkbox"/> part-time <input type="checkbox"/> disabled <input type="checkbox"/> unemployed <input type="checkbox"/> temporary <input type="checkbox"/> seasonal <input type="checkbox"/> laid-off <input type="checkbox"/> other		37b. UNDER WHAT CLASS CODE OF YOUR POLICY WERE WAGES ASSIGNED? _____	
38. GROSS WAGES/SALARY \$ _____ per _____		39. OTHER PAYMENTS NOT REPORTED AS WAGES/SALARY (e.g., tips, meals, overtime, bonuses, etc.)? <input type="checkbox"/> YES <input type="checkbox"/> NO				
Completed By (type or print) _____		Signature & Title _____			Date (m/d/yyyy) _____	

\*Confidential information may be disclosed only to the employee, former employee, or their personal representative (CCR Title 8 14300.35), to others for the purpose of processing a workers' compensation or other insurance claim; and under certain circumstances to a public health or law enforcement agency or to a consultant hired by the employer (CCR Title 8 14300.30). CCR Title 8 14300.40 requires provision upon request to certain state and federal workplace safety agencies.

SCIF 03007 (REV. 9-05)

FILING OF THIS REPORT IS NOT AN ADMISSION OF LIABILITY. A CLAIM FORM MUST BE GIVEN TO THE INJURED WORKER WITHIN ONE WORKING DAY OF YOUR KNOWLEDGE OF OCCUPATIONAL INJURY OR ILLNESS WHICH RESULTS IN LOST TIME OR MEDICAL TREATMENT.



## **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.<sup>77</sup> In lawsuits alleging negligence on the part of a county public health department official, the county 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.<sup>78</sup>

County emergency preparedness and response volunteers may benefit from liability protection under three different sets of laws: the California Emergency Services Act,<sup>79</sup> California Good Samaritan laws and the Federal Volunteer Protection Act of 1997.<sup>80</sup> 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.<sup>81</sup>

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 health care 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.<sup>82</sup>

The Emergency Services Act also affords immunity to non-licensed medical volunteers in emergency situations. It provides that Disaster Service Workers volunteers and unregistered 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.<sup>83</sup>

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<sup>77</sup> California Government Code § 825

<sup>78</sup> California Government Code § 995

<sup>79</sup> California Government Code § 8550 et seq.

<sup>80</sup> 42 U.S.C. §14501-14505

<sup>81</sup> 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.

<sup>82</sup> California Government Code § 8659

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 civil damages under specified circumstances.<sup>84</sup> 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.”<sup>85</sup> 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.<sup>86</sup>

The federal *Volunteer Protection Act of 1997*, limits the personal tort liability of volunteers at nonprofit organizations and government entities.<sup>87</sup> In order for immunity to apply, volunteers must act within the scope of their responsibilities at the time of the act or omission, and must be properly licensed or certified.<sup>88</sup>

The Volunteer Protection Act excludes tort protection to volunteers in the following six instances: 1) for willful or criminal misconduct, 2) gross negligence, 3) harm due to the use of a motor vehicle, vessel or aircraft or any vehicle for which a license or insurance is required; 4) flagrant indifference to the rights or safety of the individual harmed; 5) sexual misconduct, hate crimes, crimes of violence and 6) conduct while under the use of alcohol or drugs.<sup>89</sup>

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<sup>83</sup> California Government Code § 8657

<sup>84</sup> California Business and Professions Code §§ 2395-2396

<sup>85</sup> California Business and Professions Code § 2727.5, 2861.5

<sup>86</sup> California Health and Safety Code § 1799.102

<sup>87</sup> 42 U.S.C. § 14501-14505

<sup>88</sup> 42 U.S.C. § 14503

<sup>89</sup> 42 U.S.C. §14503(a)

## Tool 8 – Protocol for Rapid Verification of Medical Volunteer Credentials



645 South Bascom Avenue  
San Jose, CA 95128  
408.793.2020

### Volunteer Registration Checklist

Profession: \_\_\_\_\_

Date: \_\_\_\_\_

Volunteer Name - Last: \_\_\_\_\_ First: \_\_\_\_\_

- Registration information received via **PAPER FORM** or **DATABASE**
- Check to see if data fields are complete on the registration form. If not, contact registrant for the missing information or, if it can wait, obtain the info when administering the Loyalty Oath and taking the ID photo.
- Verify license**
- a. State of California Department of Consumer Affairs <http://www2.dca.ca.gov>
- Scroll down and click the appropriate profession
  - Enter volunteers last name \_\_\_\_\_ and first name \_\_\_\_\_
  - Select Santa Clara County using the drop down menu, click FIND
  - Print license information.
- b. American Board of Medical Specialties (*physicians*) [www.abms.org/login.asp](http://www.abms.org/login.asp)
- Email [mvdr@hhs.sccgov.org](mailto:mvdr@hhs.sccgov.org) Password: \_\_\_\_\_
  - Click **ACCEPT**
  - Enter volunteers last name \_\_\_\_\_ and first name \_\_\_\_\_, state and press SEARCH
  - Click on the volunteers name and PRINT their certification,
- c. Santa Clara County Medical Association (*physicians*) [www.sccma.org](http://www.sccma.org)
- Click onto physician database on the right of the website
  - Fill out appropriate fields and click SEARCH.
  - Print SCCMA information.
- Screen the Office of Inspector General (OIG) website** <http://exclusions.oig.hhs.gov>
- a. Access the HHS OIG website database and DHHS/OIG Exclusion database
- Enter volunteers last name \_\_\_\_\_ and first name \_\_\_\_\_. Click search
  - If there appears to be a match, print out results, and referred the volunteer to MVDR coordinator so that they will be contacted.
- Follow-up with volunteer and set up DSW Loyalty Oath and ID card photo
- Create ID card
- Mail Membership Packet to volunteer

FINAL VERSION – OCT 2005

[mvdr@hhs.sccgov.org](mailto:mvdr@hhs.sccgov.org) • [www.sccphd.org/odms](http://www.sccphd.org/odms)  
MVDR is a project of the Santa Clara County Public Health Department and the Volunteer Center of Silicon Valley.

## Tool 9 - Disaster Service Worker Loyalty Oath

MVDR ID # (To be assigned by MVDR personnel): \_\_\_\_\_



### VOLUNTEER PLEDGE AND CONSENT

As a Medical Volunteers for Disaster Response (MVDR) volunteer, I agree to perform my assignment to the best of my ability, to accept supervision from the agency to which I'm assigned (Supervising Agency) for the duration of the assignment, to observe all applicable safety guidelines and to observe all rules and policies of the County of Santa Clara the Supervising Agency. I agree to the physical demands required for duty assigned. I understand and acknowledge that I am not an employee of the County of Santa Clara or the supervising agency and as such, am not eligible to compensation for the services I am voluntarily providing. I understand that the County of Santa Clara will not insure or indemnify me for the services I am voluntarily providing.

I hereby certify that the statements provided during registration are true and correct. I acknowledge that my eligibility to volunteer is subject to verification of all statements provided and the outcome of the credential screening process of the Santa Clara County Public Health Department.

Volunteer Signature \_\_\_\_\_

Date \_\_\_\_\_

### DISASTER SERVICE WORKER LOYALTY OATH (Govt. Code §3102) To be completed in the presence of Disaster Service Worker Official

I, \_\_\_\_\_, do solemnly swear that I will support and defend the Constitution of the United States and the Constitution of the State of California against all enemies, foreign and domestic; that I will bear true faith and allegiance to the Constitution of the United States and the constitution of the state of California; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties which I am about to enter. I certify under penalty of perjury that the foregoing is true and correct.

Signature of Disaster Volunteer \_\_\_\_\_

Date \_\_\_\_\_

If under 18 years old, signature of parent or guardian \_\_\_\_\_

Signature of official authorized to administer loyalty oath \_\_\_\_\_

Title \_\_\_\_\_

(For a volunteer registering for an incident or a single event the expiration date is set at the discretion of the associated Disaster Council and may exceed one year, (Govt. Code §3102)

## County of Santa Clara

Public Health Department  
3003 Moorpark Avenue  
San Jose, California 95128

Martin Fenstersheib, MD, MPH  
Health Officer

### **PHYSICIAN ALERT – Avian Influenza**

**DATE:** December 9, 2005

**TO:** All Santa Clara County Physicians

**FROM:** Martin Fenstersheib, MD, MPH Health Officer

**RE: Suspect Avian Influenza – Surveillance, Reporting, and Infection Control**

Outbreaks of influenza A (H5N1) in domestic poultry and wild birds have been confirmed in many countries in Asia (Cambodia, China, Taiwan, Hong Kong SAR, Malaysia, Indonesia, Japan, Laos, South Korea, Thailand, and Vietnam) and more recently in eastern European countries (Turkey, Romania, Croatia and Russia). Since December 2003, human cases have been reported from several of these countries experiencing widespread outbreaks among domestic poultry. To date, 137 cases and 70 deaths in humans have been reported to the World Health Organization from Vietnam (93 cases with 42 deaths), Thailand (22 cases with 14 deaths), Cambodia (4 cases, all fatal), Indonesia (13 cases, 7 deaths) and most recently, China (5 cases, 2 deaths). With the exception of limited household transmission explaining a family cluster Thailand, all cases likely acquired infection from direct contact with ill or dead birds. To date, the H5N1 virus infecting birds is not well adapted to human-to-human transmission. In the United States, there have been no documented H5N1 infections in wild or domestic birds, nor have there been any cases in persons returning from travel to affected areas. However, the potential for infection among Santa Clara County residents exists because of:

- 1) frequent travel by county residents to areas of Asia with widespread outbreaks in poultry.
- 2) the possibility that the H5N1 virus will mutate and acquire characteristics that would facilitate human-to-human transmission.

This alert will update you on when to suspect a case of avian (H5N1) influenza, how to report it to us, how to collect clinical specimens and where to send them, and how to implement infection control measures.

#### **Surveillance**

Although the risk of infection remains highest in persons who have traveled to countries in Southeast Asia where widespread outbreaks in poultry are occurring, persons with history of travel to Turkey, Romania, Croatia and other European countries with documented influenza A (H5N1) in poultry may be considered

## Tool 10 – Santa Clara County Physician Alert Case Definition Avian Influenza

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at risk. Exposure risk is highest for persons who have had direct contact with infected poultry, or surfaces and objects contaminated by their droppings (e.g. persons exposed during slaughter, de-feathering,

butchering, and preparation of poultry for cooking). Therefore, individuals who have traveled to a country with avian influenza A (H5N1) who report direct exposure to sick or dying poultry and who exhibit respiratory symptoms should be considered at high risk. There is no evidence that properly cooked poultry or poultry products can be a source of infection.

Please notify us immediately if you evaluate a patient who meets the following criteria:

1) Hospitalized patient with:

- a) Radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established,

AND

- b) History of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza in poultry and/or humans (see “Resources” below for a link to updated listing of H5N1-affected countries).

OR

2) Hospitalized or ambulatory patients with:

- a) Documented temperature of >38 C (>100.4 F), AND
- b) One or more of the following: cough, sore throat, shortness of breath, AND
- c) History of contact with poultry (e.g. visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected human case of influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

In this second group, testing for avian influenza will be considered on a case-by-case basis after consultation with the Health Officer on call.

### **Reporting**

Please report suspected avian influenza cases immediately. During normal business hours, call the Disease Prevention and Control Program at 408-885-4214; after hours and weekends call County Communications at 408-299-2501 and ask to speak with the Health Officer on call.

### **Laboratory specimen collection**

If you see a patient with suspected avian influenza who meets the criteria above,

- 1) Collect a nasal and throat swab (use Dacron swabs only) and place each swab into a separate vial of viral transport media (VTM). Break off sticks leaving swabs in the VTM.
- 2) Collect an acute phase blood specimen, 5-10 ml whole clotted blood, in a red top or serum separator tube, for serologic testing for influenza and a panel of other respiratory viruses. A convalescent specimen should be drawn in 14 – 21 days. DRAW PATIENT ON-SITE. DO NOT SEND THEM TO AN OFF-SITE DRAW STATION.
- 3) Label both vials and any serum specimen with the following information: PATIENT’S NAME, DATE COLLECTED, AND TYPE OF SPECIMEN. Because culture is not recommended on these cases,

## Tool 10 – Santa Clara County Physician Alert Case Definition Avian Influenza

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please indicate on all forms, documents and specimens that this is a suspected case of avian influenza A (H5N1).

- 4) Complete the attached Specimen Submittal Form for Suspect Avian Influenza A (H5N1) for each patient with the following information: patient's name, age, date of illness onset, type of specimen(s), date collected and clinical symptoms. (If the attached form is not available, your standard laboratory submittal form is acceptable).
- 5) Have specimen(s) and submittal form sent to the Santa Clara County Public Health Laboratory at 2220 Moorpark Ave, 2<sup>nd</sup> flr, San Jose, CA 95128. Telephone: 408-885-4272.

While commercial antigen detection testing for influenza may continue to be sent to your current laboratory, it is important to understand that these tests are of limited sensitivity and specificity. A negative rapid influenza test from a suspect case does not rule out possible avian influenza and further testing such as molecular and viral culture may be needed. Specimens for viral culture from suspect patients are to be tested only at the local Public Health Laboratory. Respiratory specimens for viral culture should not be sent to commercial or clinical laboratories until influenza has been ruled out.

If you have questions regarding specimen collection or submittal, please call the Santa Clara County Public Health Laboratory at 408-885-4272.

### **Infection Control**

All patients presenting to a healthcare setting with fever and respiratory symptoms should be questioned regarding their recent travel history and managed using CDC's Respiratory Hygiene and Cough Etiquette (<http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm> ). Patients in emergency departments, examination rooms, and admitted to a hospital should be placed on airborne precautions. This includes the following:

- 1) Airborne isolation for the patient
  - in acute care setting, place patient in an airborne isolation room
  - in ambulatory settings, place patient in appropriately ventilated airborne isolation rooms when available. If rooms are not available, place patient in an examination room at the farthest distance from other patient rooms, preferably one that is at the end of the ventilation circuit and place a portable HEPA filter in that room. Once the patient leaves, the room should remain vacant for the appropriate time according to the number of air changes per hour, usually one hour, to allow for a full exchange of air.
- 2) Personal protective equipment (PPE) for health care personnel
  - wear fit-tested NIOSH-approved respiratory protection (N95 or higher) when entering the room
  - wear eye protectors (eye shields or goggles) when in direct face-to-face contact with a coughing patient
  - wear disposable non-sterile gloves when in contact with respiratory secretions, blood or other bodily fluids
  - consider wearing a disposable long-sleeved gown when direct face-to-face contact is anticipated
  - wash hands (or use an alcohol-based hand hygiene product if hands are not visibly soiled) after contact with all patients and environmental surfaces close to the patient
  - do not touch the mucous membranes of your own nose, eye, or mouth with unwashed hands.

Manage patient with appropriate airborne isolation precautions for 14 days after onset of symptoms, or until an alternate diagnosis is established or infection with influenza A (H5N1) has been excluded.

## Tool 10 – Santa Clara County Physician Alert Case Definition Avian Influenza

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If patient can be managed at home (patients managed as outpatients or hospitalized patients discharged before 14 days):

1) Instruct patient to:

- Not to go to work, school, out-of-home childcare or other public areas until 14 days after onset of symptoms (fever, cough, shortness of breath).
- Not have friends or relatives visit until 14 days after onset of symptoms.
- Cover mouth with a facial tissue when coughing or sneezing.
- Wear a surgical mask when in the same room as uninfected persons.
- Stay in a separate room wherever possible.
- Not share eating utensils, clothes, bed linens, or towels with well household members.
- Have meals brought to them in their own room while still symptomatic.

1. 2) Instruct household members to:

- Use disposable gloves for any direct contact with respiratory secretions, blood, or other body fluids. Gloves are not intended to replace proper hand hygiene. Gloves should never be washed or reused.
- Wash hands with soap and water after gloved and ungloved contact with the ill person's respiratory (lung or nasal) secretions, blood and other body fluids (urine, wound drainage, etc). Alcohol-based hand hygiene products can be used after removing gloves and when hands are not visibly soiled.
- Wear a surgical mask when in the same room as the patient if the patient is unable to wear a surgical mask.
- Avoid sharing eating utensils with the patient. Wash dishes and utensils with detergent and hot water after use by the ill person.
- Wash ill person's linens in cool to warm water and any commercial laundry product.
- Seek healthcare evaluation if they develop fever or respiratory symptoms.

### **Patient education**

Patients who are planning overseas travel to Asia should consult the CDC website for travel advisories and precautions ([http://www.cdc.gov/travel/other/avian\\_influenza\\_se\\_asia\\_2005.htm](http://www.cdc.gov/travel/other/avian_influenza_se_asia_2005.htm)). We strongly urge you not to prescribe Osteltamivir to patients for their personal stockpile, regardless of whether they are planning travel. Additional information will be available on our website at: [www.sccphd.org](http://www.sccphd.org) .

### **Resources/More information**

For an updated listing of countries with avian influenza in poultry and wild birds, visit the World Health Organization of Animal Health (OIE) webpage on Avian Influenza (type H5) in Animals: [http://www.oie.int/downld/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm)

For an updated listing of countries with cases of human infections, visit:

[http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

For more detailed information on infection control recommendations, visit:

<http://www.cdc.gov/flu/avian/professional/infect-control.htm>



**Tool 10 – Santa Clara County Physician Alert Case Definition Avian Influenza**  
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Suspect Avian Influenza A (H5N1) SPECIMEN SUBMITTAL FORM  
PLEASE USE ONE FORM PER PATIENT

Each specimen should be labeled with date of collection, specimen type, and patient name. Because culture is not recommended in these cases, please note clearly on the form that this is a suspect case of avian influenza A (H5N1).

Specimens should be sent cold using an overnight courier

Send specimens to: Santa Clara County Public Health Laboratory  
 2220 Moorpark Avenue, 2<sup>nd</sup> Floor  
 San Jose, CA 95128

Do not send specimens on a Fridays, weekends or holidays before contacting the Health Officer on call.

Specimens that are not sent to the laboratory immediately after collection must be refrigerated until they are delivered the next business day.

**\*\* IMPORTANT: THE INFORMATION BELOW MUST BE COMPLETED AND SUBMITTED WITH SPECIMENS**

Patient's last name, first name		Patient's mailing address (including Zip code)	Route to: <input type="checkbox"/> SERO <input type="checkbox"/> ISOL <input type="checkbox"/> FA <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
Age or DOB:	Sex (circle): M F	Onset Date:	
Disease suspected or test requested: Influenza and Other Respiratory Virus		This section for Virus Laboratory use only. Date received by VRDL and State Accession Number	
1 <sup>st</sup>	Specimen type and/or specimen source	Date Collected	1 <sup>st</sup>
2 <sup>nd</sup>	Specimen type and/or specimen source	Date Collected	2 <sup>nd</sup>
3 <sup>rd</sup>	Specimen type and/or specimen source	Date Collected	3 <sup>rd</sup>
Please provide clinical findings and/or pertinent laboratory data			

**Questions? Call Patricia Dadone or Lorna Way at (408) 885-4272**  
 Public Health Laboratory  
**County of Santa Clara**

Submitting Physician \_\_\_\_\_ Phone Number (\_\_\_\_\_) \_\_\_\_\_  
 Submitting Facility \_\_\_\_\_ Phone Number (\_\_\_\_\_) \_\_\_\_\_  
 Fax: (\_\_\_\_\_) \_\_\_\_\_

**CALIFORNIA CASE REPORT FORM FOR SUSPECT AVIAN (H5N1) INFLUENZA**

OTE: If case also meets epidemiologic and clinical criteria for severe acute respiratory syndrome (SARS), please fill out the California Case Report Form for SARS-like Illness" and the grey-colored sections 2, 3, 5, 6, 7 and 9 of this form. For fatal cases ease attach copy of autopsy report, if available. Please refer to the WHO website at [http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/) for an updated list of affected countries.

FAX completed form to 510-307-8599

Date of Initial report to LHD: \_\_\_\_/\_\_\_\_/\_\_\_\_

State ID# \_\_\_\_\_

**Section 1. Patient Information**

Patient's Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ MI: \_\_\_\_\_  
 Current Street Address: \_\_\_\_\_  
 Current Residence City: \_\_\_\_\_ State: \_\_\_\_\_ County: \_\_\_\_\_  
 Home telephone: \_\_\_\_\_ Work telephone: \_\_\_\_\_  
 Age at onset: \_\_\_\_\_  Years  Months Date of Birth \_\_\_\_/\_\_\_\_/\_\_\_\_ Gender:  Male  Female  
 Ethnicity:  Hispanic/Latino  Non-Hispanic/Non-Latino  
 Race:  Native American/Alaskan Native  Asian  Pacific Islander  African American/Black  White  Other  Unk  
 Nationality/Citizenship: \_\_\_\_\_ Residency:  U.S. Resident  Non-U.S. Resident  
 Specify patient occupation: \_\_\_\_\_  
 Is individual a health care worker (a person who has close contact to patients, patient care areas (e.g., patient's room) or patient care items (e.g., linens or clinical specimens)?  Yes  No  Unk  
 If yes, specify:  
 Health care worker type:  Physician  Nurse/ PA  Laboratorian  Other \_\_\_\_\_  
 Place of employment:  Hospital  Long Term Care Facility  Laboratory  Ambulatory Care  Other \_\_\_\_\_  
 Does patient have DIRECT patient care responsibilities?  Yes  No  Unk

**Section 2. Risk Factors for Influenza Complications**

Cardiac disease \_\_\_\_\_  
 Chronic lung disease (e.g, asthma) \_\_\_\_\_  
 Chronic metabolic/renal disease (e.g., diabetes) \_\_\_\_\_  
 Immunosuppression (e.g., HIV, transplant, malignancy, long-term steroids) \_\_\_\_\_  
 Child < 18 yrs old on chronic aspirin therapy \_\_\_\_\_  Hemoglobinopathy (e.g., SCD) \_\_\_\_\_  
 Pregnancy in 2<sup>nd</sup> or 3<sup>rd</sup> trimester \_\_\_\_\_  Nursing home resident / institutionalized \_\_\_\_\_  
 Other underlying illness (specify): \_\_\_\_\_

**Section 3. Signs and Symptoms**

Date of initial symptom onset: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Fever (subjective or objective):  Yes  No  Unk If yes, date of fever onset: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 If yes, temperature >38° C (>100.4° F):  Yes  No  Unk  
 Influenza-associated symptoms:  Chills  Rigors  Myalgias  Headache  Sore throat  Runny nose/congestion  
 Conjunctivitis  Cough  Wheezing  Shortness of breath  Bloody respiratory secretions  Ear pain/otitis  
 Nausea/vomiting  Diarrhea  Abdominal pain  Apnea  Lethargy  Altered mental status  Other: \_\_\_\_\_  
 Complications:  Encephalitis  Myocarditis  Seizures  Sepsis  Multi-organ failure  
 Reyes Syndrome  2<sup>o</sup> bacterial pneumonia  Other \_\_\_\_\_  
 Antiviral medications:  Yes  No  Unk  
 If yes, specify:  Amantadine  Rimantadine  Oseltamivir  Zanamavir Date started \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Received flu vaccine for 2003-2004 season:  Yes  No  Unk If yes, specify date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Comments: \_\_\_\_\_

Section 4.	Clinical Status								
Date of first clinical evaluation for this illness: ___/___/___ Laboratory results (if available): Platelet count _____ Liver function: AST: _____ ALT: _____ White blood cell count: _____ differential: _____ segs _____ lymphs _____ monos _____ baso _____ atyp lymph Was a chest X-ray or chest CAT scan performed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes, date: ___/___/___ If yes, was there evidence of pneumonia or respiratory distress syndrome? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk Comments/interpretation: _____									
Was the patient hospitalized for > 24 hours during this course? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes: Name of hospital: _____ Medical Record Number: _____ City: _____ State: _____ Date of admission: ___/___/___ Date of discharge: ___/___/___									
Was the patient transferred to or from another facility? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes, facility name: _____ If yes, date of transfer: ___/___/___ (If more, please list on back of page).									
Was the patient ever in the ICU? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk									
Was the patient ever placed on mechanical ventilation? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk									
Did the patient die as a result of this illness? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes, date of death: ___/___/___ If yes, was an autopsy performed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes, please forward autopsy report.									
Section 5.	Avian (H5N1) Influenza Epidemiological Risk Factors								
In the 10 days prior to symptom onset: Did the patient travel to an area with documented avian (H5N1) influenza in birds and/or humans? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes, 1. Complete section 6.									
2. Did the patient have history of contact with domestic poultry? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk If yes, <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">a. Did the patient come within one meter of any poultry?</td> <td style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</td> </tr> <tr> <td style="padding-left: 20px;">b. Was the poultry sick or dying?</td> <td style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</td> </tr> <tr> <td style="padding-left: 20px;">c. Did the patient touch any live poultry?</td> <td style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</td> </tr> <tr> <td style="padding-left: 20px;">d. Did the patient touch any recently butchered poultry?</td> <td style="text-align: right;"><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk</td> </tr> </table>		a. Did the patient come within one meter of any poultry?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	b. Was the poultry sick or dying?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	c. Did the patient touch any live poultry?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk	d. Did the patient touch any recently butchered poultry?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk
a. Did the patient come within one meter of any poultry?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk								
b. Was the poultry sick or dying?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk								
c. Did the patient touch any live poultry?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk								
d. Did the patient touch any recently butchered poultry?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk								
Did the patient come in close contact or stay in the same household with a known or suspected human case of H5N1? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk (If YES to exposure to ill traveler, please fill out source case information in SECTION 9)									
Did the patient come in close contact or stay in the same household with anyone with pneumonia or severe flu-like illness? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unk									
Section 6.	Travel History								
Complete if travel to foreign or domestic area with documented or suspected recent local transmission of avian (H5N1) influenza cases in birds or humans. List each portion or leg of the trip in the space below. Copy or use additional pages if necessary.									
<u>Leg 1</u> Departure Date: ___/___/___ Departure City/Country: _____ Arrival Date: ___/___/___ Arrival City/Country: _____									
<u>Leg 2</u> Departure Date: ___/___/___ Departure City/Country: _____ Arrival Date: ___/___/___ Arrival City/Country: _____									
<u>Leg 3</u> Departure Date: ___/___/___ Departure City/Country: _____ Arrival Date: ___/___/___ Arrival City/Country: _____									
Please complete <u>Annex 1</u> to provide more detailed travel history									



CDC ID#: \_\_\_\_\_

CDHS ID#: \_\_\_\_\_

**Annex 1. Supplemental Travel History**

Complete if provided a more detailed travel history to foreign or domestic areas with documented or suspected recent local transmission of avian (H5N1) influenza cases in birds or humans. Copy or use additional pages if necessary.

Leg 1

Transport type:  Airline  Train  Auto  Cruise  Bus  Tour group  Other \_\_\_\_\_

Transport company: \_\_\_\_\_ Transport number: \_\_\_\_\_

Residence at arrival city (e.g., hotel, relative's home): \_\_\_\_\_ Purpose/activities: \_\_\_\_\_

Leg 2

Transport type:  Airline  Train  Auto  Cruise  Bus  Tour group  Other \_\_\_\_\_

Transport company: \_\_\_\_\_ Transport number: \_\_\_\_\_

Residence at arrival city (e.g., hotel, relative's home): \_\_\_\_\_ Purpose/activities: \_\_\_\_\_

Leg 3

Transport type:  Airline  Train  Auto  Cruise  Bus  Tour group  Other \_\_\_\_\_

Transport company: \_\_\_\_\_ Transport number: \_\_\_\_\_

Residence at arrival city (e.g., hotel, relative's home): \_\_\_\_\_ Purpose/activities: \_\_\_\_\_

**Annex 2. Source Case Information**

This section should be filled out if the patient reported *any* history of contact with a known or suspected human case of influenza A (H5N1) within 10 days of symptom onset. Please be sure to submit a case report form for the source case as well. If the source case is not a resident of your county or not a California resident, please collect as much information as possible about the source case and contact a member of the state avian (H5N1) influenza team so they may contact appropriate individuals for follow-up.

If the patient lists more than two possible source cases, please use additional pages or space below.

**Source Case 1:**

Name: \_\_\_\_\_ Age: \_\_\_\_\_  Years  Months Gender:  Male  Female

Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_

Telephone (h): (\_\_\_\_) \_\_\_\_\_ Telephone (w): (\_\_\_\_) \_\_\_\_\_

Nature of contact:  Household  Co-worker  Health care  Other

Please describe the nature of the contact:

Date of patient's last exposure to source case: \_\_\_\_/\_\_\_\_/\_\_\_\_

Has a case report form been completed on source case?  Yes  No  Unk  In Progress

If yes, date of completion: \_\_\_\_/\_\_\_\_/\_\_\_\_

If known, source case's CDC ID#: \_\_\_\_\_ CDHS#: \_\_\_\_\_ Local ID #: \_\_\_\_\_

Did the ill contact recently travel to a country with documented H5 infected poultry or human cases? ?  Yes  No  Unk

If yes, list countries: \_\_\_\_\_

**Source Case 2:**

Name: \_\_\_\_\_ Age: \_\_\_\_\_  Years  Months Gender:  Male  Female

Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_

Telephone (h): (\_\_\_\_) \_\_\_\_\_ Telephone (w): (\_\_\_\_) \_\_\_\_\_

Nature of contact:  Household  Co-worker  Health care  Other

Please describe the nature of the contact:

Date of patient's last exposure to source case: \_\_\_\_/\_\_\_\_/\_\_\_\_

Has a case report form been completed on source case?  Yes  No  Unk  In Progress

If yes, date of completion: \_\_\_\_/\_\_\_\_/\_\_\_\_

If known, source case's CDC ID#: \_\_\_\_\_ CDHS#: \_\_\_\_\_ Local ID #: \_\_\_\_\_

Did the ill contact recently travel to a country with documented H5 infected poultry or human cases? ?  Yes  No  Unk

If yes, list countries: \_\_\_\_\_

Annex 3. (To be filled out by DHS personnel)	
<b>VRDL Results (if available):</b>	
Date of specimen: ____/____/____	
Specimen type: <input type="checkbox"/> nasopharyngeal swab <input type="checkbox"/> nasopharyngeal wash <input type="checkbox"/> oropharyngeal swab <input type="checkbox"/> endotracheal asp <input type="checkbox"/> sputum <input type="checkbox"/> bronchoalveolar lavage <input type="checkbox"/> pleural fluid	
Results: _____	
<b>CDC Results (if available):</b>	
Date of specimen: ____/____/____	
Specimen type: <input type="checkbox"/> nasopharyngeal swab <input type="checkbox"/> nasopharyngeal wash <input type="checkbox"/> oropharyngeal swab <input type="checkbox"/> endotracheal asp <input type="checkbox"/> sputum <input type="checkbox"/> bronchoalveolar lavage <input type="checkbox"/> pleural fluid	
Results: _____	
<b>CDC Contact (if further laboratory testing required):</b>	
Last Name: _____ First Name: _____ Phone: (____) _____	
E-mail: _____ Date reported to CDC: ____/____/____ CDC ID#: _____	
<b>Case Classification:</b>	
<input type="checkbox"/> Case under investigation <input type="checkbox"/> Epidemiologic/clinical investigation completed, lab results pending <input type="checkbox"/> Suspect H5 case (investigation completed, no lab results available) <input type="checkbox"/> Influenza A (human subtype H1, H3) <input type="checkbox"/> Ruled out case <input type="checkbox"/> Other etiology (list) _____ <input type="checkbox"/> H5 case (laboratory confirmed)	

DRAFT

County of Santa Clara

**Public Health Department  
Public Health Laboratory**



2220 Moorpark Avenue, 2<sup>nd</sup> Floor  
San Jose, California 95128  
(408) 885-4272 FAX 885-4275

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## COMMUNITY UPDATE

**DATE:** December 29, 2005  
**TO:** Directors, Managers, Microbiology Supervisors for Clinical Laboratories  
**FROM:** Patricia A. Dadone, Director  
Santa Clara County Public Health Laboratory

**SUBJECT: AVIAN INFLUENZA TESTING**

Since December 2003, widespread outbreaks of avian influenza A (*H5N1*) in domestic poultry and wild birds have been reported in Asia, Russia and Europe. To date, 135 cases and 69 deaths in humans have been confirmed by the World Health Organization. With the exception of limited household transmission in a family cluster in Thailand, all cases likely acquired infection from direct contact with ill or dead birds. To date, the H5N1 virus infecting birds is not well adapted to human-to-human transmission.

In the United States, there have been no documented avian influenza A (H5N1) infections in wild or domestic birds, nor have there been any cases in persons returning from travel to affected areas. However, the potential for Santa Clara County residents to acquire infection exists because of:

- 1) Frequent travel by county residents to areas of Asia currently experiencing widespread outbreaks in poultry.
- 2) The possibility that the avian influenza A (H5N1) virus might mutate and acquire characteristics that would facilitate human-to-human transmission.

The following will provide you with information and instructions in assisting health care providers if and when you are contacted with questions regarding evaluation and management of a suspect case of avian influenza A (H5N1). Included is information on criteria for influenza A (H5N1) diagnostic testing, who to contact regarding clinical consultation, procedures for safe handling and collection of clinical specimens (as well as

submittal and case history forms), where to send specimens, and resources for additional information that may be useful to clinicians.

Criteria for testing

**At this time, we strongly urge that suspect cases that meet the criteria listed below be tested within the public health laboratory system. For those cases, the Santa Clara County Public Health Laboratories will expedite testing.**

**Individuals who meet the following criteria are at risk for influenza A (H5N1):**

- 1) Hospitalized patients with:
  - a) Radiographically confirmed pneumonia, acute respiratory distress syndrome (ARDS), or other severe respiratory illness for which an alternate diagnosis has not been established, **AND**
  - b) History of travel within 10 days of symptom onset to a country with documented H5N1 avian influenza in poultry and/or humans or

Testing for avian influenza will be considered on a case by case basis after consultation with the health officer on call for the following:

- 2) Hospitalized or ambulatory patients with:
  - a) Documented temperature of >38 C (>100.4 F), **AND**
  - b) One or more of the following: cough, sore throat, shortness of breath, **AND**
  - c) History of contact with poultry (e.g. visited a poultry farm, a household raising poultry, or a bird market) or a known or suspected human case of influenza A (H5N1) in an H5N1-affected country within 10 days of symptom onset.

**Cases of possible human infection with influenza A (H5N1) must be reported immediately to the Santa Clara County Public Health Department.**

Reporting / Consultation

Suspect influenza A (H5N1) cases must be reported immediately to the Local Health Department. During normal business hours, call the Santa Clara Co. Disease Prevention and Control Program at 408-885-4214; after hours and weekends call County Communications at 408-299-2501 and ask to speak with the Health Officer on call.



### Safety

**DO NOT** attempt to culture respiratory specimens from suspect avian influenza A (H5N1) cases. Attempts to isolate virus from these cases must only be conducted in a Biosafety Level 3 (BSL 3) enhanced laboratory.

All clinical specimens from suspect avian influenza A (H5N1) patients should be handled wearing gloves, face and eye protection (shields, goggles, etc), and a laboratory coat.

All specimen manipulation and packaging must be conducted in a biological safety cabinet.

### Testing at your facility

Commercial antigen detection testing for influenza may be conducted under BSL-2 containment conditions in a class II biological safety cabinet. Laboratories in outpatient settings and hospitals can use these tests to detect influenza viruses within 30 minutes. It is important to understand that these tests are of limited sensitivity and specificity and the user must beware of these test limitations. If a suspect case of avian influenza A (H5N1) tests negative by rapid influenza test, the specimen should still be forwarded for testing by more sensitive PCR methods by the Santa Clara Co. Public Health Laboratory.

### Laboratory specimen collection

- 1) If a patient with suspect avian influenza A (H5N1) meets the criteria above, specimens should be collected and sent immediately to the Santa Clara Co. Public Health Laboratory. Collect a nasal and throat swab (use Dacron or rayon swabs only) and place each swab into a separate vial of viral transport media (VTM). Break off sticks leaving swabs in the VTM.
- 2) Label each specimen with the following information: PATIENT'S NAME, DATE COLLECTED, AND TYPE OF SPECIMEN. **Because culture is not recommended on these cases, please note "Suspect case of avian influenza A (H5N1)" on the form and specimens.**
- 3) Complete the attached Specimen Submittal Form for Suspect Avian Influenza A (H5N1) for each patient with the following information: patient's name, age, date of illness onset, type of specimen(s), date collected and clinical symptoms (if the attached form is not available, your standard laboratory submittal form is acceptable.)
- 4) Send specimen(s) and submittal form (to the Santa Clara Co. County Public Health Laboratory at 2220 Moorpark Ave., 2<sup>nd</sup> Fl., San Jose, CA 95128. Telephone: 408-885-4272.

- 5) Consider collection of an acute phase blood specimen (5-10 ml whole clotted blood) in a red top or serum separator tube, for serologic testing for influenza and a panel of other respiratory viruses. A convalescent specimen should be drawn in 14 – 21 days.

For more information regarding specimen collection or submittal, please contact the Santa Clara County Public Health Laboratory at 408-885-4272 or after hours and weekends 408-885-4200.

Resources/More information

For an updated listing of countries with avian influenza in poultry and wild birds, visit the World Health Organization of Animal Health (OIE) WebPage on Avian Influenza (type H5) in Animals [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm)

For an updated listing of countries with cases of human infections, visit:  
[http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

For more detailed information on infection control recommendations, visit:  
<http://www.cdc.gov/flu/avian/professional/infect-control.htm>

Additional websites:

<http://www.hhs.gov/pandemicflu/plan/> HHS pandemic plan

<http://www.hhs.gov/pandemicflu/plan/pdf/S01.pdf> surveillance section

<http://www.hhs.gov/pandemicflu/plan/pdf/S02.pdf> lab diagnostics section

<http://www.whitehouse.gov/homeland/pandemic-influenza.html> entire plan



**Tool 13 - Santa Clara County Pandemic Influenza Case Report Form**

**PANDEMIC INFLUENZA CASE REPORT FORM**  
Santa Clara County Public Health Department  
**FAX completed form to 408-885-3709**

Date of Initial report to SCCPHD: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Section 1. Patient Information**

**Patient's Last Name:** \_\_\_\_\_ **First Name:** \_\_\_\_\_ **MI:** \_\_\_\_\_  
**Current Street Address:** \_\_\_\_\_  
**Current Residence City:** \_\_\_\_\_ **State:** \_\_\_\_\_  
**Home telephone:** \_\_\_\_\_ **Work telephone:** \_\_\_\_\_  
**Age at onset:** \_\_\_\_\_  Years  Months **Date of Birth** \_\_\_\_/\_\_\_\_/\_\_\_\_ **Gender:**  Male  Female  
**In what setting did patient spend the majority of their time during the 1-5 days prior to illness onset (check one):**  
**Work:**  Healthcare  School/Daycare  Corrections  Other type worksite: \_\_\_\_\_  
**School/Daycare:**  Daycare  Preschool  Elementary School  Middle School  Other \_\_\_\_\_  
**Home:**   
**Other:**  Specify: \_\_\_\_\_

**Section 2. Risk Factors for Influenza Complications (check all that apply)**

Cardiac disease  Chronic lung disease (e.g. asthma)  
 Chronic metabolic/renal disease (e.g., diabetes)  Immunosuppression (e.g., HIV, transplant, malignancy, long-term steroids)  
 Child < 18 yrs old on chronic aspirin therapy  Hemoglobinopathy (e.g., SCD)  
 Pregnancy in 2<sup>nd</sup> or 3<sup>rd</sup> trimester  Nursing home resident / institutionalized  
 Other underlying illness (specify): \_\_\_\_\_

**Section 3. Signs and Symptoms**

**Date of initial symptom onset:** \_\_\_\_/\_\_\_\_/\_\_\_\_  
**Fever (subjective or objective):**  Yes  No  Unk *If yes, date of fever onset:* \_\_\_\_/\_\_\_\_/\_\_\_\_  
*If yes, temperature >38° C (>100.4° F):*  Yes  No  Unk  
**Influenza-associated symptoms:**  Chills  Rigors  Myalgias  Headache  Sore throat  Runny nose/congestion  
 Conjunctivitis  Cough  Wheezing  Shortness of breath  Bloody respiratory secretions  Ear pain/otitis  
 Nausea/vomiting  Diarrhea  Abdominal pain  Apnea  Lethargy  Altered mental status  Other:  
\_\_\_\_\_  
**Complications:**  Encephalitis  Myocarditis  Seizures  Sepsis  Multi-organ failure  
 Reyes Syndrome  2° bacterial pneumonia  Other \_\_\_\_\_  
**Laboratory confirmed influenza?**  Not done  Yes  No  Unk  
**Anti-viral medications:**  Yes  No  Unk  
*If yes, specify:*  Amantadine  Rimantadine  Oseltamivir  Zanamavir **Date started:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**Section 4. Clinical Outcome**

**Hospitalized?**  Yes  No  Unk *If yes, specify date:* \_\_\_\_/\_\_\_\_/\_\_\_\_ **Admitted to an ICU?**  Yes  No  Unk  
**Mechanical ventilation?**  Yes  No  Unk **Died?**  Yes  No  Unk *If yes, specify date:* \_\_\_\_/\_\_\_\_/\_\_\_\_

**Section 5. Submitted by**

**Last Name:** \_\_\_\_\_ **First Name:** \_\_\_\_\_ **Phone:** (\_\_\_\_) \_\_\_\_\_  
**Affiliation:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Tool 14 – Pandemic Influenza Batch Case Report Form**

**PANDEMIC INFLUENZA BATCH CASE REPORT FORM**

Santa Clara County Public Health Department  
**FAX completed form to 408-885-3709**

**Date of report to SCCPHD:**      /      /

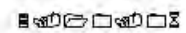
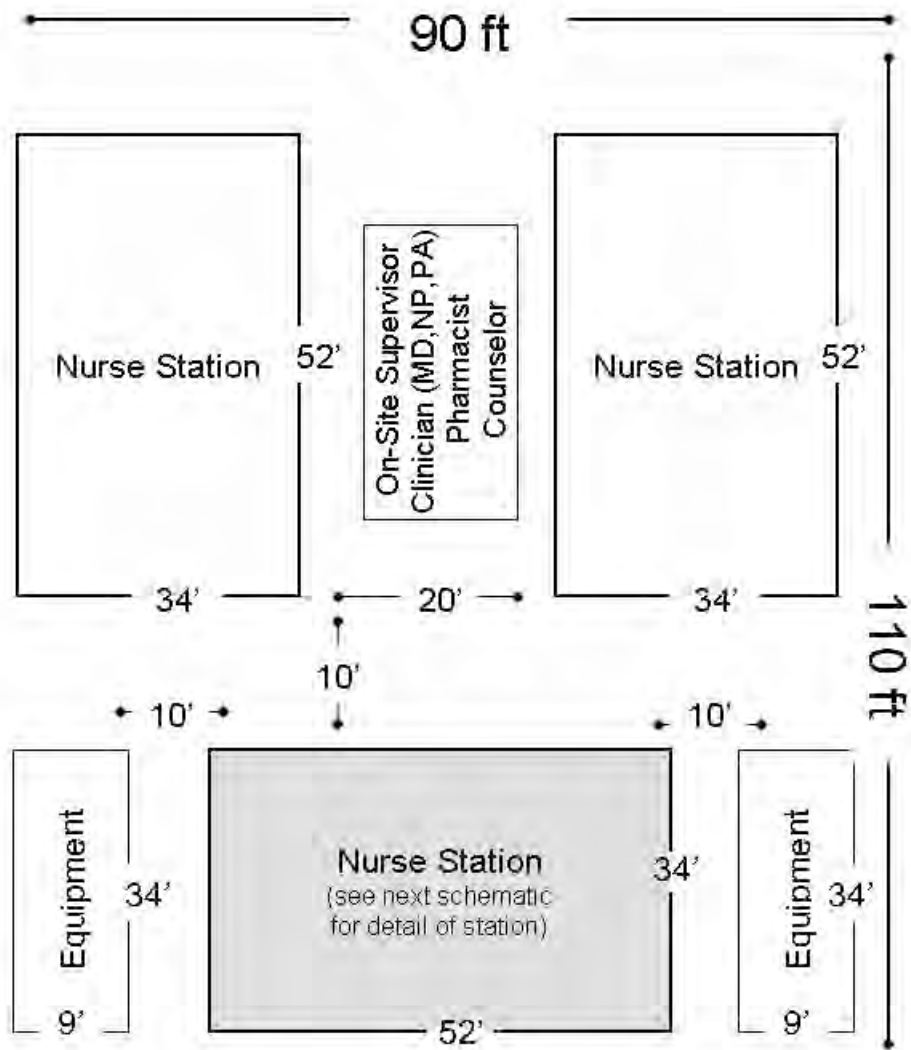
Section 1.	Submitted by																												
<b>Health Care Facility:</b> _____ <input type="checkbox"/> Inpatient <input type="checkbox"/> Outpatient <b>Address:</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Telephone:</b> _____ <b>Name of person filling out report:</b> _____																													
Section 2.	Signs and Symptoms																												
<b>Week beginning (Reporting week is Mon – Sun):</b> ____/____/____ <b>INPATIENT FACILITY: please complete the table below describing the patients admitted with influenza during the reporting week:</b>																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Age Group</th> <th style="width: 25%;">Number hospitalized</th> <th style="width: 25%;">Required ICU care</th> <th style="width: 35%;">Died</th> </tr> </thead> <tbody> <tr><td>0-10</td><td></td><td></td><td></td></tr> <tr><td>11-20</td><td></td><td></td><td></td></tr> <tr><td>21-40</td><td></td><td></td><td></td></tr> <tr><td>41-60</td><td></td><td></td><td></td></tr> <tr><td>Over 60</td><td></td><td></td><td></td></tr> <tr><td><b>TOTAL</b></td><td></td><td></td><td></td></tr> </tbody> </table>		Age Group	Number hospitalized	Required ICU care	Died	0-10				11-20				21-40				41-60				Over 60				<b>TOTAL</b>			
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Over 60																													
<b>TOTAL</b>																													

## Just-in-Time Orientation for Influenza Care Centers General Instructions

1. Influenza Care Center *On-Site Supervisor* validates identity of assigned person(s) and maintains list of current assignees at the ICC.
2. ICC *licensed nurse* provides personal protective equipment and demonstrates its proper use. Assignees may be re-directed to another assignment if unable or unwilling to properly use personal protective equipment.
3. Assignees are shown by the *On-Site Supervisor/Designee* to their work stations; based upon assignment, assignees may have a tour of the ICC facility.
4. *On-Site Supervisor or currently assigned staff person at each work station* will provide more specific information regarding the particular assignment (e.g., a *licensed nurse* will make a “change-of-shift” report to a subsequent *licensed nurse*).
5. Each assignee will be given information on chain of command and a method to inform through the chain of command.
6. Each assignee will be instructed on mandatory reports up the chain of command (e.g., personal exhaustion/inability to continue the assignment, possible death of a patient, emergency situations, etc).
7. Each assignee will have opportunities for meals, work breaks, communications with family, etc., to promote maximum well-being of assignees.
8. The *physician/practitioner* will determine if an assignee may be ill and in need of further attention or a need to be re-assigned/released from duty.

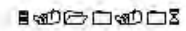
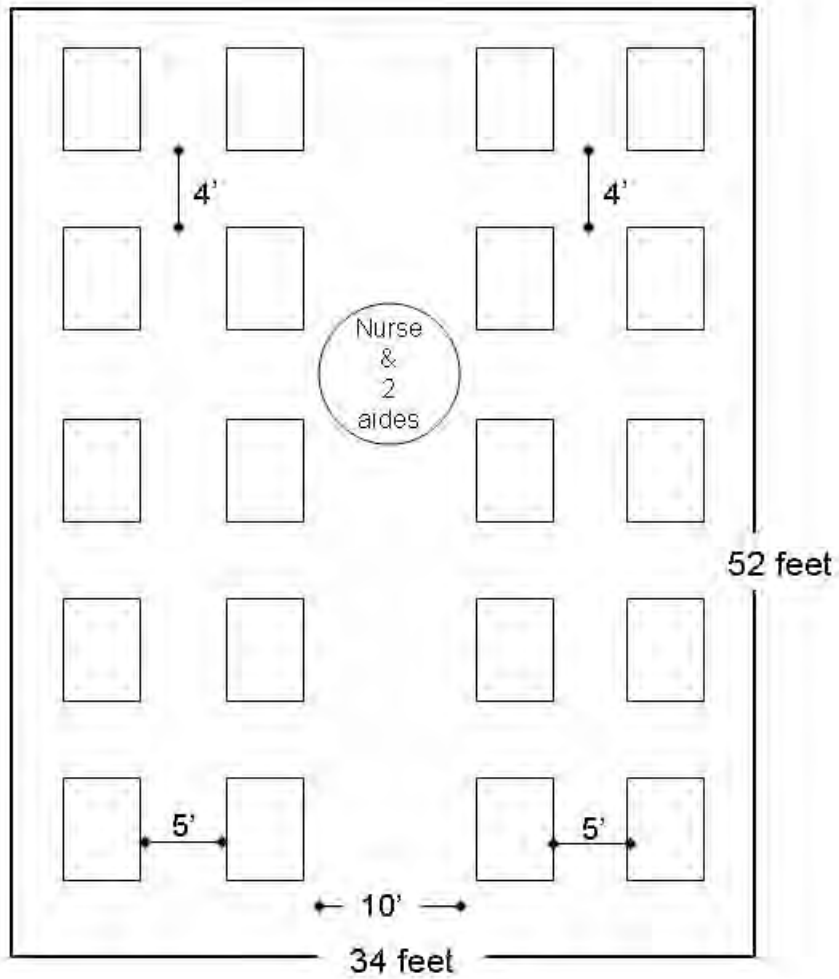
Tool 16 - Schematic of Physical Set-up at Influenza Care Center

**Influenza Care Center  
3-Nurse Station  
Schematic of Physical Set-up**



Tool 17 - Schematic of Nurse Station at Influenza Care Center

**Influenza Care Center  
Nurse Station for 20 patients  
Schematic of Physical Set-up**



## **Tool 18 - Duty Statements for Influenza Care Staff**

### **Duty Statements for Influenza Care Center Staff**

#### *Direct Care Providers*

Physician, Physician Assistant and Nurse Practitioner: Provide clinical care based on clinical guidelines issued by Public Health Department and level of resources; keep medical record admit/discharge patients; sign death certificates.

Nurses: Provide bedside care; executes clinician orders; supervise nurse aides; records important patient data; informs On-Site Supervisor regarding need for supplies and other resources; communicates with patients' families/contacts.

Nurse Aides/Orderlies: Follows nurses' orders; assists with moving and transporting patients; other duties as assigned.

Pharmacist/Pharmacy Technician: Fills medication orders; advises clinicians regarding medications; informs On-Site Supervisor of needed supplies.

Mental health Counselor: May be a psychiatric social worker, medical social worker, or other professional. Primary duty is to provide mental/emotional support to patients and staff.

Ancillary Health Professionals (Respiratory Therapists, Physical Therapists, Occupational Therapists, et.al.): Executes clinician orders; supports nursing staff.

#### *Administrative Support Staff*

On-Site Supervisor: Overall administrative responsibility, including directing all non-clinical functions and other personnel. Communicates through SEMS/Incident Command with Operations Section at Department Emergency Operations Center to provide information and request additional personnel and resources as indicated.

Clerical Support: Various duties including reception, admission/discharge census-tracking; general record-keeping, including safeguarding patient records and other data.

Security Guards: At perimeter, ensures access only to those authorized to enter facility; assigned to the interior, protects personal property of patients/staff and assists as needed.

Translation/Bilingual Staff: Interprets information between staff and clients in the language of the clients.

Housekeeping/Janitorial Staff: Maintains environmental sanitation; assist with laundry, cleansing of surfaces and supplies, and inform On-Site Supervisor when supplies are needed.

Food Service Workers: Prepare, cook, deliver and/or assist with meal preparation and feeding. Handles kitchen clean-up chores.



## **Tool 19 – Checklist of Supplies and Influenza and other-Related Medicines for Influenza Care Centers**

### **Supplies at Influenza Care Centers**

For each 60 patients at an Influenza Care Center, necessary durable supplies include:

- 60 beds/cots with sufficient linens to change bedding at least twice per 8-hour shift
- 4 gurneys (adjustable for height)
- 4 wheelchairs (pediatric or adult, as indicated)
- 10 commode chairs
- 20 folding tables
- 30 chairs
- 24 folding screens (to provide privacy around at least 6 beds/cots)
- 20 poles to hang intravenous fluids
- 5 front-wheeled walkers
- bookcases or storage area for medical and other records
- wastebaskets
- cooking and serving equipment, unless food is delivered from an outside source

Non-durable supplies include:

- personal protective equipment (masks, gloves, gowns, face shields, etc)
- medications (see Module V) and fluids
- treatment supplies (intravenous kits, catheter kits, sharps and sharp disposal equipment, etc)
- office supplies (pens, paper, medical charts)
- waterless and standard hand-washing supplies
- bathroom supplies (soap, shampoo, toilet tissue, shaving equipment, etc)
- cleaning supplies (bleach, antiseptics, etc)
- foodstuffs, unless food is delivered from an outside source

Tool 20 – Disease Control Measures: definitions, examples, and considerations

Disease Control Measures: definitions, examples and considerations			
Level	Measure	Definition	Examples and Considerations
Individual	Isolation	The separation of infected persons from other persons for the period of communicability in such conditions as will prevent the transmission of the agent. <b>Strict isolation</b> is confinement of the isolated individual to a room with a separate bed, with direct and room contact only with persons taking care of the individual. (see CCR, 17, §2516). <b>Modified isolation</b> is any other type of isolation, as prescribed and ordered by the local health officer and dependent on the disease involved (see CCR, 17, §2517).	Ideally, persons who meet the criteria for a case of novel influenza and who do not require hospitalization should be isolated in their homes. During the earliest stages of a pandemic, when it is feasible, the home being considered should be evaluated by an appropriate authority to ensure that minimum standards (infrastructure, accommodations, resources for patient care and support) are met.
	Quarantine	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 manner as to prevent effective contact with those not so exposed (see CCR, 17, §2520)	May be voluntary or mandatory; same considerations as above.
	Quarantine of close contacts	The quarantine of individuals exposed to patients with novel or pandemic influenza; the contact remains separated from others for a specific period of time (up to 10 days after potential exposure) during which s/he is assessed on a regular basis for signs and symptoms of disease.	May include family members, work or school mates, health care workers. May be appropriate in situations in which the risk of exposure and subsequent development of disease is high and the risk of delayed recognition of symptoms is moderate. Persons in quarantine must be monitored for development of symptoms.
	Workplace quarantine	Exposed employees are permitted to work but must observe activity restrictions while off duty. Monitoring for signs and symptoms before reporting to work and use of PPE while at work are required.	Applicable in persons for whom activity restrictions are indicated but who provide essential services; reduces risk of community spread from high-risk contacts while minimizing adverse impact of activity restrictions on provision of essential services.

Disease Control Measures: definitions, examples and considerations			
Level	Measure	Definition	Examples and Considerations
Community	Focused measures to increase social distance	Interventions applied to specific groups, designed to reduce interactions and thereby transmission risk within the group. When focused, the intervention is applied to groups or persons in specific sites or buildings, most but not necessarily all of whom are at risk of exposure to influenza.	<p>Examples include: quarantine of groups of exposed persons in a defined setting (e.g. at a school or workplace, or on an airplane or cruise ship), cancellation of public events, closure of office buildings, schools, and or shopping malls; closure of public transportation such as subways or bus lines.</p> <p>Applicable in groups or settings where transmission is believed to have occurred, where the linkages between cases is unclear at the time of evaluation, and where restrictions placed only on persons known to be exposed is considered insufficient to prevent further transmission. Applied broadly, may reduce the requirement for urgent evaluation of large numbers of persons without explicit activity restriction (quarantine).</p>
	Community-based measures to increase social distance	Interventions applied to an entire community or region, designed to reduce personal interactions and thereby transmission risk. Includes measures applied to whole neighborhoods, towns, cities, or counties.	<p>The primary example is “Snow days” (Days on which offices, schools, transportation systems are closed or cancelled, as if there were a major snowstorm).</p> <p>May be applied to all members of a community in which extensive transmission is occurring, a significant number of cases lack an epidemiologic link at the time of evaluation, and restrictions placed on persons know to be exposed are considered sufficient to prevent further spread.</p>

<b>Disease Control Measures: definitions, examples and considerations</b>			
<b>Level</b>	<b>Measure</b>	<b>Definition</b>	<b>Examples and Considerations</b>
<b>Community</b>	Widespread community Quarantine, including Cordon Sanitaire	Legally enforceable action that restricts movement into or out of the area of quarantine of a large group of people or community; designed to reduce the likelihood of transmission of influenza among persons in and to persons outside the affected area. Consists of closing community borders or the erection of a real or virtual barrier around a geographic area with prohibition of travel into or out of the area.	Applied to all members of a group in which extensive transmission is occurring, a significant number of cases lack identifiable epidemiologic links at the time of evaluation, and restrictions placed on persons known to have been exposed are considered insufficient to prevent further spread.  Widespread quarantine such as Cordon Sanitaire is unlikely to be necessary and would be very difficult to implement

## HOME ISOLATION CHECKLIST

A person with influenza may continue to be infectious (able to spread illness) for at least 5, and up to 14 days after the first day they had symptoms. Please follow this checklist to help limit the spread of illness in your home.

### 1. Limit physical contact between those with influenza and those without.

- ✓ The ill household member(s) with influenza needs to be physically separate from non-ill persons living in the home. Pick one room in the house where the ill person(s) can stay for their entire infectious period. If more than one person in the home has influenza, all ill persons can share the same room. The ideal room for ill person(s):
  - has windows that open to increase air circulation.
  - gets natural light (UV light can kill influenza virus)
  - has a door that closes.
  - has a bathroom attached or nearby so the person isn't sharing bathroom space with those who aren't ill.
- ✓ One person in the home should be the designated caregiver; all others should have limited to no contact. The designated caregiver can bring meals, beverages and medicines to the room of the ill person.
- ✓ Ill persons should not leave their room or the home during the period when they are most likely to be infectious (5 days after onset of symptoms, and potentially longer). When travel outside the home is necessary (e.g. for medical care), the ill person should cover the mouth and nose when coughing and sneezing and should wear a mask.
- ✓ If contact between infected and not infected cannot be avoided (e.g. during transport in a car), place a surgical or procedure mask over the nose and mouth of the ill person (or the well persons if the ill person cannot tolerate a mask), and open the windows to increase air circulation.

### 2. Contain the respiratory secretions of the ill. All persons with signs and symptoms of a respiratory infection, regardless of presumed cause, should:

- ✓ Cover their nose and mouth when coughing or sneezing
- ✓ Use tissues to contain respiratory secretions
- ✓ Dispose of tissues in the nearest waste receptacle after use
- ✓ Perform hand hygiene after contact with respiratory secretions and contaminated objects/materials

### 3. Protect the well with personal protective equipment (PPE) and hand hygiene. The primary caregiver, or anyone who cannot avoid contact with the ill household member, can protect themselves by:

- ✓ Wear a surgical or procedure mask when in close contact (< 3 feet) with 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.
- ✓ 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)

- ✓ Clean hands after contact with a person who may be ill, after removing mask or gloves, or after touching items or surfaces that may be soiled.

#### **4. Keep environment clean**

- ✓ Tissues used by the ill person and other waste should be placed in a bag and disposed of with other household waste.
- ✓ 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. Clean hands after handling soiled laundry.
- ✓ 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.
- ✓ Environmental surfaces in the home can be cleaned using normal procedures. An EPA-registered hospital disinfectant can be used according to manufacture’s instructions, but is not necessary. There is no evidence to support the widespread disinfection of the environment or the air.

#### **5. Prevent illness among household members**

- ✓ Persons who have not been exposed to pandemic influenza and who are not essential for patient care or support should not enter the home while persons are actively ill with pandemic influenza.
- ✓ Household members should monitor closely for the development of influenza symptoms and contact a telephone hotline or medical care provider if symptoms occur.

**Plan “A” for access to influenza anti-viral medications during an influenza pandemic (when NO VACCINE is available)<sup>90</sup>**

Priority	Target group(s)	Strategy	Estimated numbers
1	Patients experiencing a potentially life-threatening influenza-related illness; this includes patients hospitalized with complications of influenza as well as all patients with influenza-related pneumonia	Treatment <sup>91</sup>	
2	Infected healthcare workers and EMS providers whose duties include direct, face-to-face patient contact	Treatment	
3	Infected adults and children aged ≥1 year who are at highest risk for serious complications from influenza – severely immunocompromised persons <sup>92</sup> and pregnant women	Treatment	
4	Infected pandemic health responders (public health, vaccinators, vaccine and anti-viral manufacturers), public safety (police, fire, staff of correctional facilities), and government decision makers	Treatment	
5	Other infected adults and children aged ≥1 year who are at high risk for serious complications <sup>93</sup> from influenza	Treatment	
6	Healthcare workers with direct, face-to-face patient contact, who are themselves at high risk for serious complications <sup>iii</sup> from influenza	Prophylaxis	

<sup>90</sup> This plan is based on guidance from the U.S. Department of Health and Human Services and on currently available data regarding the benefits of oseltamivir for treatment and prophylaxis of influenza A. As new information becomes available regarding the efficacy of oseltamivir for treatment and prophylaxis of the pandemic influenza strain, this plan must be revised accordingly.

<sup>91</sup> Treatment is defined as a single course of oseltamivir or zanamivir (total of 10 doses). The optimal dose and duration of treatment with oseltamivir for avian influenza and the pandemic influenza strain are not currently known. Higher doses or a longer duration of treatment may be necessary.

<sup>92</sup> The severely immunocompromised include

- persons with hematopoietic stem cell transplants and solid organ transplant;
- those with severe immunosuppression due to cancer therapy or hematological malignancy;
- persons receiving immunosuppressive therapy for other illnesses (e.g., rheumatoid arthritis);
- persons with HIV infection and a CD4 count <200; and
- persons on dialysis.

<sup>93</sup> Persons at high risk for serious complications from seasonal influenza include the following:

- persons aged ≥ 65 years of age
- children aged 6-23 months
- pregnant women
- persons with chronic diseases such as diabetes mellitus, asthma, heart disease, kidney diseases, severe anemia, cancer, and weakened immune systems due to immunosuppressive medications or HIV infection
- children aged 6 months to 18 years who are on long-term aspirin therapy
- persons with any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration

Because it is currently unknown which groups will be at highest risk for complications from the pandemic influenza strain, these “high risk” priority groups may be changed as clinical and epidemiological information about the pandemic strain becomes available.

7	All persons living or working in institutions caring for people at high risk of serious complications <sup>iii</sup> from influenza, <b>in the event of an institutional outbreak</b> . Do not wait for laboratory confirmation to start prophylaxis, if influenza is strongly suspected.  Patients at high risk for serious complications <sup>iii</sup> from influenza A infection who are experiencing household exposure to influenza (includes exposure in day care)	Post-exposure prophylaxis <sup>94</sup>	
8	<ul style="list-style-type: none"> <li>• Healthcare workers in emergency departments, intensive care units, dialysis centers</li> <li>• Pre-hospital providers with direct, face-to-face patient contact (EMTs, paramedics)</li> <li>• Persons supporting isolation and quarantine efforts of the Public Health Department, whose role involves direct exposure to patients infected with influenza</li> </ul>	Prophylaxis <sup>95</sup>	
9	<ul style="list-style-type: none"> <li>• Infected pandemic societal responders (individuals working in critical societal infrastructure, as described in vaccine prioritization plan)</li> <li>• Infected healthcare workers <b>without</b> direct, face-to-face patient contact</li> </ul>	Treatment	
10	Other healthcare workers with direct, face-to-face patient contact	Prophylaxis	
11	High risk outpatients <sup>iii</sup>	Prophylaxis	

<sup>94</sup> For seasonal influenza, post-exposure prophylaxis would consist of a single daily dose of oseltamivir for at least 7 days; longer courses of post-exposure prophylaxis may be indicated with pandemic influenza, depending on the anticipated period of viral shedding.

<sup>95</sup> Prophylaxis would require at least 4 courses (40 doses) though more may be needed if community outbreaks last for a longer period.



**Plan “B” for access to influenza anti-viral medications during an influenza pandemic (when STRAIN-SPECIFIC VACCINE has become available)<sup>i</sup>**

Priority	Target group(s)	Strategy	Estimated numbers
1	Patients experiencing a potentially life-threatening influenza-related illness; this includes patients hospitalized with complications of influenza as well as all patients with influenza-related pneumonia	Treatment <sup>ii</sup>	
2	Infected healthcare workers and EMS providers whose duties include direct, face-to-face patient contact	Treatment	
3	Infected adults and children aged $\geq 1$ year who are at highest risk for serious complications from influenza – severely immunocompromised persons <sup>iii</sup> and pregnant women	Treatment	
4	Infected pandemic health responders (public health, vaccinators, vaccine and anti-viral manufacturers), public safety (police, fire, staff of correctional facilities), and government decision makers	Treatment	
5	Other infected adults and children aged $\geq 1$ year who are at high risk for serious complications <sup>iv</sup> from influenza	Treatment	
6	Unvaccinated <sup>v</sup> healthcare workers with direct, face-to-face patient contact, who are themselves at high risk for serious complications <sup>iii</sup> from influenza	Prophylaxis	
7	All persons living or working in institutions caring for people at high risk of serious complications <sup>iii</sup> from influenza, <b>in the event of an institutional outbreak</b> . Do not wait for laboratory confirmation to start prophylaxis, if influenza is strongly suspected. Vaccinated staff should receive prophylaxis for 2 weeks following vaccine; residents should continue prophylaxis for the duration of the outbreak, whether or not they are vaccinated.  Patients at high risk for serious complications <sup>iii</sup> from influenza A infection who are experiencing household exposure to influenza (includes exposure in day care)	Post-exposure prophylaxis <sup>vi</sup>	
8	<ul style="list-style-type: none"> <li>• Unvaccinated<sup>iv</sup> healthcare workers in emergency departments, intensive care units, dialysis centers</li> <li>• Unvaccinated<sup>iv</sup> pre-hospital providers with direct, face-to-face patient contact (EMTs, paramedics)</li> <li>• Unvaccinated<sup>iv</sup> persons supporting isolation and quarantine efforts of the Public Health Department, whose role involves direct exposure to patients infected with influenza</li> </ul>	Prophylaxis <sup>vii</sup>	
9	<ul style="list-style-type: none"> <li>• Infected pandemic societal responders (individuals working in critical societal infrastructure, as described in vaccine prioritization plan)</li> <li>• Infected healthcare workers <b>without</b> direct, face-to-face patient contact</li> </ul>	Treatment	
10	Other unvaccinated <sup>iv</sup> healthcare workers with direct, face-to-face patient contact	Prophylaxis	
11	<ul style="list-style-type: none"> <li>• Unvaccinated<sup>iv</sup> high risk outpatients<sup>iii</sup></li> <li>• Persons with immunosuppressive conditions who are not expected to mount an adequate antibody response to influenza vaccine</li> </ul>	Prophylaxis	

**Footnotes – Plan B for Use of Anti-virals – Vaccine Available**

<sup>i</sup> This plan is based on guidance from the U.S. Department of Health and Human Services and on currently available data regarding the benefits of Oseltamivir for treatment and prophylaxis of influenza A. As new information becomes available regarding the efficacy of Oseltamivir for treatment and prophylaxis of the pandemic influenza strain, this plan must be revised accordingly.

<sup>ii</sup> Treatment is defined as a single course of Oseltamivir or Zanamivir (total of 10 doses). The optimal dose and duration of treatment with Oseltamivir for avian influenza and the pandemic influenza strain are not currently known. Higher doses or a longer duration of treatment may be necessary.

<sup>iii</sup> The severely immunocompromised include

- persons with hematopoietic stem cell transplants and solid organ transplant;
- those with severe immunosuppression due to cancer therapy or hematological malignancy;
- persons receiving immunosuppressive therapy for other illnesses (e.g., rheumatoid arthritis);
- persons with HIV infection and a CD4 count <200; and
- persons on dialysis.

<sup>iv</sup> Persons at high risk for serious complications from seasonal influenza include the following:

- persons aged  $\geq 65$  years of age
- children aged 6-23 months
- pregnant women
- persons with chronic diseases such as diabetes mellitus, asthma, heart disease, kidney diseases, severe anemia, cancer, and weakened immune systems due to immunosuppressive medications or HIV infection
- children aged 6 months to 18 years who are on long-term aspirin therapy
- persons with any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration

**Because it is currently unknown which groups will be at highest risk for complications from the pandemic influenza strain, these “high risk” priority groups may be changed as clinical and epidemiological information about the pandemic strain becomes available.**

<sup>v</sup> Chemoprophylaxis should continue for 2 weeks following vaccination in adults. In children < 9 years, chemoprophylaxis should continue for 6 weeks after the first dose, or 2 weeks after the second dose, depending on whether the child is scheduled to receive one or two doses of vaccine. The recommended duration of chemoprophylaxis following vaccination for individuals  $\geq 9$  years of age may need to be adjusted if it is determined that 2 doses of strain-specific influenza vaccine are required to impart immunity to this population.

<sup>vi</sup> For seasonal influenza, post-exposure prophylaxis would consist of a single daily dose of oseltamivir for at least 7 days; longer courses of post-exposure prophylaxis may be indicated with pandemic influenza, depending on the anticipated period of viral shedding.

<sup>vii</sup> Prophylaxis would require at least 4 courses (40 doses) though more may be needed if community outbreaks last for a longer period.

**Tool 25 - Plan for Vaccination with Strain-specific Influenza Vaccine During an Influenza Pandemic**

Tiered vaccine priority groups<sup>viii</sup> based on (1) high risk for serious complications or death from pandemic influenza infection<sup>ix</sup>, (2) high risk for acquiring infection and spreading it to others<sup>x</sup>, and (3) critical role in pandemic response, provision of medical care to the ill, manufacturing of influenza vaccine, or maintenance of critical societal infrastructure.

Tier	Priority group	Estimated number of individuals in this group in Santa Clara County
A	<ul style="list-style-type: none"> <li>▪ Health-care workers with direct, face-to-face patient contact, including prehospital workers (EMTs and paramedics)</li> <li>▪ Public health workers and others involved directly in vaccination clinics, PODs, or home support services to persons ill with pandemic influenza</li> <li>▪ Workers providing other support services essential for direct patient care, such as dietary workers, housekeeping, admissions, blood collection center staff, laboratory workers, etc.</li> </ul> <p>Total</p>	
B	<ul style="list-style-type: none"> <li>▪ Persons aged ≥ 65 years of age with one or more influenza high-risk conditions<sup>xi</sup>, not including essential hypertension</li> <li>▪ Persons aged 6-23 months of age with one or more influenza high-risk conditions</li> <li>▪ Persons aged 24 months to 64 years of age with 2 or more influenza high-risk conditions, not including essential hypertension</li> <li>▪ Persons 6 months or older with history of hospitalization for pneumonia or influenza or other influenza high-risk condition in the past year</li> <li>▪ Residents of long-term-care facilities</li> </ul> <p>Total</p>	
C	<ul style="list-style-type: none"> <li>▪ Pregnant women</li> <li>▪ Household contacts of severely immunocompromised persons who would not be vaccinated due to likely poor response to vaccine<sup>xii</sup></li> <li>▪ Household contacts and out-of-home caregivers of children aged &lt;6 months</li> </ul> <p>Total</p>	
D	<ul style="list-style-type: none"> <li>▪ Persons aged ≥ 65 years without influenza high-risk conditions</li> <li>▪ Children aged 6-23 months without influenza high-risk conditions</li> <li>▪ Persons 24 months to 64 years with 1 influenza high-risk condition</li> </ul> <p>Total</p>	

**Tool 25 - Plan for Vaccination with Strain-specific Influenza Vaccine During an Influenza Pandemic**

Tier	Priority group	Estimated number of individuals in this group in Santa Clara County
E	<ul style="list-style-type: none"> <li>▪ Public health emergency response workers critical to pandemic response – this would include all DEOC-assigned staff as well as staff at the city and county Offices of Emergency Services (OES)</li> <li>▪ Key government leaders to include the Board of Supervisors, the County Executive, city managers, mayors, and city councils</li> <li>▪ Fire service personnel</li> <li>▪ Emergency medical services provider personnel</li> <li>▪ Law enforcement personnel</li> <li>▪ 911 dispatchers</li> </ul> <p>Total</p>	
F	<ul style="list-style-type: none"> <li>▪ Healthcare workers without direct face-to-face patient contact</li> <li>▪ Pharmacies</li> <li>▪ Non-emergency public health professionals</li> </ul> <p>Total</p>	
G	<ul style="list-style-type: none"> <li>▪ Death care services (mortuary, embalming and crematory services; funeral directors and their support staff)</li> <li>▪ Critical personnel in media organizations (print, wire, radio, TV)</li> <li>▪ Food suppliers (non-restaurant), including employees of large and small food, beverage and grocery stores</li> <li>▪ Transportation workers transporting fuel, water, food and medical supplies, as well as public transportation agencies</li> <li>▪ Utility workers essential for maintenance of water, sanitation, power and electricity, and telecommunications services</li> </ul> <p>Total</p>	
H	<ul style="list-style-type: none"> <li>▪ Public safety – Department of Corrections (includes staff and inmates of all correctional facilities)</li> <li>▪ Emergency relief organizations</li> <li>▪ Medical and diagnostic laboratories</li> <li>▪ Medical and Pharmaceutical manufacturing</li> </ul> <p>Total</p>	

Tier	Priority group	Estimated number of individuals in this group in Santa Clara County
I	<ul style="list-style-type: none"> <li>▪ Non-emergency social assistance organizations</li> <li>▪ Judicial and legal services</li> <li>▪ Other public administration/ government officials not included in Tier 2 B-1</li> </ul> Total	
J	<ul style="list-style-type: none"> <li>▪ Educational institutions</li> <li>▪ Religious organizations</li> </ul> Total	
K	<ul style="list-style-type: none"> <li>▪ Gasoline stations</li> <li>▪ Postal services</li> <li>▪ Waste management and remediation services</li> <li>▪ Agriculture industry</li> <li>▪ Couriers and messengers</li> <li>▪ Food manufacturing</li> <li>▪ Warehousing and storage</li> <li>▪ Financial and insurance services</li> </ul> Total	
L	<ul style="list-style-type: none"> <li>▪ Persons aged 24 months to 64 years who were not included in the above categories</li> </ul> Total	

<sup>viii</sup> Adapted from MMWR August 5, 2005 / 54(30);749-750, "Tiered Use of Inactivated Influenza Vaccine in the Event of a Vaccine Shortage" and HHS Pandemic Influenza Plan, Appendix D: NVAC/ ACIP Recommendations for Prioritization of Pandemic Influenza Vaccine and NVAC Recommendations on Pandemic Anti-viral Drug Use.

<sup>ix</sup> As new clinical and epidemiological knowledge becomes available about those at high risk for serious complications from illness with the pandemic influenza strain, this prioritization plan must be updated to take this information into account.

<sup>x</sup> Children who attend day care, kindergarten, or elementary school are widely recognized as a source of increased transmission of influenza in the community. Healthy children in these categories, however, have not been included in this tiered priority ranking on the assumption that social distancing measures including wide-scale closing of child care centers and schools will protect these children and prevent them from becoming a source of amplification of the pandemic. If schools and child care centers are to reopen, the children attending these institutions will be vaccinated prior to returning to school or child care.

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<sup>xi</sup> Throughout this plan, the term “influenza high-risk conditions” refers to any of the following:

- pregnancy
- chronic diseases such as diabetes mellitus, asthma, heart disease, kidney diseases, severe anemia, cancer, and weakened immune systems due to immunosuppressive medications or HIV infection
- children aged 6 months to 18 years who are on long-term aspirin therapy
- any condition (e.g., cognitive dysfunction, spinal cord injuries, seizure disorders, or other neuromuscular disorders) that can compromise respiratory function or the handling of respiratory secretions or that can increase the risk for aspiration

<sup>xii</sup> Such persons include

- persons who have recently undergone bone marrow transplantation
- AIDS patients with CD4 counts <50
- children with severe combined immune deficiency syndrome (SCIDS)
- others whose immune systems are compromised to a similar degree.

Tool 27- Santa Clara County Physician Alert on Tamiflu dated November 4, 2005

## County of Santa Clara

### Public Health Department

3003 Moorpark Avenue  
San Jose, California 95128  
Martin Fenstersheib, MD, MPH  
Health Officer

## PHYSICIAN ALERT — TAMIFLU<sup>®</sup>

**DATE:** November 4, 2005  
**TO:** All Santa Clara County Physicians  
**FROM:** Martin Fenstersheib, MD, MPH Health Officer  
**RE:** Guidelines for Healthcare Providers Regarding Personal Stockpiling of Oseltamivir Phosphate (Tamiflu<sup>®</sup>)

Outbreaks of H5N1 avian influenza (“bird flu”) have been ongoing in poultry in a number of countries in Southeast Asia and Europe. In addition, a limited number of sporadic human cases and deaths from avian influenza continue to be reported from Southeast Asia.

No sustained or ongoing transmission (spread) of H5N1 avian influenza among humans has occurred in Southeast Asia.

To date there has been no H5N1 avian influenza in poultry or humans in the US.

- **The Santa Clara County Public Health Department strongly discourages healthcare providers from prescribing and the public from requesting Tamiflu (influenza anti-viral medication) for private stockpiling purposes** in response to the public’s concerns for the possibility of an influenza pandemic related to the current avian influenza situation in Southeast Asia.
- There are limited supplies of Tamiflu in the US. Hoarding of this drug now because of concerns about a future pandemic may mean that Tamiflu becomes unavailable for those who need it most during the current regular flu season.
- The indiscriminate and inappropriate use of Tamiflu may promote the development and spread of resistance to this important drug among influenza viruses.
- The highest current priority for use of Tamiflu is for treatment of people during the upcoming regular flu season who are at highest risk from serious complications from influenza infection (e.g. persons older than 65 years, young children, and persons with certain chronic diseases).
- The next highest priority for use of Tamiflu and other influenza anti-viral medications is for prophylaxis in persons at high risk of serious complications from influenza infection who are exposed to influenza (e.g. household in which someone has been diagnosed with influenza or hospital or nursing home with an outbreak of influenza) during the regular flu season.
- Steps people can take to keep themselves and others healthy this flu season include: getting their flu shots and the pneumococcal vaccine (when appropriate), covering their coughs, staying home from work or school when sick with cough illness and washing hands after coughing or touching respiratory secretions.

This fax contains 1 page.

**Please copy and distribute to ALL physicians at your location.**

## Tool 28 – Pocket Website Reference Tool

<http://www.cdc.gov/flu/professionals/treatment/0506anti-viralguide.htm>

CDC guidelines for the use of influenza anti-viral medications for the 2005-2006 influenza season

<http://www.cdc.gov/flu/professionals/treatment/>

CDC information about anti-viral medications

<http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm>

CDC Information on infection precautions that should be implemented for all respiratory illnesses (Respiratory Hygiene and Cough Etiquette)

<http://www.cdc.gov/flu/avian/professional/infect-control.htm>

CDC information on infection control recommendations

[http://www.cdc.gov/travel/other/avian\\_influenza\\_se\\_asia\\_2005.htm](http://www.cdc.gov/travel/other/avian_influenza_se_asia_2005.htm)

CDC website for travel advisories and precautions

<http://www.fda.gov>

Food and Drug Administration prescribing information for oseltamivir for pediatric prophylaxis

<http://www.hhs.gov/pandemicflu/plan/>

HHS Pandemic Flu Plan

<http://www.hhs.gov/pandemicflu/plan/pdf/S01.pdf>

HHS Pandemic Flu Plan Surveillance Section

<http://www.hhs.gov/pandemicflu/plan/pdf/S02.pdf>

HHS Pandemic Flu Plan Lab Diagnostics Section

<http://www.hhs.gov/pandemicflu/plan/sup1.html#app3>

CDC Novel Influenza Case Report Form

[http://www.oie.int/downld/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm)

World Health Organization of Animal Health (OIE) WebPage on Avian Influenza (type H5) in Animals

[www.pandemicflu.gov](http://www.pandemicflu.gov)

Federal government provides background information and frequent updates for healthcare professionals

<http://www.pandemicflu.gov/plan/tab3.html>

Federal government provides guidance for families and individuals

[www.redcross.org](http://www.redcross.org)

Information to make your own emergency preparation plan and kit

[www.sccphd.org](http://www.sccphd.org)

Santa Clara County Public Health Department

[www.vaers.hhs.gov](http://www.vaers.hhs.gov)

Vaccine Adverse Effects Reporting System

[www.who.int](http://www.who.int)

World Health Organization provides information about the international progress of the pandemic

[http://www.who.int/csr/disease/avian\\_influenza/en/](http://www.who.int/csr/disease/avian_influenza/en/)

For an updated listing of countries with cases of human infections



**Clinical Criteria**

**Epidemiologic Criteria**

Hospitalized patients with:  
Radiographically confirmed pneumonia,  
acute respiratory distress syndrome  
(ARDS), or other severe respiratory  
illness for which an alternate diagnosis  
has not been established

**OR**

Hospitalized or ambulatory patients  
with:  
Documented temperature of >38 C  
(>100.4 F), AND  
  
One or more of the following: cough,  
sore throat, shortness of breath

The clinician should ask the patient about the following **within 10 days** of symptom onset:

- History of recent **travel** to an affected area<sup>1</sup> **and** at least one of the following:
  - Direct contact with poultry or poultry products<sup>2</sup>, *or*
  - Close contact with a person with suspected or confirmed novel influenza<sup>3</sup>, *or*
  - Close contact with a person who died or was hospitalized due to a severe respiratory illness
- Employment in an **occupation** at particular risk for novel influenza exposure, such as:
  - A health care worker in direct contact with a suspected or confirmed novel influenza case, *or*
  - A worker in a laboratory that contains live novel influenza virus, *or*
  - A worker in a poultry farm, live poultry market, or poultry processing operation with known or suspected avian influenza infection

If no, treat as clinically indicated

**If YES to both clinical AND epidemiologic criteria**

- Initiate Standard and Droplet Precautions<sup>4</sup>
- Treat as clinically indicated<sup>5</sup>
- Notify Santa Clara County Public Health Department about the case<sup>6</sup>
- Initiate general work-up as clinically indicated<sup>7</sup>
- Collect and send specimens for novel influenza virus testing to the Santa Clara County Public Health Laboratory<sup>8</sup>
- Begin empiric anti-viral treatment<sup>9</sup>
- Help identify contacts, including HCWs<sup>10</sup>

If no, treat as clinically indicated

**Novel influenza positive by culture or RT-PCR**

- Continue Standard and Droplet Precautions<sup>4</sup>
- Continue anti-virals<sup>9</sup>
- Do not cohort with seasonal influenza patients
- Treat complications, such as secondary bacterial pneumonia, as indicated<sup>12</sup>
- Provide clinical updates to health department

**Seasonal influenza positive by culture or RT-PCR**

- Continue Standard and Droplet Precautions<sup>4</sup>
- Continue anti-virals for a minimum of 5 days<sup>9</sup>
- Treat complications, such as secondary bacterial pneumonia, as indicated<sup>12</sup>

**All influenza testing negative<sup>11</sup>**

- Continue infection control precautions, as clinically appropriate<sup>4</sup>
- Treat complications, such as secondary bacterial pneumonia, as indicated<sup>12</sup>
- Consider discontinuing anti-virals, if considered

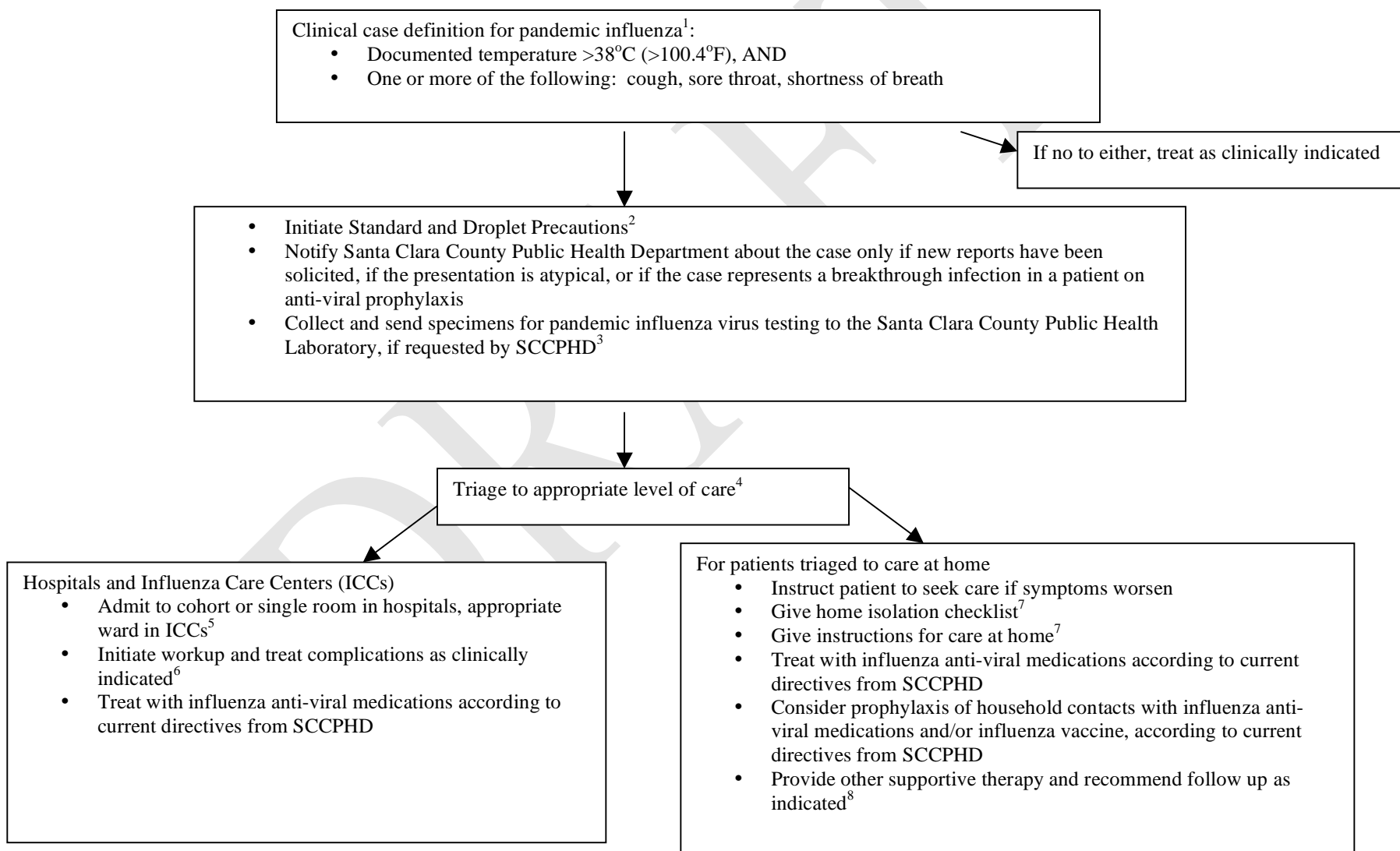
**Footnotes to Figure 1:**

1. Updated information on areas where novel influenza virus transmission is suspected or documented is available on the CDC website at [www.cdc.gov/travel/other/avian\\_flu\\_ah5n1\\_031605.htm](http://www.cdc.gov/travel/other/avian_flu_ah5n1_031605.htm) and on the WHO website at [www.who.int/en/](http://www.who.int/en/).
2. For persons who live in or visit affected areas, direct contact includes touching live poultry (well-appearing, sick or dead) or touching or consuming uncooked poultry products, including blood. For animal or market workers, it includes touching surfaces contaminated with bird feces.
3. Close contact includes direct physical contact, or approach within 3 feet (1 meter) of a person with suspected or confirmed novel influenza.
4. Standard and Droplet Precautions should be used when caring for patients with novel influenza or seasonal influenza (refer to Module III, "Health Care" for a detailed discussion of these precautions). Droplet precautions should be continued for a minimum of 14 days, unless there is full resolution of the illness or another etiology has been identified before that period has elapsed. Information on infection precautions that should be implemented for all respiratory illnesses (i.e., Respiratory Hygiene/Cough Etiquette) is provided at: [www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm)
5. The decision to hospitalize a patient in the alert period should be based on all clinical factors, including the potential for infectivity and the ability to practice adequate infection control. If hospitalization is not clinically warranted, and treatment and infection control is feasible in the home, the patient may be managed as an outpatient. The patient and his or her household should be provided with information on infection control procedures to follow at home (see attachment titled "Home Isolation Checklist"; see also Module IV, "Limiting the Spread of Disease"). The patient and close contacts will be monitored for illness by local public health department staff.
6. Guidance on how to report suspected cases of novel influenza is provided on page 95 of this module.
7. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient's underlying health status, initial diagnostic testing might include:
  - Pulse oximetry
  - Chest radiograph
  - Complete blood count (CBC) with differential
  - Blood cultures
  - Sputum (in adults), tracheal aspirate, pleural effusion aspirate (if pleural effusion is present) Gram stain and culture
  - Antibiotic susceptibility testing (encouraged for all bacterial isolates)
  - Multivalent immunofluorescent antibody testing or PCR of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children
  - In adults with radiographic evidence of pneumonia, Legionella and pneumococcal urinary antigen testing

### Footnotes to Figure 1 (Continued):

- If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children >5 yrs with radiographic pneumonia should be tested.
  - Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected.
8. Instructions for collecting specimens for novel influenza virus testing can be found on pages 86 of this module.
  9. Strategies for the use of anti-viral drugs are discussed on pages 86-88 of this module.
  10. Guidelines for the management of contacts in a healthcare setting are provided in Module III.
  11. Given the unknown sensitivity of tests for novel influenza viruses, interpretation of negative results should be tailored to the individual patient in consultation with the local health department. Novel influenza directed management may need to be continued, depending on the strength of clinical and epidemiologic suspicion. Anti-viral therapy and isolation precautions for novel influenza may be discontinued on the basis of an alternative diagnosis. The following criteria may be considered for this evaluation:
    - Absence of strong epidemiologic link to known cases of novel influenza
    - Alternative diagnosis confirmed using a test with a high positive-predictive value
    - Clinical manifestations explained by the alternative diagnosis
  12. Guidance on the evaluation and treatment of suspected post-influenza community-associated pneumonia is provided in Tools 32 and 33.

**Figure 2: Clinical Algorithm for Case Management – Pandemic Period**



**Footnotes to Figure 2:**

1. This clinical case definition presumes that pandemic influenza will present with a clinical respiratory illness, as does seasonal influenza and novel influenza infections with avian influenza H5N1. Novel or pandemic strains of influenza A may produce clinical syndromes that differ from seasonal or avian influenza. If this happens, this case definition will be updated accordingly.
2. Standard and Droplet Precautions should be used when caring for patients with novel influenza or seasonal influenza (refer to Module III, “Health Care” for a detailed discussion of these precautions). Droplet precautions should be continued for a minimum of 5 days, unless another etiology has been identified before that period has elapsed. Information on infection precautions that should be implemented for all respiratory illnesses (i.e., Respiratory Hygiene/Cough Etiquette) is provided at: [www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm)
3. Routine laboratory confirmation of clinical diagnoses will be unnecessary as pandemic activity becomes widespread in a community. The SCCPHD will work with the CDC and the California Department of Health Services to conduct virologic surveillance to monitor antigenic changes and anti-viral resistance in the pandemic virus strains throughout the Pandemic Period.
4. Healthcare providers should base the decision to hospitalize a patient on a clinical assessment, following existing community standards of care. When hospital beds and healthcare resources become critically short in supply, the SCCPHD will develop and communicate standardized clinical criteria for triage of patients to care in the inpatient acute-care setting vs. Influenza Care Centers vs. the home. See algorithm titled “Clinical Triage Guidelines during Pandemic Critical Resources Stage” for details.
5. See Module III, “Healthcare,” for further information on cohorting.
6. The general work-up should be guided by clinical indications. Depending on the clinical presentation and the patient’s underlying health status, initial diagnostic testing might include:
  - Pulse oximetry
  - Chest radiograph
  - Complete blood count (CBC) with differential
  - Blood cultures
  - Sputum (in adults), tracheal aspirate, pleural effusion aspirate (if pleural effusion is present) Gram stain and culture
  - Antibiotic susceptibility testing (encouraged for all bacterial isolates)
  - Multivalent immunofluorescent antibody testing or PCR of nasopharyngeal aspirates or swabs for common viral respiratory pathogens, such as influenza A and B, adenovirus, parainfluenza viruses, and respiratory syncytial virus, particularly in children

- In adults with radiographic evidence of pneumonia, Legionella and pneumococcal urinary antigen testing
  - If clinicians have access to rapid and reliable testing (e.g., PCR) for *M. pneumoniae* and *C. pneumoniae*, adults and children >5 yrs with radiographic pneumonia should be tested.
  - Comprehensive serum chemistry panel, if metabolic derangement or other end-organ involvement, such as liver or renal failure, is suspected.
7. See “Patient handout for use in the home care setting” (To be developed – **Tool 37**) for the home isolation checklist and sample home care instructions.
  8. Healthcare providers should ensure that patients triaged to home have adequate medication and supplies for the management of comorbid conditions, such as asthma or diabetes.

DRAFT

**SANTA CLARA COUNTY PUBLIC HEALTH LABORATORY  
GUIDELINES FOR COLLECTING AND SHIPPING SPECIMENS FOR  
INFLUENZA A (H5N1) DIAGNOSTICS**

(Adapted from the 2005 US Department of Health & Human Services Pandemic Influenza Plan and the California Department of Health Services Guidelines)

**\*\*\*\*THE SANTA CLARA COUNTY HEALTH DEPARTMENT MUST BE NOTIFIED ABOUT ANY CASE OF SUSPECT AVIAN INFLUENZA A (H5N1).\*\*\*\***

The Santa Clara County Public Health laboratory performs Polymerase Chain Reaction (PCR) and subtype testing. The Santa Clara County Health Department should be contacted to determine where specimens should be submitted.

**To submit specimens to the Santa Clara County Public Health Laboratory:**

1. All specimens should be labeled with the following information: PATIENT'S NAME, DATE TAKEN AND TYPE OF SPECIMEN. Because culture is not recommended in these cases, please note on the form that this is a suspect case of avian influenza a (H5N1).
2. Complete a Santa Clara Co. Public Health Laboratory Specimen Submittal Form for Suspect Avian Influenza A (H5N1) for each vial with the following information: patient's name, age, date of onset of illness, type of specimen, date collected and clinical symptoms.
3. For questions about specimen submittal, contact Patricia Dadone or Lorna Way at (408) 885-4272 during business hours or (408) 885-4200 after hours and weekends.

**SPECIMEN COLLECTION**

**I. RESPIRATORY SPECIMENS**

Eight types of respiratory specimens may be collected for viral and/or bacterial diagnostics:

1) nasopharyngeal wash/aspirates, 2) nasopharyngeal swabs, 3) oropharyngeal swabs, 4) bronchoalveolar lavage, 5) tracheal aspirate, 6) pleural fluid tap, 7) sputum, and 8) autopsy specimens. Nasopharyngeal wash/aspirates are the preferred specimen type for children aged <2 years. Respiratory specimens for detection of most respiratory pathogens, and influenza in particular, are optimally collected within the first 3 days of the onset of illness. **At a minimum, collection of both a nasal and throat swab is recommended for testing for influenza A (H5N1).**

**A. Collecting specimens from the upper respiratory tract**

**1. Nasopharyngeal wash/aspirate**

- Have the patient sit with head tilted slightly backward.
- Instill 1 ml–1.5 ml of nonbacteriostatic saline (pH 7.0) into one nostril. Flush a plastic catheter or tubing with 2 ml–3 ml of saline. Insert the tubing into the nostril parallel to the palate. Aspirate nasopharyngeal secretions. Repeat this procedure for the other nostril.

## Tool 31 – Santa Clara County Public Health Laboratory Guidelines for Collecting and Shipping Specimens for Influenza A (H5N1) Diagnostics

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- Collect the specimens in sterile vials.
- For shipping, use cold packs to keep the sample at 4°C.

### 2. Nasopharyngeal or oropharyngeal swabs

- Use only sterile dacron or rayon swabs with plastic shafts. Do **not** use calcium alginate or cotton swabs or swabs with wooden sticks, as they may contain substances that inactivate some viruses and inhibit PCR testing.
- To obtain a **nasopharyngeal swab**, insert a swab into the nostril parallel to the palate. Leave the swab in place for a few seconds to absorb secretions. Swab both nostrils.
- To obtain an **oropharyngeal swab**, swab the posterior pharynx and tonsillar areas, avoiding the tongue.
- Place each swab immediately into two separate sterile vials containing 2 ml of viral transport media (VTM, either commercially available, herpes buffered tryptose gelatin medium or Hanks' balanced salt solution with gelatin). Break the applicator sticks off near the tip to permit tightening of the cap.
- For shipping, use cold packs to keep the sample at 4°C.

### B. Collecting specimens from the lower respiratory tract

#### 1. Bronchoalveolar lavage, tracheal aspirate, or pleural fluid tap

- During bronchoalveolar lavage or tracheal aspirate, use a double-tube system to maximum shielding from oropharyngeal secretions.
- Place the unspun fluid in sterile vials with external caps and internal O-ring seals. If there is no internal O-ring seal, then seal tightly with the available cap and secure with Parafilm®.
- For shipping, use cold packs to keep the sample at 4°C.

#### 2. Sputum

- Educate the patient about the difference between sputum and oral secretions.
- Have the patient rinse the mouth with water and then expectorate deep cough sputum directly into a sterile screw-cap sputum collection cup or sterile dry container.
- For shipping, use cold packs to keep the sample at 4°C.

### II. BLOOD COMPONENTS (optional)

Collection of sera for serologic testing for influenza as well as other respiratory viruses can be considered, but should not replace collection of respiratory specimens, which are highly recommended for influenza A (H5N1) testing. For serologic testing, paired blood samples are ideal. Collect an acute phase blood specimen (5-10 ml whole clotted blood) on each patient, complete a Santa Clara County Public Health Laboratory Specimen Submittal Form for Suspect Avian Influenza A (H5N1), and schedule patient to return in 14-21 days for a convalescent blood specimen.

#### A. Collecting serum specimens from antibody testing:

- Collect 5 ml–10 ml of whole blood in a serum separator tube (SST). Allow the blood to clot, centrifuge briefly, and collect all resulting sera in vials with external caps and internal O-ring seals. If there is no internal O-ring seal, then seal tightly with the available cap and secure with Parafilm®.
- The minimum amount of serum preferred for each test is 200 microliters, which can easily be obtained from 5 ml of whole blood. A minimum of 1 cc of whole blood is needed for testing of pediatric patients. If possible, collect 1 cc in an EDTA tube and in a clotting tube. If only 1cc can be obtained, use a clotting tube.
- If unfrozen, ship with cold packs to keep the sample at 4°C. If frozen, ship on dry ice.



### **III. AUTOPSY SPECIMENS**

Immunohistochemical (IHC) staining for influenza A (H5) viruses can be performed on autopsy specimens at the Centers for Disease Control and Prevention. Viral antigens may be focal and sparsely distributed in patients with influenza, and are most frequently detected in respiratory epithelium of large airways. Larger airways (particularly primary and segmental bronchi) have the highest yield for detection of influenza viruses by IHC staining. Collection of the appropriate tissues ensures the best chance of detecting the virus by (IHC) stains.

• If influenza is suspected, a minimum total of 8 blocks or fixed-tissue specimens representing samples from each of the following sites should be obtained and submitted for evaluation:

- Central (hilar) lung with segmental bronchi
- Right and left primary bronchi
- Trachea (proximal and distal)
- Representative pulmonary parenchyma from right and left lung

In addition, representative tissues from major organs should be submitted for evaluation. In particular, for patients with suspected myocarditis or encephalitis, specimens should include myocardium (right and left ventricle) and CNS (cerebral cortex, basal ganglia, pons, medulla, and cerebellum). Specimens should be included from any other organ showing significant gross or microscopic pathology.

• Specimens may be submitted as:

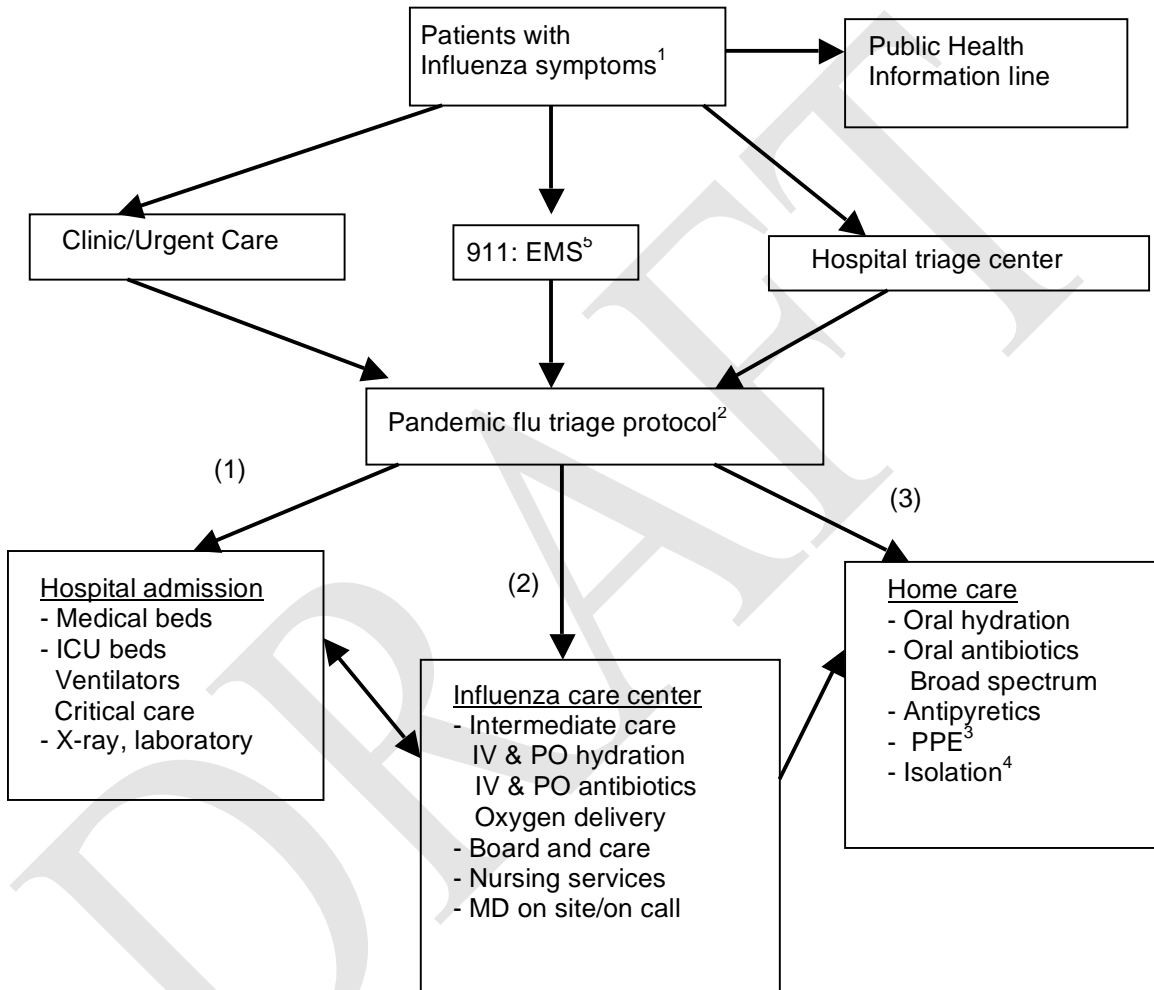
- Fresh-frozen unprocessed tissue in 10% neutral buffered saline, or
- Tissue blocks containing formalin-fixed, paraffin-embedded specimens, or
- Unstained sections cut at 3 microns placed on charged glass slides (10 slides per specimen)

• Specimens should be sent at room temperature (**NOT FROZEN**).

• Fresh-frozen unfixed tissue specimens may be submitted for RT-PCR.

• Include a copy of the autopsy report (preliminary, or final if available), and a cover letter outlining a brief clinical history and the submitter's full name, title, complete mailing address, phone, and fax numbers.

Clinical Triage Guidelines during Pandemic Critical Resources Stage  
 Santa Clara County



Notes:

1. Influenza symptoms: High fever (T > 38) plus sore throat, cough or shortness of breath. Other symptoms: weakness, myalgias, abdominal symptoms, epistaxis, conjunctivitis, nasal congestions, chills, headache.
2. Pandemic flu triage protocol:  
 Available resources: vital signs, examination, pulse oximetry  
 Patient: wears respiratory mask on presentation  
 Personnel: respiratory and universal precautions  
 Evaluation: age, living conditions, functional status, sick contacts

**Tool 32- Clinical Triage Guidelines during Pandemic Critical Resource Stage**  
**Page 2 of 2**

Other comorbid medical conditions

A. Adults and teens >12 years of age: modified pneumonia severity index (PSI) calculation

<u>Characteristic</u>	<u>Points assigned</u>
Age	Number of years
Significant comorbid illness	+10
Physical exam	
Altered mental status	+20
Respirations >30	+20
Systolic BP <90	+20
Pulse >125	+20
Pulse oximetry <90%	+20

- (1) Admission to hospital: Score > 90 or
  - a. Toxic appearance or rapid decompensation (especially important in adolescents and in pregnant women)
  - b. Significant hypoxia – O<sub>2</sub> saturation < 88%
  - c. Patients whose level of disability or medical complexity (e.g., on dialysis, severe quadriplegia, dementia, etc.) would overwhelm the ability of assigned staff to provide basic care for other patients at Influenza Care Centers
- (2) Admission to Influenza Care Center: Score < 90 and
  - a. Needs closer monitoring and nursing care (for example, IV fluids, IV antibiotics, etc.), or
  - b. Unable to care for self or return if symptoms worsen, or
  - c. No hospital beds available
- (3) Discharge to home:
  - a. Score > 90 with poor prognosis and unlikely to benefit from hospitalization, or
  - b. Score < 90 and able to care for self or has caregiver, and able to return if symptoms worsen.

B. Children 12 yrs of age and younger:

Indications for hospital admission include any of the following

- a. Fever and age < 2 months
  - b. Significant tachypnea
  - c. Hypoxia on pulse oximetry
  - d. Chest retractions, cyanosis, intermittent apnea, nasal flaring
  - e. Toxic appearance
3. PPE: respiratory masks, antiseptics, bleach for household surfaces
  4. Isolation: Keep separated from other family members as much as possible, use hand washing, and dispose of tissues in plastic bags. Wear respiratory mask when outside the home. Patient should remain isolated from other persons for at least 7 days after the onset of symptoms. [Refer to the “Home Isolation Checklist” Tool 21]
  5. 911:EMS: The ability of EMS to deliver patients to a non-hospital location will require changes in current state statutes, which may come about in the context of a declaration of emergency.

**Tool 33 – Fluids Suitable for Maintenance of Hydration and Management of Mild Dehydration for Influenza Patients in the Home Setting**

Age group	For <b>maintenance of hydration</b> in patients with influenza who are eating	For <b>rehydration</b> , or for maintenance of hydration in patients with influenza who are NOT eating <sup>xiii</sup>
Infants (under 1 year of age)	<ul style="list-style-type: none"> <li>• breast milk</li> <li>• standard infant formula</li> <li>• store-bought oral rehydration solution, such as Pedialyte, Naturalyte, Infalyte or Rehydralyte<sup>xiv</sup></li> <li>• diluted juices (½ water, ½ juice)<sup>xv</sup></li> </ul> <p>Alternative: <u>Home-made</u> Cereal Based Oral Rehydration Solution (CBORS)<sup>xvi</sup></p> <p>Recipe: 2 cups of water ½ cup of instant baby rice cereal ¼ level teaspoon table salt</p> <p>Mix thoroughly but do not boil, as this will concentrate the solutes. (If a “Boil Water” order is in place, boil the water first for 1 minute, then allow it to cool before adding the cereal and the salt.)</p>	<ul style="list-style-type: none"> <li>• breast milk</li> <li>• standard infant formula</li> <li>• store-bought oral rehydration solution, such as Pedialyte, Naturalyte, Infalyte or Rehydralyte<sup>2</sup></li> </ul> <p>Alternative: <u>Home-made</u> Cereal Based Oral Rehydration Solution (CBORS)<sup>4</sup></p> <p>Recipe: 2 cups of water ½ cup of instant baby rice cereal ¼ level teaspoon table salt</p> <p>Mix thoroughly but do not boil, as this will concentrate the solutes. (If a “Boil Water” order is in place, boil the water first for 1 minute, then allow it to cool before adding the cereal and the salt.)</p>
Toddlers (1-3 years of age)	<ul style="list-style-type: none"> <li>• milk (if not vomiting)</li> <li>• store-bought oral rehydration solution, such as Pedialyte, Naturalyte, Infalyte or Rehydralyte<sup>2</sup></li> <li>• broth, soup<sup>xvii</sup></li> <li>• Jell-O water (1 package per quart of water, or twice as much water as usual)<sup>xviii</sup></li> <li>• popsicles<sup>6</sup></li> <li>• Gatorade<sup>6</sup></li> <li>• <u>Kool-Aid</u><sup>6</sup></li> <li>• juices<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>• store-bought oral rehydration solution, such as Pedialyte, Naturalyte, Infalyte or Rehydralyte<sup>2</sup></li> </ul> <p>Alternative: <u>Home-made</u> Cereal Based Oral Rehydration Solution (CBORS)<sup>4</sup></p> <p>Recipe: 2 cups of water ½ cup of instant baby rice cereal ¼ level teaspoon table salt</p> <p>Mix thoroughly but do not boil, as this will concentrate the solutes. (If a “Boil Water” order is in place, boil the water first for 1 minute, then allow it to cool before adding the cereal and the salt.)</p>

**Tool 33 – Fluids Suitable for Maintenance of Hydration and Management of Mild Dehydration for Influenza Patients in the Home Setting**

Age group	For <b>maintenance of hydration</b> in patients with influenza who are eating	For <b>rehydration</b> , or for maintenance of hydration in patients with influenza who are NOT eating <sup>xix</sup>
Children over 3 years of age, teens and adults	<ul style="list-style-type: none"> <li>• water<sup>6</sup></li> <li>• broth, soup<sup>5</sup></li> <li>• Jell-O water (1 package per quart of water, or twice as much water as usual) <sup>6</sup></li> <li>• popsicles<sup>6</sup></li> <li>• Gatorade<sup>6</sup></li> <li>• <u>Kool-Aid</u><sup>6</sup></li> <li>• juices<sup>3</sup></li> </ul>	<p><u>Home-made oral rehydration solution</u><sup>2</sup></p> <p>Recipe:                      4 cups of clean water                      2 tablespoons of sugar                      ½ teaspoon of salt</p> <p>Mix thoroughly but do not boil, as this will concentrate the solutes. (If a “Boil Water” order is in place, boil the water first for 1 minute, then allow it to cool before adding the sugar and salt.)</p>

<sup>xiii</sup> When rehydrated, patients should gradually return to their usual diet.

<sup>xiv</sup> If a child doesn’t like the flavor of a glucose-based oral rehydration solution, add a bit of Kool-Aid powder to make it more palatable.

<sup>xv</sup> Avoid apple and pear juice, which contain sorbitol, a nonabsorbable carbohydrate that enhances water loss.

<sup>xvi</sup> Use of home-made CBORS should be considered ONLY if store-bought oral rehydration solutions are not available because of the potential for hazardous mixing errors, which may be particularly dangerous for infants. Children are also less likely to take cereal-based solutions than glucose-based solutions. However, when properly mixed and used, CBORS has been found in one study to be as effective as Pedialyte in maintaining hydration and correcting both hypernatremia and hyponatremia (PEDIATRICS, Vol 100 No.5. November 1997, p. e3. <http://pediatrics.aappublications.org/cgi/content/full/100/5/e3>).

<sup>xvii</sup> Not recommended for rehydration of patients with signs of dehydration because of the high sodium content.

<sup>xviii</sup> Not recommended for rehydration of patients with signs of dehydration because of the low sodium content.

<sup>xix</sup> When rehydrated, patients should gradually return to their usual diet.

## Tool 34 – Guidelines for the Management of Community-acquired Pneumonia (CAP) During an Influenza Pandemic

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### Guidelines for the management of community-acquired pneumonia (CAP) during an influenza pandemic

#### **Background**

Estimates based upon the experience of previous influenza pandemics suggest that approximately 10% of patients ill with pandemic influenza may develop a secondary bacterial pneumonia. Early, efficient and effective management of this serious and potentially deadly complication will be crucial to minimize morbidity and mortality.

Primary influenza viral pneumonia is rare in adults but more common in children. Findings include bilateral inspiratory crackles on physical examination with diffuse infiltrates on chest x-ray, consistent with interstitial and/or alveolar disease. Signs of post-influenza bacterial pneumonia often include reappearance of fever after an afebrile period, tachypnea, increasing cough and shortness of breath, signs of respiratory distress (e.g., grunting, nasal flaring, and retractions of the chest wall), pleuritic chest pain, and hypoxia. Patients with bacterial pneumonia are more likely to have lobar consolidation on chest x-ray.

#### **Workup**

Although chest radiographs, pulse oximetry, blood gases, CBC, and blood cultures may be useful adjuncts to the clinical examination when evaluating patients for pneumonia, in a pandemic setting with high patient volume and limited clinical resources clinicians may need to minimize the use of those ancillary studies **not** aimed at identifying the specific bacterial pathogen, and to begin antibiotics empirically for patients presenting with clinical signs consistent with pneumonia.<sup>96</sup>

Because the specific bacterial etiologies of post-influenza community-acquired pneumonia may require different antimicrobial treatments, diagnostic testing should proceed as feasible to distinguish among the possible pathogens. Empirically chosen antibiotics should include coverage for *Streptococcus pneumoniae* and *Staphylococcus aureus*, as well as Group A *Streptococcus*, *Hemophilus influenzae*, and *Moraxella catarrhalis*. In adults and children >5 years of age, coverage for *Mycoplasma pneumoniae* and *Chlamydia pneumoniae* should ideally be included as well, because it may be difficult in a pandemic to distinguish post-influenza bacterial pneumonia from community-acquired pneumonia that is not preceded by influenza. [see Table entitled “Empiric antibiotic regimens for community-acquired pneumonia during an influenza pandemic”]

Diagnostic tests which may be useful to elucidate the specific bacterial etiology of post-influenza community-acquired pneumonia include the following:

#### **Children**

Blood cultures (two sets)

Sputum Gram stain and culture (ONLY for older children and adolescents who are able to produce an adequate specimen)

Tracheal fluid or pleural fluid aspirates for Gram stain and culture, when available

Endotracheal aspirate for Gram stain and culture for patients who are intubated

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<sup>96</sup> Please refer to Figure 2 for further details regarding the evaluation and management of patients presenting with complications of influenza during a pandemic.

## Tool 34 – Guidelines for the Management of Community-acquired Pneumonia (CAP) During an Influenza Pandemic

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### Adults

Blood cultures (two sets)

*Legionella* urine antigen

Sputum Gram stain and culture for hospitalized patients

Pleural fluid aspirate for Gram stain and culture, when available

Endotracheal aspirate for Gram stain and culture for patients who are intubated

### *Triage to appropriate level of care*

During the pandemic, healthcare providers will be tasked with triaging influenza patients with pneumonia to an appropriate location for care. These decisions will need to take into account not only the severity of the clinical presentation and additional factors such as the patient's age, living conditions, functional status, sick contacts and other comorbid medical conditions, but also the availability of clinical resources to care for the patient. During the Critical Resources Stage of the pandemic, clinical triage evaluators will have options to refer each patient for care in the inpatient acute-care hospital setting, at an Influenza Care Center, or at home. Please see the algorithm titled "Clinical Triage Guidelines during Pandemic Critical Resources Stage" for a description of the process for triaging patients with pneumonia to one of these locations for further care.

In the event the pandemic overwhelms resources of hospitals and Influenza Care Centers, the SCCPHD may develop triage guidelines describing criteria for the use of austere medical care for patients too sick to receive standard medical services. This may include allowing natural death without medical intervention.

### References

Healthcare providers may find the following references useful in developing protocols for the management of community-acquired pneumonia during a pandemic:

1. British Thoracic Society Standards of Care Committee. British Thoracic Society guidelines for the management of community acquired pneumonia in childhood. *Thorax*. 2002;57(suppl 1):1-24.
2. McIntosh, K. Community-acquired pneumonia in children. *N Engl J Med*. 2002;346:429-37.
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## Empiric antibiotic regimens for community-acquired pneumonia during an influenza pandemic<sup>97</sup>

Location of care	Adults	Children (birth to 17 years)
Home	<p>Coverage for</p> <ul style="list-style-type: none"> <li>• <i>S. pneumoniae</i></li> <li>• <i>H. influenzae</i></li> <li>• <i>Group A Streptococcus</i></li> <li>• <i>Moraxella catarrhalis</i></li> <li>• <i>Mycoplasma pneumoniae</i></li> <li>• <i>Chlamydia pneumoniae</i></li> </ul> <p>Suggested regimens:                      Previously healthy with no use of antimicrobials within prior 3 months:                      Macrolide (erythromycin, azithromycin, clarithromycin)                      OR doxycycline</p> <p>Comorbidities or use of antimicrobials within prior 3 months (choose from a different class):                      Fluoroquinolone (levofloxacin, moxifloxacin, gatifloxacin, gemifloxacin), telithromycin,                      OR <math>\beta</math>-lactam (amoxicillin, amoxicillin/clavulanic acid)                      PLUS a macrolide (erythromycin, azithromycin, clarithromycin)</p>	<p>Coverage for</p> <ul style="list-style-type: none"> <li>• <i>S. pneumoniae</i></li> <li>• <i>H. influenzae</i></li> <li>• <i>Group A Streptococcus</i></li> <li>• <i>Moraxella catarrhalis</i></li> <li>• <i>Mycoplasma pneumoniae</i></li> <li>• <i>Chlamydia pneumoniae</i></li> </ul> <p>Suggested regimens:                      &lt;5 yrs of age: <math>\beta</math>-lactam (high-dose amoxicillin, high-dose amoxicillin/clavulanic acid)                      OR second-generation cephalosporin (cefuroxime, cefaclor, cefpodoxime)</p> <p><math>\geq</math>5 yrs of age: <math>\beta</math>-lactam (high-dose amoxicillin, high-dose amoxicillin/clavulanic acid)                      OR second-generation cephalosporin (cefuroxime, cefaclor, cefpodoxime)                      OR a macrolide (erythromycin, azithromycin, clarithromycin)</p>

<sup>97</sup> The antibiotic choices here described represent preferred empiric regimens. Providers should be aware that, during a pandemic, supplies of antibiotics may be more limited and some medications may be unavailable. In that situation, other antibiotic agents may be used. Examples of agents appropriate for use in the treatment of pneumonia under these circumstances would include

- trimethoprim/sulfamethoxazole (Bactrim or Septra),
- ciprofloxacin (Cipro) (use with caution in patients < 18 years),
- tetracycline (not recommended in patients < 8 years due to tooth staining and decreased bone growth),
- second-generation cephalosporins (cefuroxime, cefaclor, cefpodoxime) (Note: these agents are first-line treatments in children), and
- chloramphenicol.



## Empiric antibiotic regimens for community-acquired pneumonia during an influenza pandemic (continued)

Location of care	Adults	Children (birth to 17 years)
Hospital ward, Influenza Care Center	<p>[Add coverage for Methicillin-susceptible <i>S. aureus</i> and Methicillin-resistant <i>S. aureus</i>]</p> <p>Option 1: <math>\beta</math>-lactam [ampicillin/sulbactam (Unasyn), piperacillin/tazobactam (Zosyn), ceftriaxone] PLUS a macrolide (erythromycin, azithromycin, clarithromycin) PLUS either vancomycin or linezolid</p> <p>Option 2: Fluoroquinolone (levofloxacin, moxifloxacin, gatifloxacin, gemifloxacin) PLUS either vancomycin or linezolid</p>	<p>[Add coverage for Methicillin-susceptible <i>S. aureus</i> and Methicillin-resistant <i>S. aureus</i>]</p> <p>Suggested regimens: &lt;5 yrs of age: <math>\beta</math>-lactam [ampicillin/sulbactam (Unasyn), piperacillin/tazobactam (Zosyn)] OR 3<sup>rd</sup> generation cephalosporin (cefotaxime, ceftriaxone) PLUS either vancomycin or linezolid</p> <p><math>\geq 5</math> yrs of age: <math>\beta</math>-lactam [ampicillin/sulbactam (Unasyn), piperacillin/tazobactam (Zosyn)] OR 3<sup>rd</sup> generation cephalosporin (cefotaxime, ceftriaxone) PLUS a macrolide (erythromycin, azithromycin, clarithromycin) PLUS either vancomycin or linezolid</p>
ICU	<p>Suggested regimens: Option 1: <math>\beta</math>-lactam [ampicillin/sulbactam (Unasyn), piperacillin/tazobactam (Zosyn), ceftriaxone] PLUS a macrolide (erythromycin, azithromycin, clarithromycin) PLUS either vancomycin or linezolid</p> <p>Option 2: Fluoroquinolone (levofloxacin, moxifloxacin, gatifloxacin, gemifloxacin) PLUS either vancomycin or linezolid</p>	<p>Suggested regimens: &lt;5 yrs of age: <math>\beta</math>-lactam [ampicillin/sulbactam (Unasyn), piperacillin/tazobactam (Zosyn)] OR 3<sup>rd</sup> generation cephalosporin (cefotaxime, ceftriaxone) PLUS either vancomycin or linezolid</p> <p><math>\geq 5</math> yrs of age: <math>\beta</math>-lactam [ampicillin/sulbactam (Unasyn), piperacillin/tazobactam (Zosyn)] OR 3<sup>rd</sup> generation cephalosporin (cefotaxime, ceftriaxone) PLUS a macrolide (erythromycin, azithromycin, clarithromycin) PLUS either vancomycin or linezolid</p>

Anti-viral Agent	1-6 Yrs	7-9 Yrs	10-12 Yrs	13-64 Yrs	≥65 Yrs
<b>Amantadine<sup>a</sup></b>					
Treatment, influenza A	5mg/kg body weight/day up to 150 mg in two divided doses <sup>b</sup>	5mg/kg body weight /day up to 150 mg in two divided doses <sup>b</sup>	100 mg twice daily <sup>c</sup>	100 mg twice daily <sup>c</sup>	≤100 mg/day
Prophylaxis, influenza A	5mg/kg body weight /day up to 150 mg in two divided doses <sup>b</sup>	5mg/kg body weight /day up to 150 mg in two divided doses <sup>b</sup>	100 mg twice daily <sup>c</sup>	100 mg twice daily <sup>c</sup>	≤100 mg/day
<b>Rimantadine<sup>d</sup></b>					
Treatment, <sup>e</sup> influenza A	NA <sup>f</sup>	NA	NA	100 mg twice daily <sup>c,g</sup>	100 mg/day
Prophylaxis, influenza A	5mg/kg body weight /day up to 150 mg in two divided doses <sup>b</sup>	5mg/kg body weight /day up to 150 mg in two divided doses <sup>b</sup>	100 mg twice daily <sup>c</sup>	100 mg twice daily <sup>c</sup>	100 mg/day <sup>h</sup>
<b>Zanamivir<sup>i,j</sup></b>					
Treatment, influenza A and B	NA	10 mg twice daily	10 mg twice daily	10 mg twice daily	10 mg twice daily
<b>Oseltamivir</b>					
Treatment, <sup>k</sup> influenza A and B	dose varies by child's weight <sup>l</sup>	dose varies by child's weight <sup>l</sup>	dose varies by child's weight <sup>l</sup>	75 mg twice daily	75 mg twice daily
Prophylaxis, influenza A and B	Dose same as treatment, but interval is q day.	Dose same as treatment, but interval is q day.	Dose same as treatment, but interval is q day.	75 mg/day	75 mg/day

Information based on data published by the U.S. Food and Drug Administration at [www.fda.gov](http://www.fda.gov), accessed 3/30/2005, with modifications in March 2006 based upon new prescribing information for oseltamivir for pediatric prophylaxis. **Please note that the role of amantadine and rimantadine in prophylaxis or treatment of pandemic influenza is uncertain; these drugs are not currently recommended by CDC for prophylaxis or treatment of circulating strains of influenza A in the 2005-2006 influenza season.**

<sup>a</sup> The drug package insert should be consulted for dosage recommendations for administering amantadine to persons with creatinine clearance ≤50 ml/min/1.73m<sup>2</sup>.

<sup>b</sup> 5 mg/kg body weight of amantadine or rimantadine syrup = 1 tsp/2.2 lbs. The FDA-approved dosage range for amantadine for children under 10 years of age is 4.4-8.8 mg/kg/day given once daily or in two divided doses.

<sup>c</sup> Children aged ≥10 years who weigh <40 kg should be administered amantadine or rimantadine at a dosage of 5 mg/kg body weight /day.

<sup>d</sup> A reduction in dosage to 100 mg/day of rimantadine is recommended for persons who have severe hepatic dysfunction or those with creatinine clearance ≤10 mL/min. Other persons with less severe hepatic or renal dysfunction taking 100 mg/day of rimantadine should be observed closely, and the dosage should be reduced or the drug discontinued, if necessary.

<sup>e</sup> Approved by FDA only for treatment among adults.

<sup>f</sup> Not applicable.

<sup>g</sup> Rimantadine is approved by FDA for treatment among adults. However, certain experts in the management of influenza consider it appropriate for treatment among children. (See American Academy of Pediatrics, 2003 Red Book.)

<sup>h</sup> Older nursing-home residents should be administered only 100 mg/day of rimantadine. A reduction in dosage to 100 mg/day should be considered for all persons aged ≥65 years if they experience possible side effects when taking 200 mg/day.

<sup>i</sup> Zanamivir administered via inhalation using a plastic device included in the medication package. Patients will benefit from instruction and demonstration of the correct use of the device.

<sup>j</sup> Zanamivir is not approved for prophylaxis.

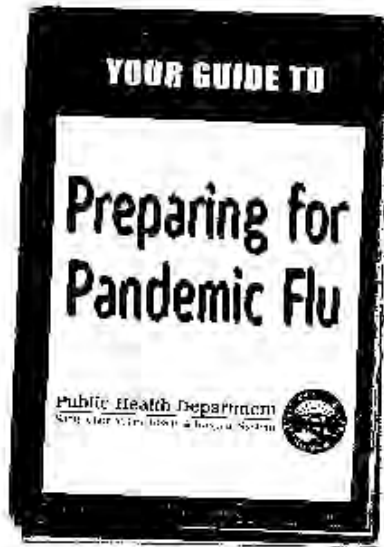
<sup>k</sup> A reduction in the dose of oseltamivir is recommended for persons with creatinine clearance <30 ml/min.

<sup>l</sup> For oseltamivir dosage recommendations for children see chart below.

**Oseltamivir – Dosage Recommendations for Treatment of Children 1 year to 12 years of age**

<b>Weight</b>	<b>Dosage</b>
≤15kg	30 mg twice/day
>15to 23 kg	45 mg twice/day
>23 to 40 kg	60 mg twice/day
>40 kg	75 mg twice/day

Tool 38 - Your Guide to Pandemic Flu Preparedness



DRAFT

# PANDEMIC INFLUENZA

## Santa Clara County Preparations

The Santa Clara County Public Health Department is working with other local, state and federal agencies to respond to pandemic influenza and to maintain essential health care and community services. In fact, governments all around the world are preparing for the possibility of a flu pandemic under the leadership of the Centers for Disease Control and Prevention (CDC) and the World Health Organization.

This information is being provided to help keep you informed about the possibility of a flu pandemic. If a pandemic happens, the Santa Clara County Public Health Department will be the local agency responsible for guiding local medical response and providing health related public information.

## What is Pandemic Influenza?

Influenza (flu) viruses cause infections of the respiratory tract (breathing tubes and lungs). In some people, the complications of influenza can be severe, including pneumonia.

Pandemic flu is a worldwide outbreak of a new strain of influenza virus. Because this new virus has not been seen before, most if not all people will not have any immunity (protection) against it.

## How is Pandemic Flu Different from Regular, Seasonal Flu?

A pandemic flu virus has little or nothing in common with the flu viruses we get every year. A pandemic flu would be a new strain of a potentially much more serious virus and would affect many more people. While there is a vaccine for seasonal flu, there is no vaccine currently available to protect you against a new pandemic flu.

## Why is Pandemic Flu So Serious?

Most or all people would not have immunity to a new pandemic flu virus. Because of this, it is likely that large numbers of people around the world would be infected. Once a pandemic flu develops, it would quickly cause illness around the world. The CDC predicts that 25% to 30% of the US population could become ill.

## Can Pandemic Flu be Prevented?

It is not possible to prevent or stop a pandemic once it begins. A person infected with the pandemic flu virus can be contagious for 24 hours before symptoms begin to show and for up to 14 days after. This makes it very easy for the virus to spread quickly to large numbers of people.

Although the federal government is stockpiling medical supplies and anti-viral drugs, no country in the world has enough anti-viral drugs to protect all their citizens. Anti-viral drugs can be used to treat severe cases as long as the virus does not become resistant to the drugs. Anti-viral drugs would be given first to health care workers and first responders such as emergency services personnel, fire and police. Once a vaccine is available, vaccinations of these workers would be a priority. This would be done because these people would be called upon to contain the spread of the disease, care for and transport patients, and provide essential services.

Other strategies for slowing the spread of flu pandemic could include temporarily closing schools, sports arenas, theaters, restaurants, taverns, and other public gathering places and facilities. These actions would be taken to stop the disease from spreading further.

*(See other side)*



*(Continued)* **PANDEMIC INFLUENZA****Why isn't there a Vaccine?**

There currently is no vaccine to protect humans against a pandemic flu virus because the strain of pandemic flu virus is not yet known. However, vaccine development efforts are under way to protect humans against a pandemic flu virus that might evolve from the current bird flu.

**When is an Influenza Pandemic Expected?**

It is not possible to predict accurately when a pandemic flu will occur or how severe it may be. Flu pandemics occur naturally and there have been three (3) pandemics in the 20<sup>th</sup> century. The pandemic of 1918-19 was the most severe pandemic on record. More than 50 million people around the world died, including about 650,000 Americans.

The current outbreak of avian influenza has flu experts concerned that a pandemic is likely to happen and that it may be quite severe.

**Why Does the Current Bird Flu Outbreak Pose Such a Risk?**

The current bird flu outbreak, spread by wild birds to domestic chickens and ducks, is widespread. Human infections and deaths due to bird flu have occurred from direct contact with infected chickens. The virus has not yet developed the ability to easily pass from person-to-person. If the current bird flu changes so that it infects more humans and spreads easily from person-to-person, it will likely cause a worldwide pandemic of influenza in humans.

**What Can I Do to be Prepared?**

By preparing for a pandemic flu you can reduce your chances of getting sick and help limit the spread of disease.

**Stay informed.** Keep up-to-date on a possible flu pandemic by listening to radio & television, and reading news stories about pandemic flu. Visit the Web sites provided for updated information about pandemic flu.

**Stop germs from spreading.** By doing a few simple things you can stop the spread of germs and viruses:

- Wash your hands often using soap and water.
- Cover your mouth and nose with tissue when coughing or sneezing. Cough or sneeze into your sleeve. Put used tissues in the trash and then wash your hands.
- Stay home when you are sick and stay away from others as much as possible.
- Keep sick children home from school.
- Avoid close contact with people who are sick.

If you have general questions about pandemic influenza, please contact the **Public Health Information Line at 408.885.3980**. Public Health Department staff members are available to answer your questions Monday to Friday from 9 a.m. to 4 p.m.

**Websites on Pandemic Influenza**

[www.sccphd.org](http://www.sccphd.org) Santa Clara County Public Health Department for Your Guide to Preparing for Pandemic Flu.

[www.cdc.gov](http://www.cdc.gov) Centers for Disease Control and Prevention for general information about pandemic flu and other health related information.

[www.pandemicflu.gov](http://www.pandemicflu.gov) U.S. Department of Health and Human Services for updates on national and international pandemic flu.



# Health Officer Q&A

Questions & Answers with Dr. Martin Fenstersheib

Santa Clara County Health Officer

Issue #1 | February 2006

PANDEMIC INFLUENZA

## I'm getting a regular flu shot. Does it protect against the bird flu?

No, the regular flu shot will not protect against bird flu. Currently there is no bird flu vaccine available. An experimental bird flu vaccine has been made and is being used on chickens.

## How do people get bird flu?

People get bird flu from having contact with infected birds or contaminated surfaces. Infected birds shed the virus in saliva and feces (droppings). A person can catch bird flu when an infected chicken coughs or sneezes onto a person's face, or when a person breathes in bird dropping particles.

## What are the symptoms of bird flu?

First, remember there haven't been any birds in the U.S. with bird flu. If you were exposed to birds sick with bird flu in another country, you could have symptoms in up to 14 days. The illness has flu-like symptoms of fever, cough, sore throat, and muscle aches, shortness of breath and even eye infections. Serious cases of bird flu cause life-threatening breathing problems including pneumonia. The current bird flu has been very lethal when humans are infected.

## Is it safe to eat chickens?

Again, there are no birds in the US with bird flu. If bird flu is discovered here, as long as chicken or any poultry has been fully cooked it is safe to eat. You may be able to get the virus by eating undercooked poultry. As a general practice, all poultry should be thoroughly cooked.

## I have a trip next week to Asia, should I cancel?

There is no need to cancel your trip at this time. But it is important for anybody traveling to areas of the world that have bird flu outbreaks to avoid any contact with poultry. Stay away from sick birds. Stay away from live poultry markets where birds and people can be in close contact. It is also important to get your flu shot for seasonal flu.

## So why is there so much talk about the bird flu, is the danger being overstated?

The reason it gets so much attention is that we simply don't know whether this virus will change and cause the next pandemic flu in humans. Pandemic influenza is a worldwide outbreak of a new influenza (flu) virus for which there is little or no immunity (protection) in the human population. Scientists and health professionals are concerned that the current virus in birds may develop into the next human pandemic flu strain, spread easily from person to person, causing serious illness and death.

## Does the current flu vaccine help protect me against the pandemic flu?

No, the flu shot being offered this year does not protect against any pandemic flu strain, whether it's avian or another kind. But it is very important that people get flu shots to protect against regular, seasonal flu.

**Public Health Department**

Santa Clara Valley Health & Hospital System





# Health Officer Q&A

## Questions & Answers with Dr. Martin Fenstersheib

Santa Clara County Health Officer

Issue #1 | January 2006

### PANDEMIC INFLUENZA

### Do you really think that this pandemic flu is likely to happen? What are the chances of it happening in the U.S. over the next couple of years?

There have been three pandemics of influenza in the last century. One of them in 1918-19, the Spanish flu pandemic, was disastrous. Right now, we do not have a pandemic. What we have is an avian influenza virus that has affected people who have had direct contact with infected chickens, and is not easily transmitted from one person to another.

One thing we know about flu viruses is that they are unpredictable and it's possible that this virus could change, become more contagious and set off the beginnings of a pandemic. We can't predict how likely that is. We can't predict whether the next pandemic will be because of this particular virus or some other strain of flu. What we do know is that we are past due for a worldwide pandemic and the steps that we are taking now to prepare will help protect our community whenever the next pandemic happens.

### So if pandemic flu does happen, how bad could it be?

When new pandemic flu spreads it creates a public health emergency. This emergency will not be like anything we've faced before. A pandemic will last longer, make more people seriously ill and may cause more deaths than any other health crisis in our time. So we must be prepared in case this current bird flu changes and causes the next influenza pandemic. That is why federal, state and local authorities are increasing pandemic flu preparation efforts.

### If it happens, is there anything I can do to stay healthy?

The influenza virus is usually spread in the air when people cough or sneeze. Some basic steps you can take to protect yourself and others will be:

- Stay healthy. Keep up your good health by eating a balanced diet, exercising daily, getting enough rest and drinking fluids.
- Wash hands frequently using soap and water.
- Cover coughs and sneezes with tissues. Cough and sneeze into your sleeves. Put used tissues in the trash and then wash your hands.
- If you get sick, stay home and away from others as much as possible. Keep sick children home from school.
- Avoid close contact with people who are sick.

### Anything else?

It is up to each of us to learn about this potential threat and take the steps needed to be prepared.

#### Please go to the following sites for more information.

- [www.cdc.gov](http://www.cdc.gov) for general health-related information
- [www.redcross.org](http://www.redcross.org) for emergency preparation plans
- [www.pandemicflu.gov](http://www.pandemicflu.gov) for pandemic influenza updates

### Five Fast Facts

- 1) NO birds in the United States have shown signs of bird (avian) flu.
- 2) Humans can catch avian flu from infected birds and their droppings, but so far the disease does not seem to be transmitted between humans.
- 3) If the bird flu virus "learns" how to spread easily from person to person, it will be a new human virus strain and people will have little or no immunity (protection) against it.
- 4) At this time, we can't predict if or when pandemic influenza may occur.
- 5) The best protection is to stay informed and stay healthy. Cover your cough with tissue, wash your hands frequently, and follow healthy food, sleep and exercise habits.

## Tool 42 – Household Flu Preparedness Checklist

As many as 1 in 4 people could get sick during a pandemic, with many of them seriously ill. Services and supplies we count on everyday may not be available. Every individual and family could be on their own, without care, for quite a while. This makes being prepared even more important.

Make sure you have these items to prepare for a pandemic flu.

✓	<b>HOUSEHOLD FLU PREPAREDNESS CHECKLIST</b>
<b>TO PLAN FOR A PANDEMIC</b>	
	Two weeks worth of food for you and your family. This should be food that does not need refrigeration (canned meats and fish, beans, soups, fruits, and dry goods like flour, salt and sugar)
	Two weeks of water in sealed, unbreakable containers. If water service is disrupted, plan on one gallon for each person for each day, for up to two weeks.
	Two weeks worth of prescription medicines
	Two weeks worth of ibuprofen or acetaminophen (Tylenol) for each person in the house for fever and pain
	Two weeks supply of other non-prescription drugs and health supplies such as cough and cold medicine, stomach remedies, and vitamins for each person in the house
	Rehydration solution (such as Pedialyte for children and Gatorade for adults and teens)
	Thermometer
<b>TO LIMIT THE SPREAD OF GERMS AND PREVENT INFECTION</b>	
	Teach your children to wash hands frequently with soap and water, and model the correct behavior.
	Teach your children to cover coughs and sneezes with tissues, and be sure to model that behavior.
	Teach your children to stay away from others as much as possible if they are sick. Stay home from work and school if sick.
	Supply of face masks for each person in the house
	Supply of plastic gloves for each person in the house
	Soap, disinfectants, and chlorine bleach for routine cleaning and disinfecting
<b>OTHER EMERGENCY SUPPLIES</b>	
	Cell phone and charger
	Flashlight
	Portable radio and batteries
	Manual can opener
	Garbage bags
	Tissues, toilet paper, disposable diapers

**CHILD CARE AND PRESCHOOL PANDEMIC INFLUENZA PLANNING CHECKLIST**



A pandemic is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges that people have little or no immunity to and for which there may be no vaccine. The disease spreads easily person-to-person and causes serious illness. It can sweep across the country and around the world very quickly. It is hard to predict when the next flu pandemic will occur or how bad it will be.

Child care and preschool programs can help protect the health of their staff and the children and families they serve. Interruptions in child care services during an influenza (flu) pandemic may cause conflicts for working parents that could result in high absenteeism in workplaces. Some of that absenteeism could be expected to affect personnel and workplaces that are critical to the emergency response system. The U.S. Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) offer this checklist to help programs prepare for the effects of a flu pandemic. Many of these steps can also help in other types of emergencies. More information on pandemic flu is available at [www.pandemicflu.gov](http://www.pandemicflu.gov).

**1. Planning and Coordination:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Form a committee of staff members and parents to produce a plan for dealing with a flu pandemic. Include members from all different groups your program serves. Include parents who do not speak English who can help contact other non-English speakers in the community. Staff of very small programs might consider joining together with other similar programs for planning.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Assign one person to identify reliable sources of information and watch for public health warnings about flu, school closings, and other actions taken to prevent the spread of flu.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Learn who in your area has legal authority to close child care programs if there is a flu emergency.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Learn whether the local/state health departments and agencies that regulate child care have plans. Be sure your flu plan is in line with their plans. Tell them if you can help support your community's plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify all the ways a flu pandemic might affect your program and develop a plan of action. (For example, you might have problems with food service, transportation, or staffing.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encourage parents to have a "Plan B" for finding care for their children if the program is closed during a flu pandemic. Give them ideas about where they might seek help based on your knowledge of the local child care community.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Work with those in charge of your community's plan to find other sources of meals for low-income children who receive subsidized meals while in your care. (For example, locate food pantries and meals on wheels.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Learn about services in your area that can help your staff, children, and their families deal with stress and other problems caused by a flu pandemic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stage a drill to test your plan and then improve it as needed. Repeat the drill from time to time. Consider volunteering to help in tests of community plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Talk to other child care and preschool programs in your area to share information that could make your plan better. Discuss ways programs could work together to produce a stronger plan and pool resources.

**2. Student Learning and Program Operations:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan how you would deal with program closings, staff absences, and gaps in student learning that could occur during a flu pandemic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan ways to help families continue their child's learning if your child care program or preschool is closed. (For example, give parents things they can teach at home. Tell them how to find ideas on the internet. Talk with child care resource referral agencies or other groups that could help parents continue their children's learning at home.)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan ways to continue basic functions if your program is closed. (For example, continue meeting payroll and keeping in touch with staff and student's families.)

Infection Control Policies and Actions:			
Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Give special attention to teaching staff, children, and their parents on how to limit the spread of infection. (For example, use good hand washing; cover the mouth when coughing or sneezing; clean to frequently.) Programs should already be teaching these things to build habits that protect children from disease. (See <a href="http://www.cdc.gov/flu/school/">www.cdc.gov/flu/school/</a> and <a href="http://www.healthykids.us/cleanliness.htm">www.healthykids.us/cleanliness.htm</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Keep a good supply of things you will need to help control the spread of infection. (For example, keep hand plenty of soap, paper towels, and tissues.) Store the supplies in easy-to-find places.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tell families that experts recommend yearly flu shots for all children 6 months to 5 years old and for anyone who cares of children in that age range. (See <a href="http://www.cdc.gov/od/oc/media/pressrel/r060223.htm">www.cdc.gov/od/oc/media/pressrel/r060223.htm</a> )
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encourage staff to get flu shots each year. (See <a href="http://www.cdc.gov/flu/protect/preventing.htm">www.cdc.gov/flu/protect/preventing.htm</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tell parents to let your program know if their children are sick. Keep accurate records of when children or staff are absent. Include a record of the kind of illness that caused the absence (e.g., diarrhea/vomiting coughing/breathing problems, rash, or other). (See <a href="http://nrc.uchsc.edu/CFOC/XMLVersion/Chapter_3.xml">http://nrc.uchsc.edu/CFOC/XMLVersion/Chapter_3.xml</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Teach staff a standard set of steps for checking children and adults each day as they arrive to see if they are sick. Make it clear that any child or adult who is ill will not be admitted. (See <a href="http://www.healthykids.us/chapters/sick_main.htm">www.healthykids.us/chapters/sick_main.htm</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have a plan for keeping children who become sick at your program away from other children until the family arrives, such as a fixed place for a sick room. (See <a href="http://nrc.uchsc.edu/CFOC/XMLVersion/Chapter_3.xml">http://nrc.uchsc.edu/CFOC/XMLVersion/Chapter_3.xml</a> .)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Require staff members to stay home if they think they might be sick. If they become sick while at the program, require them to go home and stay home. Give staff paid sick leave so they can stay home without losing wages.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Require ill staff and students to stay at home until their flu symptoms are gone and they feel ready to come back to work.
Communications Planning:			
Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have a plan for keeping in touch with staff members and students' families. Include several different methods of contacting them. (For example, you might use hotlines, telephone trees, text messaging, special Websites, local radio and/or TV stations.) Test the contact methods often to be sure they work.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Make sure staff and families have seen and understand your flu pandemic plan. Explain why you need to have a plan. Give them a chance to ask questions.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Give staff and students' families reliable information on the issues listed below in their languages and at their reading levels. <ul style="list-style-type: none"> <li><input type="checkbox"/> How to help control the spread of flu by hand washing/cleansing and covering the mouth when coughing or sneezing. (See <a href="http://www.cdc.gov/flu/school/">www.cdc.gov/flu/school/</a>.)</li> <li><input type="checkbox"/> How to recognize a person that may have the flu, and what to do if they think they have the flu. (See <a href="http://www.pandemicflu.gov">www.pandemicflu.gov</a>.)</li> <li><input type="checkbox"/> How to care for ill family members. (See <a href="http://www.hhs.gov/pandemicflu/plan/sup5.html#box4">www.hhs.gov/pandemicflu/plan/sup5.html#box4</a>.)</li> <li><input type="checkbox"/> How to develop a family plan for dealing with a flu pandemic. (See <a href="http://www.pandemicflu.gov/planguide/">www.pandemicflu.gov/planguide/</a>.)</li> </ul>

**School District (K-12) Pandemic Influenza Planning Checklist**

**1. Planning and Coordination:**

<b>Tasks</b>	<b>Not Started In Progress Completed</b>
<ul style="list-style-type: none"><li>• Identify the authority responsible for declaring a public health emergency at the state and local levels and for officially activating the district's pandemic influenza response plan.</li><li>• Identify for all stakeholders the legal authorities responsible for executing the community operational plan, especially those authorities responsible for case identification, isolation, quarantine, movement restriction, healthcare services, emergency care, and mutual aid.</li><li>• As part of the district's crisis management plan, address pandemic influenza preparedness, involving all relevant stakeholders in the district (e.g., lead emergency response agency, district administrators, local public health representatives, school health and mental health professionals, teachers, food services director, and parent representatives). This committee is accountable for articulating strategic priorities and overseeing the development of the district's operational pandemic plan.</li><li>• Work with local and/or state health departments and other community partners to establish organizational structures, such as the Incident Command System, to manage the execution of the district's pandemic flu plan. An Incident Command System, or ICS, is a standardized organization structure that establishes a line of authority and common terminology and procedures to be followed in response to an incident. Ensure compatibility between the district's established ICS and the local/state health department's and state education department's ICS.</li><li>• Delineate accountability and responsibility as well as resources for key stakeholders engaged in planning and executing specific components of the operational plan. Assure that the plan includes timelines, deliverables, and performance measures.</li><li>• Work with your local and/or state health department and state education agencies to coordinate with their pandemic plans. Assure that pandemic planning is coordinated with the community's pandemic plan as well as the state department of education's plan.</li><li>• Test the linkages between the district's Incident Command System and the local/state health department's and state education department's Incident Command System.</li></ul>	

- Contribute to the local health department's operational plan for surge capacity of healthcare and other services to meet the needs of the community (e.g., schools designated as contingency hospitals, schools feeding vulnerable populations, community utilizing LEA's healthcare and mental health staff). In an affected community, at least two pandemic disease waves (about 6-8 weeks each) are likely over several months.
- Incorporate into the pandemic influenza plan the requirements of students with special needs (e.g., low income students who rely on the school food service for daily meals), those in special facilities (e.g., juvenile justice facilities) as well as those who do not speak English as their first language.
- Participate in exercises of the community's pandemic plan.
- Work with the local health department to address provision of psychosocial support services for the staff, students and their families during and after a pandemic.
- Consider developing in concert with the local health department a surveillance system that would alert the local health department to a substantial increase in absenteeism among students.
- Implement an exercise/drill to test your pandemic plan and revise it periodically
- Share what you have learned from developing your preparedness and response plan with other LEAs as well as private schools within the community to improve community response efforts.

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## 2. Continuity of Student Learning and Core Operations:

<b>Tasks</b>	<b>Not Started</b>	<b>In Progress</b>	<b>Completed</b>
<ul style="list-style-type: none"> <li>• Develop scenarios describing the potential impact of a pandemic on student learning (e.g., student and staff absences), school closings, and extracurricular activities based on having various levels of illness among students and staff.</li> <li>• Develop alternative procedures to assure continuity of instruction (e.g., web-based distance instruction, telephone trees, mailed lessons and assignments, instruction via local radio or television stations) in the event of district school closures.</li> </ul>			

- Develop a continuity of operations plan for essential central office functions including payroll and ongoing communication with students and parents.

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### 3. Infection Control Policies and Procedures:

Tasks	Not Started	In Progress	Completed
<ul style="list-style-type: none"> <li>• Work with the local health department to implement effective infection prevention policies and procedures that help limit the spread of influenza at schools in the district (e.g. promotion of hand hygiene, cough/sneeze etiquette). Make good hygiene a habit now in order to help protect children from many infectious diseases such as flu.</li> </ul>			
<ul style="list-style-type: none"> <li>• Provide sufficient and accessible infection prevention supplies (e.g., soap, alcohol-based/waterless hand hygiene products, tissues and receptacles for their disposal).</li> </ul>			
<ul style="list-style-type: none"> <li>• Establish policies and procedures for students and staff sick leave absences unique to a pandemic influenza (e.g., non-punitive, liberal leave).</li> </ul>			
<ul style="list-style-type: none"> <li>• Establish sick leave policies for staff and students suspected to be ill or who become ill at school. Staff and students with known or suspected pandemic influenza should not remain at school and should return only after their symptoms resolve and they are physically ready to return to school.</li> </ul>			
<ul style="list-style-type: none"> <li>• Establish policies for transporting ill students.</li> </ul>			
<ul style="list-style-type: none"> <li>• Assure that the LEA pandemic plan for school-based health facilities conforms to those recommended for health care settings (Refer to <a href="http://www.hhs.gov/pandemicflu/plan/sup4.html">www.hhs.gov/pandemicflu/plan/sup4.html</a>).</li> </ul>			

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### 4. Communications Planning:

Tasks	Not Started	In Progress	Completed
<ul style="list-style-type: none"> <li>• Assess readiness to meet communication needs in preparation for an influenza pandemic, including regular review, testing, and updating of communication plans.</li> </ul>			

- Develop a dissemination plan for communication with staff, students, and families, including lead spokespersons and links to other communication networks.
- Ensure language, culture and reading level appropriateness in communications by including community leaders representing different language and/or ethnic groups on the planning committee, asking for their participation both in document planning and the dissemination of public health messages within their communities.
- Develop and test platforms (e.g., hotlines, telephone trees, dedicated websites, and local radio or TV stations) for communicating pandemic status and actions to school district staff, students, and families.
- Develop and maintain up-to-date communications contacts of key public health and education stakeholders and use the network to provide regular updates as the influenza pandemic unfolds.
- Assure the provision of redundant communication systems/channels that allow for the expedited transmission and receipt of information.
- Advise district staff, students and families where to find up-to-date and reliable pandemic information from federal, state and local health sources.
- Disseminate information about the LEA's pandemic influenza preparedness and response plan (e.g., continuity of instruction, community containment measures).
- Disseminate information from public health sources covering routine infection control (e.g., hand hygiene, cough/sneeze etiquette), pandemic influenza fundamentals (e.g., signs and symptoms of influenza, modes of transmission) as well as personal and family protection and response strategies (e.g., guidance for the at-home care of ill students and family members).
- Anticipate the potential fear and anxiety of staff, students, and families as a result of rumors and misinformation and plan communications accordingly.



**BUSINESS PANDEMIC INFLUENZA PLANNING CHECKLIST**



In the event of pandemic influenza, businesses will play a key role in protecting employees' health and safety as well as limiting the negative impact to the economy and society. Planning for pandemic influenza is critical. To assist you in your efforts, the Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) have developed the following checklist for large businesses. It identifies important specific activities large businesses can do now to prepare, many of which will also help you in other emergencies. Further information can be found at [www.pandemicflu.gov](http://www.pandemicflu.gov) and [www.cdc.gov/business](http://www.cdc.gov/business).

**1.1 Plan for the impact of a pandemic on your business:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify a pandemic influenza incident team with designated and responsibilities for preparedness and response planning. The planning process should include input from labor representatives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify essential employees and other critical inputs (e.g. raw materials, suppliers, sub-contractor services, products, and systems) required to maintain business operations by location and function during a pandemic.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Train and prepare auxiliary workforce (e.g. contractors, employees in other job titles/descriptions, retirees).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop and plan for scenarios that involve a significant decrease in demand for your products and/or services during a pandemic (e.g. effect of restriction on mass gatherings, need for by-stander supplies).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Determine potential impact of a pandemic on company business financials using multiple possible scenarios (e.g. affect different product lines under production lines).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Determine potential impact of a pandemic on business related domestic and international travel (e.g. quantities, borders/closures).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Find up-to-date, reliable pandemic information from community public health, emergency management, and other sources and make sustainable links.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish an emergency communications plan and revise periodically. This plan includes identification of key contacts (with back-ups), chain of communications (including suppliers and customers), and processes for tracking and communicating business and employee status.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implement an overall drill to test your plan and revise periodically.

**1.2 Plan for the impact of a pandemic on your employees and customers:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Forecast and allow for employee absences during a pandemic due to factors such as personal illness, family member illness, community containment measures and quarantines, school and/or business closures, and public transportation closures.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Implement guidelines to modify the frequency and type of face-to-face contact (e.g. handshakes, seating in meetings, office space, shared workstations) among employees and between employees and customers (refer to CDC recommendations).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Encourage and track annual influenza vaccination for employees.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure employee access to and availability of health care services during a pandemic, and improve services as needed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure employee access to and availability of mental health and social services during a pandemic, including corporate, community and faith-based resources, and improve services as needed.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify employees and key customers with special needs and incorporate requirements of such persons in your preparedness plan.



**1.3 Establish policies to be implemented during a pandemic:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies on employee compensation and sick leave resources in regard to pandemic (e.g. next-of-kin, liberal leave) including policies on when a previously ill person is no longer infectious and can return to work after illness.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies on flexible work schedules (e.g. telecommuting) and flexible work hours (e.g. staggered shifts).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for preventing influenza spread at the workplace (e.g. promoting respiratory hygiene, cough etiquette, and prompt exclusion of people with influenza symptoms).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for employees who have been exposed to pandemic influenza, suspected to be ill, or become ill at the workplace (e.g. infection control response, immediate mandatory sick leave).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Establish policies for restricting travel to affected geographic areas (consider both domestic and international sites), evacuating employees working in or near an affected area when an outbreak begins, and guidance for employees returning from affected areas (refer to CDC travel recommendations).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Set up authorities, triggers, and procedures for activating and terminating the company response plan, altering business operations (e.g. shutting down operations in affected areas), and transferring business knowledge to key employees.

**1.4 Allocate resources to protect your employees and customers during a pandemic:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide sufficient and accessible infection control supplies (e.g. hand hygiene products, tissues and disinfectants) for front-of-house staff/business locations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Enhance communications and information technology infrastructure as needed to support employees, telecommuting, and remote customer access.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure availability of medical consultation and advice for emergency response.

**1.5 Communicate to and educate your employees:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop and disseminate programs and materials covering pandemic influenza (e.g. signs and symptoms of influenza, modes of transmission, personal and family protection and response strategies (e.g. hand hygiene, coughing/covering etiquette, emergency plans).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anticipate employee fear and anxiety, rumors and misinformation and plan communications accordingly.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ensure that communications are culturally and linguistically appropriate.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disseminate information to employees about your pandemic preparedness and response plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Provide information for the at-home care of ill employees and their family members.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Develop efforts (e.g. mailings, dedicated websites) for communicating pandemic status and actions to employees, vendors, suppliers, and customers inside and outside the workplace in a consistent and timely way, including redundancies in the emergency contact system.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Identify community sources for timely and accurate pandemic information (domestic and international) and resources for obtaining non-pharmaceutical (vaccines and antivirals).

**1.6 Coordinate with external organizations and help your community:**

Completed	In Progress	Not Started	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Coordinate with insurers, health plans, and local or local health care facilities to share your pandemic plans and understand their capabilities and plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Collaborate with federal, state, and local public health agencies and/or emergency responders to participate in their planning processes, share your pandemic plans, and discuss their capabilities and plans.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communicate with local and/or state public health agencies and/or emergency responders about the assets and/or services your business could contribute to the community.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Share best practices with other businesses in your communities, chambers of commerce, and associations to improve community response efforts.

**Tool 51 - It's Not Flu as Usual, What Businesses Need to Know About Pandemic Flu Planning Brochure, The Trust for America's Health**

