

PIMA COUNTY HEALTH DEPARTMENT
**PANDEMIC INFLUENZA PREPAREDNESS AND RESPONSE
PLAN**



CORE DOCUMENT
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- Supplement 8:** Community Disease Control and Prevention
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EXECUTIVE SUMMARY AND INTRODUCTION

An influenza pandemic has greater potential to cause rapid increases in death and illness than virtually any other natural health threat. Planning and preparedness before the next pandemic strikes is critical for an effective response. This Pandemic Influenza Preparedness and Response Plan describes a coordinated strategy to prepare for and respond to an influenza pandemic.

Influenza causes seasonal epidemics of disease resulting in an average of 36,000 deaths each year. A pandemic, or global epidemic, occurs when there is a major change in the influenza virus so that most or all of the world's population has never been exposed previously and is thus vulnerable to the virus. Three pandemics occurred during the 20th century, the most severe of which, in 1918, caused over 500,000 U.S. deaths and more than 20 million deaths worldwide. Recent outbreaks of human disease caused by avian influenza strains in Asia highlight the potential of new strains to be introduced into the population. Recent studies suggest that avian strains are becoming more capable of causing severe disease and that these strains have become endemic in some wild birds. If these strains combine with human influenza viruses such that they can be effectively transmitted between people, a pandemic can occur.

Characteristics of an influenza pandemic that must be considered in preparedness and response planning include: 1) simultaneous impacts in communities across the U.S., limiting the ability of any jurisdiction to provide support and assistance to other areas; 2) an overwhelming burden of ill persons requiring hospitalization or outpatient medical care; 3) likely shortages and delays in the availability of vaccines and antiviral drugs; 4) disruption of national and community infrastructures including transportation, commerce, utilities and public safety; and 5) global spread of infection with outbreaks throughout the world.

Substantial resources have been allocated to assure and expand influenza vaccine production capacity; increase influenza vaccination use; stockpile influenza antiviral drugs in the Strategic National Stockpile (SNS); enhance U.S. and global disease detection and surveillance infrastructures; expand influenza-related research; support public health laboratories; and improve healthcare system readiness at the community level.

Additional preparation is also ongoing in several critical areas. Vaccination is the primary strategy to reduce the impact of a pandemic but the time required currently to develop a vaccine and the limited U.S. influenza vaccine production capacity represent barriers to optimal prevention. Enhancing existing U.S. and global influenza surveillance networks can lead to earlier detection of a pandemic virus or one with pandemic potential. Virus identification and the generation of seed viruses for vaccine production is a critical first step for influenza vaccine development.

The development of Pima County's plan was based on the Centers for Disease Control and Prevention (CDC) guidance, *Pandemic Influenza: Planning Guide for State and Local Officials, Version 4.1, January 2006*, the U.S. Department of Health and Human Services' *Pandemic Influenza Response and Preparedness Plan, August, 2004*, and Arizona Department of Health Services' *Pandemic Influenza Response Plan, July 2012*. The plan was developed through the joint efforts of the Public Health Emergency Preparedness Program, the Vaccine Preventable Disease/Immunization Program, Epidemiology Program, and the Office of Emergency Management and Homeland Security, at the Pima County Health Department.

This plan will be reviewed and updated annually by the Public Health Emergency Preparedness Program, under the advisement of the above programs/offices.

SECTION ONE: BACKGROUND AND OBJECTIVES

1.1 PURPOSE

According to the World Health Organization (WHO), “an influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in several simultaneous epidemics worldwide with enormous numbers of deaths and illness.” In past pandemics, influenza viruses have spread worldwide within months, and are expected to spread even more quickly given modern travel patterns. There may be as little as one to six months warning before outbreaks begin in the United States. Outbreaks are expected to occur simultaneously, preventing shifts in resources that commonly occur in other natural disasters. Pandemic influenza is considered to be a high-probability event, and some experts consider it to be inevitable.

In Arizona, an influenza pandemic could result in numerous persons ill with influenza. The number of persons hospitalized would exceed the capacity of these institutions. Additionally, it would be expected that the number of deaths due to Influenza-Like Illness (ILI) would raise above regular influenza season rates. The Pima County Health Department has drafted this Pandemic Influenza Response Plan to promote an effective and coordinated response, from the first novel virus alert through the conclusion of the last wave of the pandemic.

1.2 PLAN ORGANIZATION

This plan is an Annex to the Pima County Health Department All Hazards Public Health Emergency Response and Recovery Plan. The response activities will be carried out in collaboration with the Pima County Office of Emergency Management and Homeland Security, Arizona Department of Health Services and other local and state agencies and organizations.

National pandemic planning is divided into three periods and six phases, from early identification of a novel virus to resolution of the pandemic. These phases are defined by World Health Organization in collaboration with CDC, and are:

- 1. Inter-Pandemic Period (Phases 1 and 2)**
- 2. Pandemic Alert Period (Phases 3, 4 and 5)**
- 3. Pandemic Period (Phase 6)**

The State of Arizona’s plan follows the same phase guidelines, prescribing necessary activities and identifying responsible parties by pandemic phase. Four essential components of a pandemic response are defined in the CDC’s Influenza Pandemic Guidance Document and include: **1. Disease and Viral Surveillance; 2. Vaccine and Pharmaceutical Delivery; 3. Emergency Response; and 4. Communications.** Each pandemic phase includes essential activities to be accomplished in each of these four component areas and is used in this plan.

The plan also follows the organizational structure of the HHS Flu Pandemic Plan (November 2009), and focuses on preparedness and response elements identified in eleven of the federal plan’s Public Health Response Activity Supplements. The supplements included in this plan are:

- Supplement 1: Pandemic Influenza Disease Surveillance**
- Supplement 2: Laboratory Diagnostics**
- Supplement 3: Healthcare Planning, Infection Control**
- Supplement 4: Infection Control**
- Supplement 5: Clinical Guidelines**
- Supplement 6: Vaccine Distribution and Use**
- Supplement 7: Antiviral Drug Distribution and Use**
- Supplement 8: Community Disease Control and Prevention**

Supplement 9: Management of Travel-Related Risk of Disease
Supplement 10: Public Health Communications
Supplement 11: Psychosocial Workforce Support Services.

Priority activities in each Supplement are organized under the time periods laid out in the WHO classification system proposed in February 2009: the **Inter-pandemic Period**, the **Pandemic Alert Period**, and the **Pandemic Period**. Some of the Supplements further subdivide Pandemic Period activities according WHO pandemic phases or to local levels of disease spread that will trigger particular activities over the course of the pandemic.

1.3 SITUATIONS AND ASSUMPTIONS

The development of Pima County Pandemic Influenza Preparedness and Response Plan is based on the following assumptions:

- A. Influenza pandemic is inevitable.
- B. A novel influenza virus strain will likely emerge in a country other than the United States, but a novel strain could emerge first in the United States.
- C. Although there may be isolated pockets, the pandemic could affect all geographic areas of the state.
- D. With the emergence of a novel strain, it is likely that all persons will need two doses of vaccine to achieve optimal antibody response. However, when the pandemic occurs, vaccines and medicines will be in short supply and will have to be allocated on a federally defined priority basis.
- E. The federal government has assumed responsibility for devising a liability program for vaccine manufacturers and persons administering the vaccine.
- F. According to Centers for Disease Control and Prevention (CDC) guidelines, total vaccine supply will be under the control of the federal government, with states receiving an allotment. Production of an influenza vaccine currently requires months, so there may not be a supply in the wake of a pandemic.
- G. The only effective antiviral medication (*Oseltamivir phosphate - Tamiflu*) to combat the avian flu (H5N1) is limited in supply, very expensive, and impractical for local governments or organizations to store useful quantities.
- H. Pima County's temporary residents, winter visitors, migrant workers and tourists will create an increase in the potential vaccination target population at any given time.
- I. The emergency response element will require the substantial interaction of agencies beyond the health department.
- J. Response to the demand for services will require non-standard approaches, including:
 - 1. Discharge of all but critically ill hospital patients
 - 2. Expansion of hospital capacity using all available space and less than code compliance beds
 - 3. Increase of patient-to-hospital staff ratio
 - 4. Recruitment of volunteers who can provide custodial services under the general supervision of health and medical workers
 - 5. Relaxation of practitioner licensure requirements as deemed appropriate, and
 - 6. Utilization of general purpose and special needs shelters as temporary health facilities.
- K. The federal government has assumed responsibility for developing "generic" guidelines and information templates, including fact sheets, triage and treatment of influenza patient protocols, and guidelines for the distribution and use of antiviral agents that can be modified at the state and local level. Until these are developed and available, the State of Arizona and Pima County has the responsibility to develop such guidelines for its citizens.
- L. Secondary bacterial infections following influenza illness may stress antibiotic supplies.

1.4 GOALS AND OBJECTIVES

Goals:

Planning and preparedness are essential to optimally achieve the goals and objectives of a pandemic response. Therefore the goals of this plan are to define the roles, responsibilities, and actions of key stakeholders before a pandemic and at each stage of a pandemic response. Specifically this plan will:

- Describe the role of Pima County Health Department in coordinating a local response to an influenza pandemic
- Provide guidance and tools to promote pandemic preparedness planning and coordination to local healthcare responders, including both public and private sectors.

Objectives:

- Ensure optimal coordination, decision making and communication between local healthcare responders and state officials.
- Detect novel influenza strains through clinical and virologic surveillance of human and animal influenza disease.
- Implement a vaccination program that rapidly administers vaccine to priority groups and monitors vaccine effectiveness and public safety.
- Deliver antiviral drug therapy and prophylaxis and avoid inappropriate use of these agents, which may result in antiviral resistance.
- Implement measures to decrease the spread of the disease guided by the epidemiology of the pandemic.
- Provide optimal medical care and maintain essential community services.
- Communicate effectively with the public, healthcare providers, community leaders, and the media.

1.5 PANDEMIC PHASES

An influenza pandemic is defined by the emergence of a novel influenza virus, to which much or all of the population is susceptible, that is efficiently transmitted person-to-person, and causes disease outbreaks in multiple countries. The influenza virus strain responsible for the 1918 pandemic was one of the most deadly and was notable for causing serious illness among young adults. The reason for the increased severity in the 1918 pandemic has not been established. Pandemics in 1957 and 1968 were less severe but still caused markedly increased morbidity and mortality compared with annual influenza epidemics.

The World Health Organization (WHO), in 1999 and again in 2009, defined six pandemic phases under which preparation and response can be organized (**Table 1**). Most of the activities defined as preparedness would be done during the inter-pandemic period, Phases 1 and 2. A Pandemic Alert (Phases 3, 4, and 5) would signal the beginning of a transition from preparedness to response that should be in place by the time of a Pandemic Period (Phase 6). Before declaring a pandemic alert, WHO will convene an international task force to ensure that the assessment of the new virus's pandemic potential includes an assessment to determine whether the situation could represent either an unusual ecological situation of an animal vector spreading the virus to persons in different locations or whether it could represent bioterrorism.

These phases provide a framework for planning, however, **specific actions may not be needed at every phase or level for each component of preparedness or response**. In addition, actions may be different if infections caused by a novel influenza virus occur in the U.S. or another country or if person-to-person transmission of a new strain is slow and limited or is widespread. For example, the U.S. response to avian influenza outbreaks in Hong Kong in 1997 and 2002 was limited because the virus did not spread well between people and was contained by public health measures such as culling infected chicken flocks.

Table 1: World Health Organization ‘Pandemic Phases 2009’

Period	Phase	Definition
Inter-Pandemic	1	No new influenza virus subtypes have been 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 to be low.
	2	No new influenza virus subtypes have been detected in humans. However, a circulated animal influenza virus subtype poses a substantial risk of human disease.
Pandemic Alert	3	Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.
	4	Small cluster(s) with a new subtype but no human-to-human transmission but spread is highly localized suggesting that the virus is not well adapted to humans.
	5	Larger clusters(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).
Pandemic	6	Increased and sustained transmission in general population.

***Note:** *The distinction between **phases 1 and 2** is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and other scientific parameters. The distinctions among **phases 3, 4, and 5** are based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include rate of transmission, geographical location and spread, severity of illness, presence of genes from human strains (if derived from an animal strain), and other scientific parameters.*

1.6 LEGAL AUTHORITY

Table 2 includes legal authorities which may be initiated in the event of any pandemic phase listed above within the state of Arizona.

Table 2: Statutory Authority (State of Arizona)

STATUTORY AUTHORITY		
STATUTE	AGENCY	AUTHORITY
ARS 36-782	Governor	In consultation with the Director of ADHS, may issue an enhanced surveillance advisory .
ARS 35-192	Governor	Allows Governor to declare a state of emergency .
ARS 26-303	Governor	Gives Governor authority over state agencies and the right to exercise police power . Allows Governor to delegate authority to adjutant general.
ARS 26-310	Arizona Division of Emergency Management	Allows any person holding any license, certificate, or other permit issued by any other state to render aid to meet the emergency as fully as if such license had been issued in this state.
ARS 26-311	Arizona Division of Emergency Management	Protects state employees, volunteers, and employees from other states against liability claims while performing duty's during a state of emergency.
ARS 36-136	Arizona Department of Health Services	Allows Director to institute isolation or quarantine .
ARS 36-787(A)(6)	Arizona Department of Health Services	Establishes in conjunction with applicable licensing boards a process for temporary waiver of the professional licensure requirements to address the state of emergency or state of war emergency.
ARS 787(A) (7)	Arizona Department of Health Services	Grants temporary waivers of health care institution licensure requirements to address the state of emergency or state of war emergency.
ARS 36-624	Pima County Health Department	Allows county health departments to adopt quarantine and sanitary measures to prevent the spread of the disease.
ARS 36-627	Pima County Health Department	Allows county health departments to assume control of hospitals and other places where infectious or contagious disease exists. Allows county health department to provide temporary hospitals or places of reception for persons with infectious or contagious diseases.
ARS 36-628	Pima County Health Department	Allows county health departments to employ physicians and others they deem necessary to provide care for persons afflicted with contagious or infectious diseases.
ARS 26-311	Local Governments (i.e. City of Tucson)	Allows mayors or chairmen of the board of supervisors to declare a local emergency .
AAC R9-6-204	Arizona Department of Health Services	Allows for collection of patient specific information for positive laboratory reports of influenza

SECTION TWO: EMERGENCY MANAGEMENT ORGANIZATION

***Note:** In accordance with the National Incident Management System (NIMS), Pima County Health Department has fully adopted the Incident Command System (ICS) as its primary event/emergency management system and organization structure. ICS will be instituted upon notification of any event, emergency, or disaster.

2.1 EXECUTIVE PLANNING COMMITTEE

Pima County Health Department is the lead agency for an incident of this magnitude (pandemic influenza) within Pima County. When identified conditions have the possibility of creating influenza pandemic, the Director of the Pima County Health Department will activate an Executive Planning Committee. The Executive Planning Committee will consist of the following:

Pima County Health Department Executive Planning Committee

- (1) Chief Medical Officer
- (2) Public Health Emergency Preparedness Manager
- (3) Epidemiology Manager
- (4) Immunization Program Manager
- (5) Emergency Management Director (EOC Manager)
- (6) Laboratory Manager
- (7) Public Health Nursing Manager
- (8) Public Information Officer (PIO)
- (9) Pima County Medical Examiner

The Pima County Health Department Executive Planning Committee will be directly involved in the direction and implementation of policy and operational procedures as a result of pandemic influenza. This committee will work as an advisory committee under the overall incident commander and/or the Pima County Health Department Director. Members of the Executive Planning Committee can be added or subtracted as, made necessary by the event, and may hold additional roles under the Incident Command System.

2.2 HEALTH DEPARTMENT DIRECTOR

The Director of the Pima County Health Department serves as the overall Emergency Management and/or Emergency Operations Center Director. With the advice of the Executive Planning Committee, the Director will notify the Pima County Office of Emergency Management and Homeland Security and the Arizona Department of Health Services in the event there is a pandemic influenza outbreak in Pima County. The Director shall advise the Chair of the Board of Supervisors when conditions indicate that activation of this plan is appropriate and direct any necessary change in policy.

2.3 CHIEF MEDICAL OFFICER

The Chief Medical Officer of the Pima County Health Department serves on the command staff as the Medical Expert. As such, the Chief Medical Officer directs all components of the public health response, and closely appraises the Health Department Director of all necessary actions. The Chief Medical Officer also provides direction to the Disease Control Program and all other programs under his/her control, as well as the Health Department Operations Center. Other Health Department programs as well as other non-health County programs shall be at the disposal of the Chief Medical Officer as needed. The Chief Medical Officer and/or the Public Health Emergency Preparedness Manager also provide direction and coordination of the Pima County Health Operations Center during the event.

2.4 PIMA COUNTY HEALTH DEPARTMENT

Pima County Health Department Division of Disease Control consists of three operating programs: Epidemiology Program, Vaccine Preventable Disease/Immunization Program, and Public Health Emergency Preparedness Program. Epidemiology and Immunization programs shall serve as the lead investigation and coordination entities, under the direction of the Pima County Health Department Chief Medical Officer and/or Public Health Emergency Preparedness Manager. The Public Health Emergency Preparedness Program will maintain the Health Department's Operations Center on the 3rd floor of the Health and Welfare Building and coordinate response efforts through the Office of Emergency Management and Homeland Security. A back up site will be designated for use in the event that the primary site is inaccessible or unusable.

The **Epidemiology Program** has the primary responsibility for all epidemiological investigations which includes the following components:

1. Formulation of case definitions
2. Tracking distribution of cases with respect to person, place and time (descriptive epidemiology)
3. Tracking distribution of contacts with respect to person, place and time
4. Definition of the population at risk and mapping initial victim locations
5. Identification of the source(s), mode(s) of transmission and cause(s) of the disease outbreak
6. Analysis of risk factors for disease
7. Formulation of recommendations for containment, prevention and treatment measures, including the provision for isolation and quarantine

The **Vaccine Preventable Disease/ Immunization Program** have the primary responsibility for all vaccine related management, including the following:

1. Maintain caches of vaccine and antiviral drugs
2. Direct the deployment of mass clinics and prioritize the groups of individuals identified to receive prophylaxis or vaccine (in conjunction with the Chief Medical Officer and Public Health Nursing Manager)
3. Coordinating with influenza sentinel surveillance sites

The **Public Health Emergency Preparedness Program** has the primary responsibility for maintaining the Health Department Operations Center (HDOC) and internal/external communications, which includes the following components:

1. Establish communication between the HDOC and the Office of Emergency Management and Homeland Security (EOC)
2. Implement and coordinate management of the event through ICS organizational structure
3. Provide for all necessary logistical support including; volunteers, supplies, pharmaceuticals, vaccines and clinic sites, isolation and quarantine, and casualty and fatality management (in coordination with the Office of Emergency Management and Homeland Security)
4. Implement and update formal incident action plans and scenario updates with the Incident Commander and Executive Planning Committee.

2.5 OFFICE OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY (EOC)

The Pima County Office of Emergency Management and Homeland Security shall establish and maintain communications with the Arizona Division of Emergency Management and the Arizona Department of Health Services and upon notification of a pandemic influenza epidemic in Pima County activate the Pima County Emergency Operations Plan. Office of Emergency Management shall assist the Pima County Health Department to coordinate county and state agencies' activities to respond to an influenza pandemic emergency. The City of Tucson, County Government, and all affected municipalities/jurisdictions will combine all emergency management and public information activities under the direction and auspices of the Pima County Office of Emergency Management and Homeland Security. All jurisdictions shall support the over-riding objective of centralized information dissemination, which shall be instituted immediately.

2.6 LOCAL SUPPORT AGENCIES

- Pima County Division of Environmental Health
- Pima County Sheriff's Department
- Pima County Animal Care
- City of Tucson
- Tucson Metropolitan Medical Response System
- Volunteers and Volunteer Organizations (See Volunteer Annex under All-Hazards Base Plan)
- Sovereign Nations
- Mental Health Agencies
- RACES
- Media
- Faith-based organizations
- Fire & EMS Agencies
- National Guard
- Correctional facilities
- Pharmacies
- Border Patrol
- Universities and Colleges
- School districts
- Large employers and industry
- Nursing homes
- Mortuaries
- Humane Society

SECTION THREE: CONCEPT OF OPERATIONS

Any pandemic flu response involves the following elements:

- 3.1:** Pima County Community Response Planning
- 3.2:** Federal Resources, Guidance and Direction
- 3.3:** State Resources, Guidance and Direction
- 3.4:** State Laboratory
- 3.5:** Local Support from Agencies within Pima County
- 3.6:** Surveillance and Data Management
- 3.7:** Vaccine and Antiviral Medication Procurement
- 3.8:** Provision of Vaccine and Antiviral Medications to Population in Pima County
- 3.9:** Prevention, Education, and Media Outreach
- 3.10:** Hospital and Healthcare Coordination
- 3.11:** Behavioral Health Plan
- 3.12:** Volunteer Management
- 3.13:** Security
- 3.14:** Personal Preparedness
- 3.15:** Strategies for continuity of government

3.1 Pima County Community Response Planning

Pima County Health Department's Public Health Emergency Response plan has provided a framework for overall preparation, direction and coordination related to an influenza pandemic. Because pandemic influenza planning issues substantially overlap with planning issues related to other health threats, many of the components of this plan are the same as those contained in plans for bioterrorism or other health emergencies. Principal elements of the response to pandemic influenza previously addressed in Pima County Health Department planning initiatives include:

- Command, control, and management procedures, including legal authorities
- Disease Surveillance
- Vaccine management, including distribution and administration
- Acquisition and use of antiviral agents
- Appropriate use of personal protective equipment
- Appropriate implementation of community level control measures (e.g., travel restrictions, school closings, isolation and quarantine)
- Emergency response, including delivery of medical care, providing social services, and maintenance of essential community services
- Communications – internal and external.

Organizing this plan around these elements and pandemic phases has been a useful conceptual approach, although the rapid evolution of events during a pandemic may mean that phases overlap.

Access to, and provision of, quality medical care is among the most important strategies to decrease morbidity and mortality during a pandemic, particularly during the period before vaccine becomes available. Severe influenza seasons can severely strain current medical care systems. In a pandemic, higher disease rates are likely to stress outpatient and inpatient care further, and this situation is likely to be exacerbated by high rates of absenteeism among health care workers, who are likely to be at increased risk of exposure and illness, or who have to care for ill family members during a pandemic. In addition to managing infections contracted in the community, it will be important to control the spread of infection among vulnerable populations in hospitals and long-term care facilities, such as nursing homes. To address health care issues, Pima County Health Department has solicited representatives of health care organizations and hospitals to be included in pandemic planning activities. In addition, Pima County Health Department has

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recommended that health care organizations and hospitals review existing plans and guidelines that may be relevant during a pandemic and, where appropriate, develop plans specific to an influenza pandemic.

If the medical care system is to respond to increased demands for care during a pandemic, it will be necessary to protect medical care providers from becoming infected or developing illness. Since vaccine and antiviral supplies likely will be limited, health care organizations and hospitals have defined critical staff and established priority levels for preventive interventions to assure continued operations. In hospitals, health care workers are regularly educated regarding appropriate infection control practices to prevent the spread of influenza. Strategies for enhancing staffing and hospital bed capacity have been developed by hospitals in Pima County, in accordance with Arizona Department of Health Services contract guidelines. If the need for hospitalization exceeds available capacity, mechanisms are in place for care delivery in non-traditional settings, such as recreation centers and schools, through the Pima County Office of Emergency Management and Homeland Security. Public-private coordination will be implemented to assure that medical care and support (such as meals) are provided. Organizations such as the Red Cross (Southern Arizona Chapter), community volunteer groups (including CERT teams), or home health care agencies will play key roles.

Influenza outbreaks in hospitals and long-term care facilities such as nursing homes occur each season. This problem will be exacerbated during a pandemic. Because persons in long-term care facilities are usually elderly or have underlying chronic medical conditions, this population is among those with highest risk for developing life-threatening complications from influenza infection. Planning in institutional settings focuses on strategies to reduce the introduction of infections, to rapidly detect and respond to outbreaks, and to provide care and decrease the spread of infection.

Other vital community services also will be affected by an influenza pandemic. A moderate pandemic could infect one-third of the population. Thus, essential services such as fire and police, utilities, waste disposal, and transportation systems are likely to experience personnel shortages and potential disruption. Work absenteeism because of a need to care for ill family members, or concern about potential contact with infectious persons in the workplace, may exacerbate the problem. Reluctance to travel to affected areas may impact the delivery of food supplies and other essential materials in some communities. Coordination with emergency response agencies, including the Tucson Metropolitan Medical Response System, the National Disaster Medical System and all local municipalities and jurisdictions for the development of strategies are ongoing.

3.2 Federal Resources, Guidance, and Direction

As the pandemic develops, the World Health Organization (WHO) will notify the Centers for Disease Control and Prevention (CDC) and other national health agencies of the progress of the pandemic. CDC will communicate with Arizona Department of Health Services (ADHS) and other state and territorial health departments about pandemic stages, vaccine availability, recommendations for prioritizing vaccine and antiviral/antibiotics, information about the virus (laboratory findings), national response coordination, and other recommended strategies for pandemic detection, control and response. ADHS is the main conduit for communications with the CDC for all statewide parties. Resources provided by the federal government may include vaccine and antivirals for dissemination at the State level.

Within the US Department of Health and Human Services, pandemic preparedness activities will be overseen by the Assistant Secretary for Health (ASH), in coordination with the Assistant Secretary for Public Health Emergency Preparedness. The National Vaccine Program Office (NVPO) will oversee and be responsible for periodic revisions and updates to the pandemic influenza plan, and will assure integration with other vaccine specific emergency preparedness and response plans.

3.3 State Resources, Guidance, and Direction

ADHS is the main conduit for communications with the CDC for all statewide parties. If there is vaccine available, the Immunizations Group in the ADHS Public Health Incident Management System (PHIMS) structure, with guidance from the Pima County Health Department Immunization Program, will play a major

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role in pandemic flu vaccine allocation to providers statewide and/or vaccine administration.

The Pima County Health Department Immunization Program is primarily responsible for ensuring there is an adequate workforce with which to administer influenza vaccine and antivirals and is responsible for coordinating clinical care and assessing prophylactic needs. However, ADHS plans to be available to broker resources and volunteers to manage the immunization need at county immunization clinics.

The State will provide support and direction from the ADHS emergency operations center utilizing ADHS's version of NIMS (PHIMS). The State will coordinate surveillance statewide primarily using resources from the Infectious Disease Epidemiology Section (IDES) in conjunction with the ADHS State Laboratory.

The ADHS will provide guidance and assistance to local health departments regarding special needs populations (populations at high risk for influenza complications and for influenza transmission: long term care facility residents, homebound, elderly, orphans, schools, health care providers, other institutions) consistent with national recommendations.

The ADHS will provide support to the county health departments if their resources are exceeded. Additionally ADHS provides regular updates on pandemic status and response activities to the county health departments, through conference calls, SIREN postings, health alerts and other avenues.

The Communications Group in the ADHS PHIMS structure is responsible for public messaging and community education. The Public Information Officer and Health Alert Network work together to develop and subsequently release community education information. During a state of emergency, messaging coordination between the Counties and the State will occur through the Joint Information Center at the local level and at the state level through the Joint Emergency News Center at the State Emergency Operations Center (SEOC).

ADHS has the capacity to activate a live call center and currently maintains a 24-Hour Public Information line. The Department website, public service announcements press conferences, and printed materials are all methods that ADHS employs to serve the public with up-to-date information.

If the Governor declares a State of Emergency, the State's emergency management structure is put into place (refer to the State Emergency Response and Recovery Plan (SERRP)). The ADHS Pandemic Flu Plan designate the Director of ADHS to serve as the Incident Commander for all statewide activities related to the Pandemic. ADEM will operate the SEOC and provide other logistical support. The state plans for ADHS and ADEM to work together to respond to the needs of the pandemic, in conjunction with county/local health departments, local emergency management, and other partners and stakeholders.

Per ARS 36-787, if the Governor declares a State of Emergency in response to an imminent threat of a pandemic, the ADHS will have the primary responsibility for:

1. Planning and executing public health emergency assessment, mitigation, preparedness response and recovery.
2. Coordinating public health emergency response among state, local and tribal authorities.
3. Collaborating with relevant federal government authorities, elected officials of other states, private organizations, and private sector companies.
4. Organizing public information activities regarding state public health emergency response operations.
5. Organizing recovery operations and mitigation initiatives subsequent to public health emergencies.
6. Establishing, in conjunction with applicable professional licensing boards, a process for temporary waiver of professional licensure requirements necessary for the implementation of any measures required to adequately respond to the state of emergency.
7. Granting temporary waivers of health care institution licensure requirements necessary for implementation of measures required to adequately address the state of emergency.

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In addition, per this statute, the governor, in consultation with the director of the department of health services, may issue orders to:

1. Mandate medical examinations for exposed persons.
2. Ration medicine and vaccines
3. Provide for transportation of medical support personnel and ill and exposed persons.
4. Provide for procurement of medicines and vaccines.
5. Mandate treatment or vaccination of persons who are diagnosed with illness resulting from exposure or who reasonably believed to have been exposed or who may reasonably be expected to be exposed.
6. Isolate and quarantine persons (including groups without a written order).

3.4 State Laboratory

The Laboratory Group in the ADHS PHIMS structure, primarily composed of sections of the Bureau of Public Health State Laboratory Services (State Laboratory) supports influenza surveillance by testing influenza specimens submitted by providers throughout the state. The State Laboratory performs preliminary typing, forwards isolates with unusual results to CDC for identification of novel viruses, and provides specimens routinely to CDC for antigenic characterization. The State Laboratory has the capacity for polymerase chain reaction (PCR) testing for identification of influenza A H1, H3, H5, H7, and others as testing information is provided by CDC.

In preparation for the pandemic, the State Laboratory will be responsible for coordinating the detection of the pandemic strain by receiving and forwarding specimens to the CDC laboratory, or performing testing in house, as appropriate. Recommendations for patients to be tested during a pandemic will likely come from the CDC. The purpose of specimen testing does not include testing all patients with suspected influenza.

The State Laboratory supplies influenza collection kits to local health departments. Upon provider request, the local health departments can offer the collection kits and facilitate transport of the specimens to the State Laboratory for testing.

3.5 Local Support from Agencies within Pima County

A coordinated effort between agencies in Pima County must be achieved in order to ensure a successful implementation of this plan. The Pima County Office of Emergency Management and Homeland Security's execution of the Emergency Operations Center plan shall ensure that county agencies such as the Sheriff's Department, the Division of Environmental Health, and the Division of Public Health work effectively with Fire departments and districts, local law enforcement agencies, EMS providers, city governments, hospitals, the local Sovereign Indian Nations, and the State.

3.6 Surveillance and Data Management

Surveillance for influenza requires global and national monitoring both for virus strain and disease activity. Timely identification of circulating or novel virus strains, including those from avian and animal sources, is important for pandemic detection and vaccine preparation. Monitoring influenza disease activity is important to facilitate resource planning, communication, intervention and investigation.

Pima County Health Department will coordinate surveillance county-wide as part of the ongoing disease surveillance network, primarily using resources from the Epidemiology Program and Vaccine Preventable Disease/Immunization program, in conjunction with the ADHS State Laboratory. The Epidemiology program maintains the primary influenza surveillance infrastructure, interprets and disseminates surveillance data, and provides recommendations to local healthcare facilities and hospitals. Surveillance for inter-pandemic periods includes laboratory reporting, reporting of influenza-like illness (ILI) at sentinel sites, typing/sub-typing of specimens at the state laboratory, and other syndrome and non-traditional surveillance data sources, such as sales of over-the-counter pharmaceuticals and school absentee rates.

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These current influenza surveillance systems will provide the foundation for surveillance during a pandemic. Recent enhancements include updating data systems to provide real-time reporting and data feedback to Arizona Department of Health Services, through the Medical Electronic Disease Surveillance and Intelligence System (MEDSIS), analysis of mortality and illness data by age, and developing outbreak detection algorithms to detect changes in levels of ILI. Future enhancements will include exploring hospital based surveillance for severe respiratory syndromes that may be caused by influenza but also may be related to SARS or other agents, and continuing to work with healthcare providers and schools to increase participation in the sentinel provider and laboratory influenza surveillance so that more accurate and reliable estimates of influenza can be made at the county level.

Because a pandemic influenza virus strain is likely to arise from a blend of animal and human influenza viruses, coordination of surveillance with the U.S. Department of Agriculture (USDA) is critical, given USDA's responsibility to conduct influenza surveillance in domestic animals. Surveillance and investigations may be conducted by Pima County animal health officials, USDA-accredited veterinarians, University of Arizona Veterinary personnel and/or members of the poultry industry.

Global collaboration, under the coordination of WHO, is a key feature of influenza surveillance. WHO established an international laboratory-based surveillance network for influenza in 1948. The network currently consists of 112 National Influenza Center (NIC) laboratories in 83 countries, and four WHO Collaborating Centers for Reference and Research of Influenza (one is located at CDC). The primary purpose of this surveillance network is to detect the emergence and spread of new antigenic variants of influenza, and then to use this information to update the formulation of influenza vaccine, and to provide as much warning as possible about the next pandemic. This system provides the foundation of worldwide influenza prevention and control. The CDC maintains frequent communications with WHO headquarters in Geneva, with the other three WHO Collaborating Centers, and with NICs worldwide.

3.7 Vaccine and Antiviral Medication Procurement

Initially, when a pandemic influenza strain first infects people in the United States, there will likely be no or very limited amounts of vaccine available. This period could last for up to six months depending on when the pandemic strain is detected and how rapidly it spreads to the U.S. and on how rapidly vaccine development and production proceed. Previous 20th Century pandemics began in the U.S. within weeks of the initial disease outbreak and/or virus identification. In the absence of vaccine, primary response strategies include interventions to slow the spread of infection, antiviral therapy and prophylaxis, and quality medical care. After vaccine becomes available, it is anticipated that for some period, vaccine availability will be far less than national demand, requiring prioritized usage of vaccine to optimally decrease morbidity and mortality. As vaccine production increases, and with some of the population already having been vaccinated, in the initial targeted program, supply will become adequate to meet demand. This may lead to changes in strategies for vaccine distribution and administration because there may no longer be a need to limit vaccine only to those in designated priority groups. Tracking vaccine production, delivery, and use will be important to guide appropriate vaccination strategies and use.

Pima County Health Department's Vaccine Preventable Disease/Immunization Program acts as the coordinating center for all federal and state-wide purchased vaccine and for its storage, deployment and use. Vaccine is routinely shipped from a distribution center to the provider office, usually within one to two weeks after the order is placed. Should there be an emergency need for vaccine; the requested amount will be shipped on the next scheduled shipping day.

The targeted use of antiviral agents could, as part of a response strategy, decrease the health impact of an influenza pandemic. Use of antiviral prophylaxis has been 70% to 90% effective in preventing symptomatic influenza infection caused by susceptible strains if prophylaxis is begun before exposure to influenza. Also, treatment with one class of agents, neuraminidase inhibitors, has been shown to decrease severe complications such as pneumonia and bronchitis, and to reduce hospitalizations. These interventions may be particularly important before vaccine is available and for those in whom vaccine may be medically contraindicated.

3.8 Provision of Vaccine and Antiviral Medications to Population in Pima County

Once vaccine or antiviral medications have been procured in supplies sufficient enough to provide for the population of the county, the vaccine and/or antiviral medication shall be given to the public via of Points of Dispensing (POD's) as described in the Pima County Strategic National Stockpile Plan. Vaccine and/or antivirals received by Pima County shall also be provided to residents of the Sovereign Indian Nations within Pima County by POD's operated by these communities.

Since all or most of the population will be susceptible to infection with the pandemic strain, vaccination of the entire Pima County population may be recommended. Once vaccine becomes available, supplies will be limited. Several options exist regarding purchase and distribution of pandemic influenza vaccine.

Currently, approximately 90 million Americans are vaccinated against influenza each year. Increasing the proportion of public sector purchase for a pandemic may improve the ability to target priority groups and to reach those who may be underserved by the current system. Related to, but separate from, the approach to purchasing vaccine is the decision regarding how vaccine will be administered. Private sector providers with experience in vaccine administration, under contract to state of Arizona and Pima County Health Departments, will serve an important role in receiving and administering vaccine. Systems to monitor vaccine delivery have been developed by the Vaccine Preventable Disease/Immunization Program, in order to assess whether available doses are being delivered to targeted groups; whether racial/ethnic disparities exist in coverage; and whether two doses are being given if a multi-dose schedule is needed for protection. Pima County Health Department's vaccine controller (Immunization Manager) will serve as the advisor to other office staff on how to properly receive and store a vaccine shipment. Epidemiological studies will be implemented to assess vaccine effectiveness in preventing disease, as well as complications and vaccine safety. Annual studies to rapidly assess vaccine effectiveness against influenza should be implemented in the inter-pandemic period to build the capacity to collect these data during a pandemic.

Given the limited supply, prophylaxis should be limited to those who are supporting the goal of maintaining quality public safety, providing critical response capacity, and other essential public health services during an influenza pandemic. Target groups, to be defined by the Pima County Health Department Chief Medical Officer, might include front-line health care workers, public health personnel, those who provide essential community safety services, workers culling influenza-infected animals, and those persons involved in influenza vaccine deployment or immunizations that are at greatest risk of exposure. Since additional supplies of antiviral prophylaxis remain in the private sector and within hospital pharmacies, Pima County Health Department has collaborated with these health care organizations and providers to assure that these drugs are used timely and effectively in the event of a pandemic. Coordination and education also are important because use of amantadine and rimantadine for therapy may induce high rates of antiviral resistance, this diminishing their usefulness. The logistical issues of getting therapy to identified priority groups who are within 48 hours of the onset of symptoms, the time in which the impact of treatment has been documented, are addressed in the Pima County Health Department Emergency Response Plan and Mass Dispensing Clinic Annex.

Table 3 outlines vaccine priority group recommendations from the Department of Health and Human Services that may be used by Pima County Health Department in the event of Pandemic Influenza.

Table 3: DHHS Vaccine Priority Group Recommendations

Tier	Sub-Tier	Population	Rationale
1	A	Vaccine and antiviral manufactures and others essential to manufacturing and critical support (~40,000) Medical workers and public health workers who are involved in direct patient contact, other support services essential for direct patient care, and vaccinators (8-9 million)	Need to assure maximum production of vaccine and antiviral drugs Healthcare workers are required for quality medical care (studies show outcome is associated with staff-to-patient ratios.) There is little surge capacity among healthcare sector personnel to meet increased demand
	B	Persons \geq 65 years with 1 or more influenza high-risk conditions, not including essential hypertension (approx. 18.2 million) Persons 6 months to 64 years with 2 or more influenza high-risk conditions, not including essential hypertension (approx. 6.9 million) Persons 6 months or older with history of hospitalization for pneumonia or influenza or other influenza high-risk condition in the past year (740,000)	These groups are at high risk of hospitalization and death. Excludes elderly in nursing homes and those who are immuno-compromised and would not likely be protected by vaccination
	C	Pregnant women (approx. 3 million)	In past pandemics, pregnant women have been at high risk; vaccination will also protect the infant
Tier	Sub-Tier	Population	Rationale
1	C	Household contacts of severely immuno-compromised persons who would not be vaccinated due to likely poor response to vaccine (1.95 million with transplants, AIDS, and incident cancer x 1.4 household contacts per person = 2.7 million persons)	Vaccination of household contacts of immuno-compromised and young infants will decrease risk of exposure and infection among these who cannot be directly protected by vaccination
	D	Public health emergency response workers critical to pandemic response (assumed one-third of estimated public health workforce=150,000) Key government leaders	Critical to implement pandemic response such as providing vaccinations and managing/monitoring response activities Preserving decision making capacity also critical for managing and implementing a response
2	A	Healthy 65 years and older (17.7 million)	Groups that are also at increased risk but not as high risk as in Tier 1B

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	<p>6 months to 64 years with 1 high-risk condition (35.8 million)</p> <p>6-23 months old, healthy (5.6 million)</p>	
B	<p>Other public health emergency responders (300,000 = remaining two thirds of public health work force)</p> <p>Public safety workers including police, fire, 911 dispatchers, and correctional facility staff (2.99 million)</p> <p>Utility workers essential for maintenance of power, water, and sewage system functioning (346,000)</p> <p>Transportation workers transporting fuel, water, food, and medical supplies as well as public ground transportation (3.8 million)</p> <p>Telecommunication/IT for essential networks operations and maintenance (1.08 million)</p>	<p>Includes critical infrastructure groups that have impact or maintaining health (e.g. public safety or transportation of medical supplies and food); implementing a pandemic response; and on maintaining societal functions</p>
3	<p>Other key governmental health decision makers (estimated number not yet determined)</p> <p>Funeral directors/embalmers (62,000)</p>	<p>Other important societal groups for a pandemic response but of lower priority</p>
4	<p>Healthy persons 2-64 years not included in above categories (179.3 million)</p>	<p>All persons not included in other groups based on objective to vaccinate all those who want protection</p>

3.9 Prevention, Education and Media Outreach

Pima County Health Department Public Information Officers shall work with ADHS to ensure that there is a consistent and coordinated effort to provide public health messaging. Local efforts will include a concerted effort to contact “hard to reach” and/or special populations. Press briefings shall be held, and the content of such briefings shall be coordinated through the State, Pima County Office of Emergency Management and Homeland Security, and Pima County Health Department.

3.10 Hospital and Healthcare Coordination

Pima County Health Department shall coordinate with the local healthcare facilities and medical societies to seek assistance from the State to respond to surge capacity issues, including staff, beds, ventilators and other equipment needs. In addition, Pima County Office of Emergency Management and Homeland Security and Health Department shall assist with the development of pre-hospital triage protocols, mass casualty issues including victim identification and morgue operations (e.g., storage, reception, disposal), Quarantine sites (community reception & care centers), and temporary hospitals.

3.11 Behavioral Health Plan

Pima County Health Department has coordinated various opportunities for partners in behavioral health counseling to organize efforts in the event of an emergency/disaster. Most recently, the faith-based community was engaged in a training conference for the identification of facilities services and volunteer groups that may be recalled and utilized during an influenza pandemic.

3.12 Volunteer Management

Pima County Health Department maintains a volunteer management plan that encompasses all aspects of recruiting, recalling, and managing volunteers. This plan annexes the Pima County Health Department All-Hazards Public Health Emergency Response and Recovery Plan and can be accessed through the PCHD emergency planning or volunteer coordinators.

3.13 Security

Coordination of security at all critical medical care delivery sites (e.g., acute care centers and hospitals, patient triage centers and dispensing facilities), locations where medications and equipment are stored or delivered will be arranged through the Pima County Office of Emergency Management and Homeland Security. Local Law Enforcement will also provide security and traffic control at critical sites such as bridges, airports, train stations, County borders, if necessary. The primary law enforcement agency charged with security at Pima County Health Department functions is the Pima County Sheriffs Department.

3.14 Personal Preparedness

Materials for Pima County Health Department staff have been developed and will be distributed as appropriate for the specific disease threat. These protocols have been developed by Pima County Health Department Disease Control staff, in conjunction with current treatment guidelines, input from CDC staff and other disease experts. They include recommended 72-hour home emergency kit information, and instructions for special populations such as children, pregnant women, immuno-suppressed individuals and individuals with drug allergies.

3.15 Strategies for Continuity of Government

Each division/program under the Pima County Health Department is responsible for the development and maintenance of a program specific Continuity of Operations Plan (COOP). These plans are implemented when events result in a significant reduction in personnel due to natural or manmade events such as pandemic illness or injury, or in the event of the loss of workplace environment, equipment or supplies. Activation of a program's COOP will be dependent on the severity of the event, the extent to which the program is affected and the need to support other Pima County Health Department essential functions. These plans annex the Pima County Health Department All-Hazards Public Health Emergency Response and Recovery Plan and can be accessed through the PCHD emergency planning coordinator.

SECTION FOUR: PANDEMIC INFLUENZA RESPONSE AND COMMUNICATIONS

4.1. PLANNING FOR INFLUENZA PANDEMIC

Federal and State public health and medical assistance during major emergencies and disasters are provided for under Emergency Support Function (ESF) #8 of the Pima County Emergency Response and Recovery Plan, or independently by Arizona Department of Health Services. This assistance can be activated by a Governor declared state of disaster or emergency, by declaration of a public health emergency through the Director of either the Pima County Health Department or Arizona Department of Health Services, or at the request of another State or Federal Department or Agency. When incident demands severely challenge or exceed the response capability of Pima County, Federal resources such as the Strategic National Stockpile (SNS) may be called on to provide additional capacity and capabilities. If this occurs, Federal agencies and resources function in support of the State, Tribal and local response efforts. Federal public health and medical assistance may come in the form of medical materiel, personnel, or technical assistance. These resources may provide response capabilities for the triage, treatment, and transportation of victims, infection control, mental health counseling, and other emergency response needs.

4.2 INTER-PANDEMIC PERIOD (PHASES 1 AND 2)

Phase 1 Definition: *No new influenza virus subtypes have been 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 to be low.*

Phase 2 Definition: *No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.*

Surveillance (Primary Responsibility of: **Epidemiology Program**)

- Explore options for increasing specimen collection from sentinel sites, outbreaks, unusual cases, etc.
- Assess laboratory surge capacity and safety issues relating to a pandemic influenza virus.
- Educate health care providers on disease-based surveillance and virologic surveillance activities.
- Estimate Pima County's morbidity and mortality rates resulting from potential flu pandemics.
- Identify sites for active surveillance and guidelines for when to activate active surveillance.
- Explore animal surveillance to supplement surveillance information.
- Explore additional surveillance systems to enhance influenza surveillance (hospital admissions data, hospital discharge data, etc.).
- Investigate methods to obtain timely influenza mortality data from Pima County and/or state vital statistics; establish routine surveillance to identify influenza-associated deaths.
- Establish and maintain contacts with influenza and immunization coordinators in neighboring counties.

Vaccine and Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

- Review distribution plan for vaccine, antibiotics and antivirals, specifically addressing the possibility of limited supplies and the need for security.
- Establish priorities for target groups based on prophylaxis versus therapy (in conjunction with Chief Medical Officer).
- Address possibility of adverse reactions, emergence of drug-resistant viral strains and liability issues.
- Develop supply list and establish agreement with commercial companies to obtain those supplies on short notice.
- Develop consultation and training guidelines for the handling and administration of pharmaceuticals or vaccine during an emergency.
- Plan for allocation of limited vaccine and antiviral prophylaxis during pandemic.

Emergency Response (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Review and update plans regularly.
- Continue training of specific ICS roles.
- Assess ability to rapidly transport specimens to the ADHS laboratory.
- Develop plan for monitoring hospital capacity and diversions.
- Conduct inventory of critical equipment, including, but not limited to, availability of antiviral and antibiotic pharmaceuticals, refrigerated depots for vaccines, and transport for delivery of vaccines.
- Review SNS protocol for requesting supplies of antiviral/antibiotics/vaccine in the event that state supplies become exhausted.

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Establish 24-hour information line and call center protocol for use during pandemic, available in both English and Spanish.
- Include development of template messages and press releases for use during a pandemic.
- Update key public influenza messages.

4.3 PANDEMIC ALERT PERIOD (Phases 3, 4, and 5)

Phase 3 Definition: *Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.*

Surveillance (Primary Responsibility of: **Epidemiology Program**)

Surveillance operations from the inter-pandemic period will continue, and the following will be implemented:

- Notify Influenza-Like Illness (ILI) surveillance partners to be prepared to send reports.
- Monitor surveillance reports from CDC and WHO and enact recommendations.
- Ensure that representative and unusual viral isolates are sent to ADHS for appropriate testing.
- Request that providers enhance surveillance for specific epidemiological factors (e.g. travel to affected areas) among persons with influenza or ILI.
- Ensure timely and comprehensive reporting of ILI from sentinel sites.
- Formulation of recommendations and the provision for isolation and quarantine

Vaccine/Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

- Remain ready for the possibility of a novel virus alert which could progress to the pandemic alert stage.

Emergency Response (Primary Responsibility of: **Bioterrorism Preparedness Program**)

- Prepare for possible activation of Pima County Health Department's ICS structure.
- Assure testing of communication systems.
- Prepare for potential for isolation and quarantine activity.
- Work with airport or appropriate agencies to develop screening plan for later use.

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

Ensure internal communication between Bioterrorism Preparedness, Epidemiology and Disease Control, Vaccine Preventable Diseases/Immunizations, Emergency Management, Public Health Nursing and others involved in surveillance programs and emergency management.

- Monitor information from CDC and ADHS offices to determine national response and recommended messages regarding vaccine supply, antiviral use, prevention methods, and maintenance of essential services.
- Ensure communication of information to Health Department Director, Health Department Administration, local tribal contacts, local hospital contacts, border health liaisons, the Pima County Office of Emergency Management and Homeland Security, and other stakeholders as deemed necessary.
- Develop press release, fact sheet, call center scripts, and Q&A templates.

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Phase 4 Definition: *Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.*

Surveillance (Primary Responsibility of: **Epidemiology Program**)

Surveillance operations listed above will continue, and the following will be implemented:

- Request that surveillance partners (hospitals, sentinel providers, clinical laboratories) increase specimen collection.
- Screen travelers (via airplane, bus, or train) arriving from influenza-affected areas for ILI.
- Enhance surveillance, including obtaining demographic data on clusters, travelers, or unusual cases.
- Obtain CDC guidelines/statements and distribute to partners.
- Increase influenza laboratory testing for persons with compatible clinical syndromes at emergency departments or among hospitalized cases.
- Investigate any influenza outbreaks and increases in ILI.
- Consider instituting active surveillance (e.g. school absenteeism; number of patients on ventilators; number of deaths due to respiratory illness; contacting hospitals, emergency departments, clinics, labs that test for influenza; use of SARS self-screening tools).

Vaccine/Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

- Maintain contact with CDC and ADHS for information on plans for vaccine manufacture.
- Prepare to implement plan for storing and delivering vaccine as it becomes available to Pima County Health Department.
- Plan for using VFC distribution system for VFC eligible children.
- Obtain latest ADHS recommendations for priority groups for vaccine allocation and modify as necessary based on current surveillance data and vaccine availability projections.
- Meet with Arizona Pharmacy Board and Tucson MMRS Pharmacy Task Force to discuss potential need to: (1) increase antiviral and anti-microbial supplies; and (2) increase role of pharmacists and other approved personnel in vaccine delivery.
- Request that sentinel providers activate Influenza-Like Illness (ILI) surveillance system, if not already operating.

Emergency Response (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Depending on geographic area affected, the Pima County Health Department will begin to solidify roles assigned in ICS
- Ensure adequate Personal Protective Equipment for Health Department first responders and disease investigators.
- Plan for the establishment of a Health Department Operations Center.
- Review elements of plan for vaccine delivery with hospital and healthcare partners and stakeholders.
- Ensure that volunteer resources, equipment and plans for mass immunization clinics are in place.
- Review SNS protocol, conduct necessary activities as prescribed in protocol. (See Strategic National Stockpile Plan Annex).

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

Ensure internal communication between Public Health Emergency Preparedness, Epidemiology and Disease Control, Vaccine Preventable Diseases/Immunizations, Emergency Management, Public Health Nursing and others involved in surveillance programs and emergency management.

- Monitor information from CDC and ADHS offices to assess national response.
- The PIO, Director, and Chief Medical Officer will decide how to coordinate with the media and what level of regular briefing needs to occur.
- Prepare fact sheets detailing responses to questions from the media and the public. Assess need for press release to disseminate information.

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- If needed, ADHS will issue a travel alert; PIO will notify the Arizona Office of Tourism, Chambers of Commerce, and others to insure widespread notification of this information.

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Phase 5 Definition: *Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be full transmissible (**substantial pandemic risk**)*

*** Note*:** At this point in the response, each program manager within the Division of Disease Control will address staffing needs should health department operations need to continue on a 12 to 24 hour basis. In this event, personnel may need to begin shift work.

Surveillance (Primary Responsibility of: **Epidemiology Program**)

Surveillance operations listed in above phases will continue, but will be coordinated under the Surveillance Group within the Pima County Health Department ICS structure (as ICS will be activated), and the following will be implemented:

- Maintain epidemiological and laboratory surveillance as described above.
- Analyze data from laboratory reporting, outbreaks, clusters, travelers, hospitals, etc., to identify population groups at greatest risk and inform possible prioritization of vaccine or antivirals.
- Consider special studies to describe unusual clinical syndromes, or vaccine or prophylaxis efficacy.
- Disseminate surveillance data to Influenza Like Illness (ILI) sentinel sites and healthcare providers.

Vaccine/Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

- Continue activities as listed in pandemic alert stage, including meetings with Tucson MMRS Pharmacy Task Force.
- If vaccine delivery date is predicted by CDC, Pima County Health Department Immunization Program will work with local hospitals and healthcare providers to; (1) Provide expected date vaccine is predicted to be available, (2) Review distribution plan and update when new information is available, (3) Obtain signed agreements with private providers on priority order of groups to receive vaccine when supply is limited, (4) Address the need for security at immunization sites and vaccine transportation, and (5) Address the need for reporting adverse events to VAERS.
- Obtain inventory data on antiviral and anti-microbial supplies.
- Prepare or update recommendations and plans for allocation of antiviral and anti-microbial supplies.

Emergency Response (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Activate ICS, open Health Department Operations Center (HDOC) to accommodate personnel to manage the incident.
- Review and enhance Pandemic Influenza Plans.
- Review SNS protocol, conduct necessary activities as prescribed in protocol. (See Strategic National Stockpile Plan Annex).

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Activate Joint Information System (JIS) and work with IT resources, procurement groups, and Emergency Management in the Logistics and Finance Sections, respectively, to identify and prepare necessary logistical support on media relations and other communication activities, including: computers, phones, fax machines, Internet and modem connections, and other necessary hardware/software. The physical location of the JIS is 130 West Congress in the Board of Supervisors conference room.
- Identify the Incident Commander and assemble the Pima County Health Department Executive Planning Committee.
- Update documents, fact sheets, Website and Information line with current surveillance information. Ensure all information is translated into Spanish in timely manner.
- Provide resources for those within the public seeking information and assistance, possibly through the establishment of the Pima County Health Department Call Center.

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- Develop and implement health education campaign for influenza including the following: signs/symptoms of influenza, importance of hand-washing, avoiding infection, quarantine, checking on family members living alone, vaccination clinic locations, vaccine safety and storage using the Pima County Health Department Information line number, Department website and possibly the Pima County Health Department Call Center.

4.4 PANDEMIC PERIOD (Phase 6)

Phase 6 Definition: *Increased and sustained transmission in general population.*

Surveillance (Primary Responsibility of: **Epidemiology Program**)

- Surveillance systems will likely be overwhelmed. Surveillance activities described above will continue to the extent possible while diverting personnel to the highest-priority activities.
- Continue to monitor data received, and use data to establish or reassess vaccine priority groups.
- Analyze morbidity and mortality data to establish age and geographic area-specific rates.
- Continue to monitor CDC and ADHS reports for guidance and surveillance information.
- Review surveillance data for changes in risk factors that could require modification of recommendations for priority groups for receiving vaccine.

Vaccine/Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

Continue all pandemic imminent activities. Vaccine may or may not be available for a sizable proportion of the County's population.

- Monitor Vaccine Adverse Event Reporting System (VAERS) data for evidence of adverse reactions to the influenza vaccine.
- Modify recommendations and agreements on priority groups for receiving the vaccine to reflect greater availability of vaccine.
- Purchase vaccines and/or antiviral agents as they become available, if not provided by the federal government.
- Monitor availability of antivirals and, when appropriate, recommend changes in priority groups for receiving vaccine or antivirals.
- Order and handle antiviral medication prescriptions.
- Distribute and track inventory of vaccine and/or antiviral agents as they become available.
- Assess antiviral/antibiotic/vaccine needs, conduct necessary activities as prescribed in SNS protocol (See Strategic National Stockpile Plan Annex).

Emergency Response (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Ensure adequate Personal Protective Equipment for Health Department first responders and disease investigators.
- Request health care workers from other institutions if necessary.
- Respond to Governor's possible declaration of state of emergency, subsequent activation by Arizona Department of Emergency Management of State Emergency Operations Center (SEOC) and Pima County Office of Emergency Management and Homeland Security Emergency Operations Center.
- Activate Public Health ICS to full capacity.

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Notify the Department Director, event incident commander, executive planning committee and other stakeholders of Pandemic Stage.
- Continue information flow to local hospitals, healthcare providers, and other stakeholders.
- Update documents, fact sheets, Web site, Department Information line and Department Call Center scripts with current surveillance information. Ensure all information is translated into Spanish in timely manner.
- Provide press briefings and issue press releases as outlined in Pandemic Alert Stage.
- Continue health education campaign to keep ill persons at home, providing translations into Spanish.
- Disseminate written daily briefings, at minimum, to media about state and local efforts.

4.5 PANDEMIC POST PEAK PERIOD OPERATIONS AND COMMUNICATION

NOTE: The following guidance is based on World Health Organization Pandemic Influenza Phases established in 1999. Although new phases (established 2009) end at Pandemic Phase, the following will serve as a guide of recommended actions in the event of a second wave of Pandemic Influenza.

End of First Wave/Pandemic Second Wave Definition: *Substantial decreases in the morbidity of initial cases, Confirmation of a second or later wave caused by the same novel virus strain.*

Surveillance (Primary Responsibility of: **Epidemiology Program**)

It is important to maintain surveillance even after the initial decline in new cases. This should include at least the following functions:

- Reporting of influenza-like illness (ILI) at sentinel health care facilities.
- Laboratory reporting of influenza.
- Testing of respiratory specimens submitted to the state laboratory for influenza testing and strain sub-typing of isolates.
- Reporting of unusual events or changes in activity levels by infection control practitioners, infectious disease practitioners, medical examiners or other groups.
- Passive reporting of influenza or ILI outbreaks by schools, long-term care facilities, or other institutions.

Vaccine and Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

- Continue immunization efforts in lower risk groups as vaccine becomes available.
- Conduct necessary inventory activities as prescribed in SNS protocol (See Strategic National Stockpile Plan Annex).

Emergency Response (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Activation of ICS may continue or reconvene depending upon severity of the secondary outbreak.

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Communication actions and methods will continue as described above and information disseminated will depend upon emerging second wave.

4.6 POST PANDEMIC PERIOD

***NOTE*:** The following guidance is based on World Health Organization Pandemic Influenza Phases established in 1999. Although new phases (established 2009) end at Pandemic Phase, the following will serve as a guide of recommended actions at the end of any pandemic event.

End Pandemic Phase Definition: *Confirmation that the pandemic has ended.*

Surveillance (Primary Responsibility of: **Epidemiology Program**)

- Surveillance will return to inter-pandemic activities to the extent possible.

Vaccine and Pharmaceutical Delivery (Primary Responsibility of: **Immunization Program**)

- Activities will return to inter-pandemic activities to the extent possible.

Emergency Response (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Once influenza pandemic has been declared over, staff will participate in after-action reviews as necessary.
- The Department will conduct the after-action review and report, so that lessons learned and potential weaknesses in response may be identified.
- Step-down from Pandemic Phase – This plan remains in effect until the Pima County Health Department Director or Incident Commander determines it is time to step down (i.e., de-activate ICS).

Communications (Primary Responsibility of: **Public Health Emergency Preparedness Program**)

- Communicate to the media and public that the pandemic is over

SECTION FIVE: SUMMARY OF KEY ACTIONS

Pandemic influenza response activities differ by pandemic period phase. In addition, activities may differ depending on where disease is occurring during the early phases of a pandemic – either in the U.S. or in other countries – and by the characteristics of the influenza virus, particularly the efficiency with which it spreads between people. Therefore, the following summary should primarily serve as a conceptual reference or guideline to action steps. Because an influenza pandemic is likely to unfold in unanticipated ways, decision-makers must continually reassess recommendations for response activities. Preparedness activities, undertaken during the inter-pandemic period are described in the previous section of this Plan.

Inter-Pandemic Period

Phase 1: No new influenza virus subtypes have been 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.

Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

Key actions: The Inter-Pandemic Phase 1 describes normal operating procedures for surveillance, vaccine and pharmaceutical delivery/deployment and communications during the typical influenza season.

Novel virus alerts occurred in 1997, 1999, 2003, and 2004 with avian influenza viruses causing human disease, along with widespread infections among domestic poultry. At this pandemic phase, highest priority actions are enhanced U.S. (local and state) and international surveillance to identify cases and monitor the spread of disease, epidemiological investigation, collaboration with hospitals and healthcare partners to control focal disease outbreaks, vaccine development for the novel influenza virus strain, and continued planning/preparedness.

Pandemic Alert Period

Phase 3: Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

Key Actions: In a pandemic alert the most critical issue in assessing the potential for a pandemic is determining the efficiency with which the influenza strain is transmitted between people. Response activities undertaken during this phase/level are likely to be different depending on whether the focus for disease outbreak(s) is in the U.S. or in another country. If the outbreak is outside the U.S., important activities could include participating in the international investigation of the disease epidemiology; contributing personnel and materials (e.g., personal protection equipment, vaccine, or antiviral drugs) to support control activities implemented by affected countries and international organizations; and enhancing surveillance and implementing control activities at points-of-entry into the U.S. If the disease outbreak that defines this phase/level occurs in the U.S., implementing control strategies; enhancing surveillance to detect whether disease has spread; and accelerating vaccine development and assuring antiviral supply become the highest priorities.

As in the previous phase/level, assessment of the efficiency of person-to-person spread of the novel influenza strain is important to evaluate the potential for a pandemic. Transmission dynamics of influenza may change as strains re-assort making ongoing monitoring important. Understanding the spread of

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infection is also critical to development of appropriate containment strategies. Other key factors to assess include the severity of influenza caused by the novel strain, the populations and age groups that are most affected and most likely to experience severe morbidity and mortality, and antiviral susceptibilities. As in the previous level/phase, the intensity and type of response activities will differ based on whether disease is occurring in the U.S.

Pandemic Period

Phase 6: Increased and sustained transmission in general population.

Key Actions: At this phase, the pandemic will have spread to the U.S. and communities will begin experiencing outbreaks and epidemic disease. It is assumed that, at this point, the pandemic strain will be well transmitted between people, including from infected persons to others even before the onset of clinical symptoms, as occurs with annual influenza disease. During outbreaks, local community health care resources, both human and material, are likely to be severely stressed or overwhelmed, depending on the effectiveness of preparedness activities and development of surge capacity. It is likely to be difficult to shift resources within or between healthcare agencies because multiple areas will be affected simultaneously, and areas not yet affected will anticipate the spread of disease. Because of their limited availability, it is likely that there will be increased demand for antiviral drugs in both the public and private sectors. When vaccine becomes available it will be in short supply relative to demand. Critical response issues at this phase include the ability to maintain healthcare within communities; the ability to effectively communicate and implement priorities for antiviral drug and vaccine use; the ability to distribute and administer vaccine effectively and equitably; and the ability to evaluate and modify control strategies based on epidemiological investigation and surveillance data.

The first pandemic wave is likely to taper off as environmental conditions change. This hiatus in pandemic disease may allow recovery to occur in communities and within the healthcare system. At the same time, pandemic vaccine production will continue and vaccine be administered to decrease susceptibility for the next pandemic wave. Supplies and pharmaceutical stockpiles should be replenished. Also important will be a review of the effectiveness of control strategies and modification of these recommendations, if needed.

Based on past experience, a second wave of outbreaks may occur within 3-9 months of the initial epidemic. Subsequent waves are likely to be less severe because a large portion of the population will be less susceptible having had disease or having been vaccinated during the previous season. Vaccine supply is likely to be greater given ongoing production and higher yields as manufacturers optimize methods. This greater supply may lead to different strategies for vaccination, possibly including greater reliance on delivery by private sector healthcare providers. Specific response activities implemented during Phase 4 will be similar to those in Phases 1 and 2.

Decreased susceptibility to the pandemic virus and continued changes in the influenza virus result in the end of the pandemic and return to the inter-pandemic phase. An official declaration will be made by the World Health Organization or Centers for Disease Control. As in Phase 3, key activities at this phase include review of the pandemic response and incorporation of lessons learned into the pandemic influenza preparedness and response plan to guide planning activities for the next pandemic.

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Response Activity Supplements

All state, local, and tribal governments must be prepared to detect the earliest cases of pandemic influenza infection and disease, to minimize illness and morbidity, and to decrease social disruption and economic loss. Specific guidance and recommendations for pandemic influenza preparedness for state, local and tribal governments are detailed in eleven supplements provided in the US Department of Health and Human Services' Pandemic Influenza Plan. The following summarizes key actions of the eleven supplements.

Supplement 1: Surveillance and Epidemiology

Arizona's influenza surveillance system, which monitors influenza activity in the state, will provide the surveillance data needed to guide response efforts during a pandemic. Supplement 1 provides a summary of influenza surveillance activities conducted during normal influenza seasons as well as proposed enhancements to surveillance that would be implemented in the event of a pandemic.

Period	Primary Actions
Interpandemic/Pandemic Alert	Virologic surveillance during interpandemic influenza season Disease surveillance during interpandemic influenza season Surveillance for novel strains of influenza during the Pandemic Alert Period Veterinary Surveillance Preparedness planning for virologic and disease surveillance during a pandemic Management of patients infected with novel strains of influenza and their contacts
Pandemic	Enhanced surveillance Scaled-back surveillance

Supplement 2: Laboratory Diagnostics

The State of Arizona public health laboratory is a critical component of the overall public health response to an influenza pandemic. The capability of differentiating common influenza from pandemic influenza depends upon the rapid detection and characterization that is available only at public health laboratories. Supplement 2 identifies the role of clinical and hospital laboratories and the State Public Health Laboratory as well as recommended activities.

Period	Primary Actions
Interpandemic/Pandemic Alert	Laboratory support for seasonal influenza surveillance Laboratory testing for novel influenza subtypes Laboratory planning to support the response to an influenza pandemic
Pandemic	Laboratory support for disease surveillance Laboratory support for clinicians Biocontainment procedures Occupational health issues for laboratory workers

Supplement 3: Healthcare Coordination and Surge Capacity

The healthcare system in Pima County will experience significant strains on its resources during a pandemic. Supplement 3 describes the planning and actions necessary for the provision of care in hospitals and other healthcare settings including surge capacity and mortuary issues.

Period	Primary Actions
Interpandemic/Pandemic Alert	Provision of care in hospitals Provision of care in non-hospital settings
Pandemic	Activating the facility's influenza pandemic response plan

Supplement 4: Infection Control

The ability to limit transmission of the influenza virus in healthcare settings will rely heavily on the appropriate and through application of infection control measures. Supplement 4 provides guidance to healthcare and public health partners on the basic principles of infection control including personal protective equipment for limiting the spread of pandemic influenza.

Primary Information and Recommendations:

- Basic infection control principles for preventing the spread of pandemic influenza in healthcare settings
- Management of infectious patients
- Infection control practices for healthcare personnel
- Occupational health issues
- Reducing exposure of persons at risk for complications of pandemic influenza
- Healthcare setting specific guidance
- Care of pandemic influenza patients in the home
- Care of pandemic influenza patients at alternative sites
- Infection control in schools and workplaces
- Infection control in community settings

Supplement 5: Clinical Guidelines

The role of clinical guidelines magnifies itself during a pandemic from its use during a normal influenza season but involves the same components. Early identification and appropriate medical intervention are essential. Supplement 5 focuses on the initial screening, assessment and management of patients who represent from the community with fever and/or respiratory symptoms during the pandemic periods.

Period	Primary Actions
Interpandemic/Pandemic Alert	Criteria for evaluation of patients with possible novel influenza Initial management of patients who meet the criteria for novel influenza Management of patients who test positive for novel influenza Management of patients who test positive for seasonal influenza Management of patients who test negative for novel influenza
Pandemic	Criteria for patients with possible pandemic influenza Initial management of patients who meet the criteria for pandemic influenza Clinical management of pandemic influenza patients

Supplement 6: Vaccine Distribution and Use

Before an influenza vaccine that is effective against the circulating pandemic virus strain is made available, criteria for its use must be established based upon scientific information as well as projections of available supply. Supplement 6 provides actions and recommendations to state and local partners and other stakeholders on planning for the different elements of a pandemic vaccination program.

Period	Primary Actions
Interpandemic/Pandemic Alert	Vaccination against seasonal influenza virus strains Preparedness planning for vaccination against a pandemic influenza virus
Pandemic	Before vaccine is available When vaccine becomes available

Supplement 7: Antiviral Drug Distribution and Use

Appropriate use of antivirals during an influenza pandemic may reduce morbidity and mortality and diminish the overwhelming demands that will be placed on the healthcare system. Supplement 7 provides recommendations to state and local partners and to healthcare providers in Arizona on the distribution and use of antiviral drugs for treatment and prophylaxis during an influenza pandemic.

Period	Primary Actions
Interpandemic/Pandemic Alert	Use of antivirals in management of cases of novel influenza Preparedness planning for use of antivirals during a pandemic
Pandemic	When pandemic influenza cases are reported abroad, or sporadic pandemic influenza cases are reported in the United States without evidence of spread When there is limited transmission of pandemic influenza in the United States When there is widespread transmission of pandemic influenza in the United States

Supplement 8: Community Disease Control and Prevention

For the purposes of this response plan, "Isolation" refers to the separation of an individual with influenza from non-infected individuals. "Quarantine" refers to the separation of an individual or individuals exposed to influenza from non-infected and non-exposed individuals. As the phases of an influenza pandemic progress, use of quarantine to suspend transmission may have limited success and broader community containment measures may be utilized. Supplement 8 defines and lists strategies and activities for implementation of community containment measures to be used during a pandemic. Supplement 8 also contains legal preparedness templates.

Period	Primary Actions
Interpandemic/Pandemic Alert	Community preparedness for implementation of pandemic influenza containment measures Containment of small clusters of infection with novel strains of influenza
Pandemic	Containment measures for individuals Community-based containment measures

Supplement 9: Managing Travel-Related Risk of Disease Transmission

In a world of modern air travel and a relatively short incubation period of the influenza virus disease spread will likely be rapid during an influenza pandemic. Supplement 9 details travel-related containment strategies and activities to be used during different phases of an influenza pandemic.

Period	Primary Actions
Interpandemic/Pandemic Alert	Preparedness for implementation of travel-related containment measures Health information for travelers Evaluation of travel-related cases of infection with novel strains of influenza
Pandemic	Preventing the importation of infected birds and animals Travel-related containment measures De-escalation of travel-related control measures

Supplement 10: Public Health Communications

Solid tools and approaches of proven risk communication methods are an essential component to education and action by all affected during an influenza pandemic. The overarching goal of the Communications Strategy is to provide timely, accurate and pertinent information to the public and other stakeholders. Supplement 10 covers education and information dissemination to the general public, healthcare providers, response agencies and organizations, community leaders, and other groups of individuals.

Period	Primary Actions
Interpandemic/Pandemic Alert	Assessing communication capacity and needs Conducting collaborative planning Developing and testing standard state and local procedures for disseminating information Developing, testing and disseminating locally tailored Interpandemic messages and materials
Pandemic	Activating emergency communications plans Refining and delivering messages Providing timely, accurate information Providing coordinated communications leadership across jurisdictional tiers (e.g. local, regional, state, national) Promptly addressing rumors, misperceptions, stigmatization and unrealistic expectations about the capacity of public and private health providers

Supplement 11: Workforce Support: Psychosocial Considerations and Information Needs

The response to an influenza pandemic will pose substantial physical, personal, social and emotional challenges to healthcare providers, public health officials and other essential service workers. Supplement 11 addresses the psychological and social (“psychosocial”) needs of the occupational groups that will participate in the Arizona response to an influenza pandemic.

Period	Primary Actions
Interpandemic/Pandemic Alert	Institutionalizing psychosocial support systems Preparing workforce support materials Developing workforce resilience programs
Pandemic	Delivering psychosocial support services Providing information to responders Implementing workforce resilience programs

Supplement 12: Influenza Pandemic Information Management

Public Health Informatics is the systemic study of information in the public health system. Specifically, how it is captured, retrieved and used in making decisions as well as the tools and methods used to manage this information and support decisions. Supplement 12 describes the role and activities for informatics systems that support surveillance, vaccine and pharmaceutical delivery, emergency response and communications needs during an influenza pandemic.

Period	Primary Actions
Interpandemic/Pandemic Alert	Enhance and continue use of electronic surveillance systems Maintain public information Conduct inventory of all equipment and information gathering/tracking systems Test alerting and communications systems
Pandemic	Prepare for Health Emergency Operations Center operations Use of event-specific collaborative communication portals Activate identified volunteers Maintain communication of Health Emergency Operations Center with State Emergency Operations Center Continue use of Health Alert Network notifications and communications

Supplement 13: Guidance for County and Tribal Health Departments

Supplement 13 is a guidance document designed to assist county and tribal health departments in detailing the local health responsibilities during an influenza pandemic in accordance with the Arizona Influenza Pandemic Response Plan.

LIST OF WEBSITE RESOURCES

This plan is based upon planning initiatives previously accepted by the United States Department of Health and Human Services and the Arizona Department of Health Services.

ARIZONA DEPARTMENT OF HEALTH SERVICES
Bureau of Emergency Preparedness and Response
State of Arizona Pandemic Influenza Response Plan
[HTTP://WWW.AZDHS.GOV/PHS/EDC/EDRP/INDEX.HTM](http://www.azdhs.gov/phs/edc/edrp/index.htm)

UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES
Pandemic Influenza Response and Preparedness Plan
[HTTP://WWW.DHHS.GOV/NVPO/PANDEMICPLAN/](http://www.dhhs.gov/nvpo/pandemicplan/)

CENTERS FOR DISEASE CONTROL AND PREVENTION
Information for Healthcare Professionals
[HTTP://WWW.CDC.GOV/FLU](http://www.cdc.gov/flu)

National Immunization Program
[HTTP://WWW.CDC.GOV/NIP](http://www.cdc.gov/nip)

PIMA COUNTY HEALTH DEPARTMENT
Public Health Emergency Preparedness Program
Epidemiology and Disease Control
[HTTP://WWW.PIMA.GOV/DISEASE.ASP](http://www.pima.gov/disease.asp)

Vaccine Preventable Disease/Immunization Program
[HTTP://WWW.PIMA.GOV/IMMUNIZE.ASP](http://www.pima.gov/immunize.asp)

Office of Emergency Management and Homeland Security
[HTTP://WWW.PIMA.GOV/EMERGENC.HTM](http://www.pima.gov/emergenc.htm)