

Toolkit

Thank you for downloading this tool. The tools, templates and resources provided in this online toolkit are compiled and curated by NACCHO primarily to assist those local health departments applying to Project Public Health Ready (PPHR), a criteria-based all-hazards preparedness training and recognition program for local health departments. Many of these tools were collected from the plans of previous PPHR applicants. All of the resources in this toolkit were vetted and approved as exemplary practices by a workgroup of local public health preparedness experts.

We hope you find these resources useful and engaging. For more information about Project Public Health Ready or to provide feedback on any of these tools, please contact us at pphr@naccho.org.

PIMA COUNTY HEALTH DEPARTMENT

OUTBREAK RESPONSE PLAN



CORE DOCUMENT AS OF May 2010

Comments on this Plan should be forwarded to:

Public Health Preparedness Program Pima County Health Department

Email:

Record of Plan Revision

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I. INTRODUCTION

The response to infectious disease outbreaks is a fundamental operation of local public health departments. The Pima County Health Department (PCHD) has over the years forged strong relationships with their community partners to respond to the outbreaks occurring in Pima County. The Disease Control Epidemiology section consists of Epidemiologists and Communicable Disease Investigators, (CDI's)) instigate outbreak investigations. The Disease Control Epidemiology Section works closely with Environmental Health, Public Health Nursing, local schools, daycares as well as representatives of local healthcare facilities and other organizations outside of Pima County to monitor the health of the community for possible outbreaks. In addition to investigating outbreaks when they occur, the epi section also conducts ongoing surveillance using the latest technology and networking activities to improve the ability to detect and respond to outbreaks.

II. ACTIVATION LEVELS OF RESPONSE

A. <u>Preparation</u>: Training essential personnel to full Epidemiology Functional Roles and Responsibilities under the Intelligence Branch of the Operations Section. Epidemiology and Surveillance staff will conduct investigation and contact tracing in day-to-day operations.

B. <u>Alert</u>: Including data sharing and reporting through surveillance systems and early event detection. Alert level has the increased probability of becoming a major outbreak if not contained in a rapid and systematic manner. The alert level may be instituted if:

- 1. A suspect illness presents a potential threat to the community
- 2. An outbreak illness clinically compatible with a serious disease or health treat occurs

3. An event that indicates the release of an agent that threatens the health of the community

4. A serious health emergency is reported outside Pima County

C. <u>Respond</u>: Pima County Health Department Incident Command and Emergency Response Plan is activated. Respond level is a major event that requires immediate mobilization of resources for investigation and containment. Any bioterrorism attack or disease that can be transmitted to large numbers of people (i.e. widespread distribution of food product, public water supply or point source affecting large numbers) should be considered an event trigger for the Respond level.

D. <u>Recover</u>: Level includes methods of evaluation, restoring day-to-day operations, and compiling data for written reports.

III. CONCEPT OF OPERATIONS

A. Epidemiology Functional Roles and Responsibilities will fall under the Health Information and Intelligence Branch of the Operations Section in PCHD incident responses.
 Note: Staff may need to take on more than one of the following Functional Roles simultaneously, especially the Disease Investigator and Surveillance roles.

- 1. Health Information and Intelligence Branch
 - a) PCHD Epidemiologist or designee
 - **b)** Oversees activities of the epidemiology groups listed below.
 - c) Designates group leaders to coordinate all aspects of the investigation, data management, surveillance, communication, and laboratory liaison functions
 - **d)** Provides daily status reports to Operations Section Chief (OSC) and Group Leaders.

- e) Is responsible for the updating and coordination of the Health Info and Intel Incident Action Plan (IAP).
- f) Provides daily reports to Operations Section Chief

2. Surveillance Group Leader

- **a)** Is responsible for daily contact with healthcare providers, schools, businesses, etc. to identify new cases of outbreak-related disease.
- **b)** The collection of basic information related to each reported case
- c) Forwarding all suspect and case information to the Disease Investigation Group Leader and the Data Management Group Leader
- d) Enters case and contact information into spreadsheets or databases as provided.

3. Disease Investigation Group Leader

- **a)** Is responsible for all case and contact interviews for each confirmed, probable, and suspected case and the collation of information on all contacts.
- **b)** Is responsible for the completion of all disease investigation forms.
- c) Provides daily reports and updates to the Health Information and Intelligence Branch Director
- **d)** Establishes methods of communication for contacts to monitor their health status.
- e) Is responsible for locating contacts for surveillance, vaccination, and prophylaxis (if warranted).

4. Laboratory Group Leader

- a) Coordinates with the Disease Investigator Group Leader
- **b)** Arranges specimen transport to Arizona State Laboratory (ASL).
- c) Coordinates with Health Info and Intel Branch Director to provide timely information to laboratories on outbreak situational needs.
- **d)** Is responsible for the assemblage of supplies for specimen gathering in the field and office.
- e) Arranges for pick up and delivery of supplies and specimens for outbreak
- **f)** Reports lab results to Disease Investigation group leader, Chief Medical Officer and Health Info and Intel Branch Director

5. Data Management Group Leader

- a) Is responsible for data collection, analysis and distribution of epidemiologic data.
- **b)** Supervises development of any databases needed by the case investigation and surveillance teams.
- c) Supervises development of databases needed by the Health Info and Intel Branch
- **d)** Assign data entry specialists to complete any data updates, investigations and/or surveillance not completed during the former operational period.
- e) Collects all data entered by Disease and Surveillance Investigators electronically in a central repository for support and back-up purposes.
- **f)** Collects in a compatible (ascii, fixed text, etc.) format any data required for surveillance or case investigation from hospitals, doctor offices, clinics, and schools etc.
- 6. Chief Medical Officer (CMO), this position is part of the Command Staff and is mentioned here to show the connectivity to an outbreak response.
 - a) Writes and issues medical orders (i.e. standing orders and telephone orders) for prophylaxis and treatment of cases and contacts.

- **b)** Works with the Health Info and Intel Branch Director, Communication Branch Director, and Call Center Group Leader to provide medical advice to the health care community as well as the population at large.
- c) Coordinates with the Containment Branch Director on containment response. (for distribution of prophalaxis, vaccination and specimen collection)
- d) Monitors outbreak and outcomes of cases.
- e) Provides daily reports to Incident Commander

7. Containment Branch Director

- a) Provides or arranges prophylaxis (e.g. vaccination, antibiotics) for contacts of cases (and contacts of contacts).
- **b)** May administer or arrange treatment (e.g. antibiotics) for some cases.
- c) Monitors vaccine's for successful vaccine reaction and adverse events.
- d) Maintains appropriate vaccination records.
- e) Ensures cold chain of vaccine.
- f) Ensures adherence to vaccine handling protocols
- g) Ensures inventory control measures are in place.
- h) Provides daily reports to Operations Section Chief

8. Environmental Health Branch Director

- a) Evaluates outbreak for environmental factors
- **b)** Collects and arranges testing of vectors, animals, food, water, etc.
- c) Inspects implicated public facilities and other properties.
- d) Supervise all EH investigations, tracebacks and recalls
- e) Provides daily reports to Operations Section Chief

9. Communications Branch Director

- a) Maintains communications equipment
- **b)** Consults with PIO on appropriate comm. equip.
- c) Develops press releases and other public announcements for PIO
- **d)** Coordinates all communications coming out of the Health Information and Intelligence Branch to ensure there is no duplication of efforts or mixed messages.
- e) Ensures all communications are approved by PIO and IC and time stamped prior to release.
- f) Provides daily reports to Operations Section Chief

B. Scope of Operation

1. Outbreak Response Mission Statement:

The Pima County Health Department will use all available resources and expertise to achieve the following: 1) Recognize outbreaks; 2) Responding quickly and effectively to outbreaks; and 3) Containing the further spread of disease caused by outbreaks.

2. Outbreak Response Goals

- a) Develop an Outbreak Response Plan for PCHD, including procedures and/or protocols to be followed.
- **b)** Establish and maintain efficient communication between PCHD and all other agencies, organizations, and professionals that have a role in outbreak detection or response.
- c) Provide information and training to healthcare providers on the process of contacting PCHD for the purposes of reporting diseases or outbreaks.
- **d)** Provide training in outbreak investigation and response, including classroom training and interactive outbreak exercises, to appropriate staff members within PCHD and other agencies or organizations.

3. PCHD Structure (Ongoing Activities)

- a) Pima County Public Health Preparedness, Epidemiology and CMO will oversee and guide PCHD activities
- **b)** Workgroups
 - (1) Training
 - (2) Communication
 - (3) Community response, (SWAT, Special Needs, Volunteers etc.)

4. PCHD Incident Command System

- a) The PCHD Epidemiology Manager or designee will effectively function as the Incident Commander during the early stages of an outbreak response.
- **b)** As response needs grow, a full ICS organization may need to be established, with the Epidemiology Manager functioning as the Operations Section Chief (if outbreak investigation and surveillance are driving the outbreak response).
- c) If operations include more than outbreak investigation (i.e. more than can be accomplished by Epi alone), The Epidemiologists will function as one or in several of the Branches or Groups under the Operations and or Planning sections.

IV. PHASES OF OPERATION

A. Preparation

1. Training

- a) Training is essential to ensure an effective outbreak response team.
- **b)** The Epidemiologist, Consumer Food and Health Safety and BT Managers will coordinate and/or deliver training sessions to staff and other potential response personnel.
- c) Topics that will be covered include: basic epidemiology, outbreak investigation, contact tracing, and disease surveillance.
- d) Tabletop exercises will also be conducted as interactive training sessions.
- e) Rapid (just-in-time) training curriculum
 - (1) Basic overview of epidemiology
 - (2) Overview of outbreak investigation
 - (3) Public health surveillance
 - (4) Disease investigation and contact tracing
 - (5) Epi/Outbreak data entry and management
 - (6) Review of Epi/Outbreak Job Action Sheets in Appendix (C)

2. Communicable Disease Early Recognition and Surveillance

a) Communicable Disease Reporting

(1) 24/7 Receipt of Reports:

Communicable disease reports are received during normal business hours by the Disease Control (DC) Program through the Main telephone number **Control**). A member of the Epi section is always on-call during normal business hours. After hours urgent disease or outbreak reports are received by the Epidemiologist on-call at (**Control**). The phone is triaged by Rincon communications staff to the Epidemiologist on-call and is regularly tested. The Epidemiologist relays any pertinent information about the case or incident being reported to the Chief Medical Officer when indicated by 24/7 protocol. The Epidemiologist on-call begins an investigation according to the nature of the report. Initial communicable disease case information is collected using a Communicable Disease Report (CDR) form

(http://www.azdhs.gov/phs/oids/downloads/cdr_form.pdf). Disease Control Program staff conduct routine investigations of cases and complete long forms if required (long forms are located on ADHS website http://www.azdhs.gov/phs/oids/epi/inv_forms_pg.htm). The CDR and

long form are transmitted to ADHS via the Medical Electronic Disease Surveillance Intelligence System, (MEDSIS) and Copies of the CDR and long form, when appropriate are mailed to ADHS according to standard reporting procedures. An epidemiologist is always on-call at ADHS for urgent disease reports (

(2) Provider Education on Disease Reporting

(a) The Disease Control Epidemiology Section provide educational and reference materials to healthcare providers about which diseases are reportable in Arizona, how to report diseases to PCHD, and all necessary contact information for complying with the reporting requirements.

- (b) Components
 - (i) Disease Control Reporting Posters
 - (a) List of reportable diseases and Arizona code
 - (b) Instructions for reporting to PCHD
 - (c) Reporting contact information

(d) Training on Electronic reporting via Medical Electronic Disease

Surveillance Intelligence System (MEDSIS)

(ii) Provider-Epidemiologist Presentations and Trainings for review and updating when requested or needed.

b) Surveillance Systems and Data Management

(1) Human cases of communicable diseases:

(a) The Epi section is currently using the Medical Electronic Disease Surveillance Intelligence System (MEDSIS) for reporting communicable diseases to the Arizona Department of Health Services. MEDSIS is a secure, Web-based, data collection and management system. (MEDSIS is accessed through the website (https://health.azdhs.gov/gateway/signin.asp) with a login ID and password. All Epidemiologists, Chief Medical Officer (CMO) and Communicable Disease Investigators, (CDI's) have access to MEDSIS. MEDSIS includes all reportable diseases except HIV, STDs, and tuberculosis. All cases of reportable diseases that are captured by MEDSIS are entered into the system by Epidemiologists, CDI's or Hospital Infection Preventionists, (IP's)

(2) Vector-borne and zoonotic diseases

(a) Animal and insect data is captured in the MEDSIS Arbovirus Module

- (3) Influenza-like Illness (ILI)
 - (a) CDC Web-based surveillance system

(b) Sentinel healthcare provider sites enter data on patients with ILI syndrome

- (c) PCHD has access to data for all local sites
- (d) Currently there are 10 ILI sites in Pima County

(e) Additional data is gathered from Pima County Schools when 10% of student population is absent.

(4) Biosense

(a) CDC System for syndromic surveillance and early recognition of public health events

(b) Web-based with login ID/password and digital certificate security

(c) Epidemiologists and CDI's have access and have received training on the system.

- (d) Data sources
 - (i) Department of Defense/Veterans Administration healthcare facility diagnosis and procedure data.

(ii) Davis Monthan Air Force Base data

(e) Data is broken down into syndrome categories (e.g. respiratory, neurological, gastrointestinal)

(f) The system displays the data on graphs and maps, statistically analyzes the data, and generates alerts when data exceeds statistical limits.

c) Early Event Detection

- (1) Data Analysis
 - (a) Once per week for human communicable disease case data
 - (b) Daily for VBZD during the arbovirus season
 - (c) Once per week for ILI data during the regular influenza season
 - (d) The data is monitored and analyzed for unusual increases.
- (2) Reports of Suspected Outbreaks

(a) Reports are received through MEDSIS, the daily epi phone schedule or through the after hour phone service.

(b) Received from healthcare providers (including assisted living centers), schools, correctional facilities, etc.

(3) Laboratory Reporting

(a) Single cases of certain reportable diseases could constitute an emergency.

(b) Arizona State Laboratory reports positive results to ADHS Office of Infectious Disease Epidemiology Section (OIDES).

(c) OIDES immediately notifies PCHD of urgent reportable cases

3. Specimen Testing and Laboratory Data

a) Specimen Transportation and Testing

- (1) Commercial labs
 - (a) Perform testing requested by healthcare providers.
 - (b) Required to report positive test results for certain infectious agents to
 - the Arizona Department of Health Services (ADHS)
 - (c) Commercial labs in Arizona:
 - (i) Alliance Medical Laboratories
 - (ii) LabCorp
 - (iii) Sonora Quest
- (2) Arizona State Laboratory (ASL)
 - (a) A bureau of ADHS.
 - (b) ASHL is the reference laboratory used by PCHD.
 - (c) Will perform clinical specimen testing requested by ADHS and PCHD.
 - (d) Will confirm commercial lab results, when necessary.
 - (e) The laboratory is available 24/7/365.
 - (f) The lab reports the results to the ADHS' OIDES, PCHD, and the

healthcare provider who submitted the specimen for testing. Results are communicated through telephone, fax, and/or U.S. mail.

- (g) Contact information
 - (i) Main number:
 - (ii) After hours manager pager:
 - (iii) Assistant Bureau Chief cell phone:
 - (iv) Address:
- (3) Specimen Packaging

(a) Diagnostic specimens (i.e. Biological Substances) will be packaged according to federal law (49-CFR Parts 171-173 and 175).

(b) Epidemiologists will completed the workshop training session entitled "Shipping Infectious and Biological Substances" coordinated by ASL.

(c) The Epidemiologists have copies of the relevant portions of the Code of Federal Regulations (CFR) that are applicable to shipping infectious and biological substances (49 CFR Parts 171-173 and 175). The Federal Register document (Vol. 71, no. 106) containing the most recent versions of these regulations can be found on the Electronic Code of Federal Regulations web page, (http://ecfr.gpoaccess.gov/cgi/t/text/text-

idx?c=ecfr&tpl=%2Findex.tpl)

(i) The vast majority of samples or specimens transported by PCHD will be classified as "Biological Substances, Category B." This category is defined in 49 CFR 173.134. Packaging for these specimens is described in 49 CFR 173.199

(ii) Rarely, a specimen may be classified as "Infectious Substances, Category A." This category is defined in 49 CFR 173.134. A list of substances falling into this category can be found on pp. 32245 and 32246 of the Federal Register document in Appendix D. Packaging for these specimens is described in 49 CFR 173.196

(4) Transportation/Shipping

(a) All specimens will be sent to ASL via overnight FedEx Express (Air) transportation. (FedEx will not ship infectious or biological substances via Ground transport.) A Shipper's Declaration of Dangerous Goods must be completed (typing or computer printing only).

(b) In the event that the services of commercial transportation are not available, an alternative mode of transport will be secured by PCHD employee to ASL. (This may be via the normal ADHS courier service located at 400 W Congress, or the PC Sherriff's department

(c) The cost of shipment of specimens required to confirm an outbreak may be charged to the Public Health Emergency Preparedness (PHEP) Program.(d) An ASL Laboratory Submission Form will be completed and included in the specimen shipment.

(e) During an outbreak, the Laboratory Liaison Group Leader will arrange specimen collection and shipping when indicated.

(f) See "Evidence Management" below for a description of how specimens will be handled during a bioterrorism event.

b) Data Management

(1) Data management tools may take the form of a simple spreadsheet or web based and/or relational database

(2) A Web based call center database (https://secure.pima.gov/eccs/) has been created and may be modified to capture additional data specific to the outbreak under investigation. This database was made to collect and repond for the call center when activated Additional data may be collected in additional Analytical databases and will include sections designed to capture laboratory data. The database will coincide with paper questionnaires. The outbreak-specific database will be located on the shared (S:) drive and access will be provided to Disease Investigators, Surveillance, Lab, and Data Entry personnel.

(3) In smaller outbreaks, data will be entered by the epidemiologist assigned to planning, and Communicable Disease Investigators.

(4) During larger outbreaks, the Health Information and Intel Branch may create a Data Entry Team with a Data Management Group Leader who will review, and analyze all data and report to the Health Information and Intel Branch Director.

c) Evidence Management

(1) During suspected bioterrorism events or outbreaks believed to be caused by the intentional release of infectious agents, diagnostic specimens will be considered evidence for forensic purposes.

(2) Local law enforcement personnel (i.e. City police department or Pima County Sheriff's Department) will transport and /or escort specimens that are considered evidence to the Department of Public Safety (DPS).

(3) Department of Public Safety personnel will transport and/or escort evidentiary specimens to the Arizona State Health Laboratory (ASL).

(4) Chain of Custody

(a) A Receipt of Property form (or DPS chain of custody form) will be used to track the movement of evidence between agencies and jurisdictions. This form was created by ASL, and copies are kept by the Epidemiology department manager.

(b) The Receipt of Property form (or DPS chain of custody form) will be signed and dated with 24 hour time system every time evidence changes hands.

(c) A DPS or FBI tracking number will be included on the Receipt of Property form.

B. Alert

1. Sharing Data and Reporting

- a) The Health Info and Intel Branch is responsible for sharing data.
- **b)** Groups that HIPPA complaint data may be shared with include:
 - (1) Arizona Department of Health Services
 - (2) Public (through PCHD website)
 - (3) Schools
 - (4) Pharmacists
 - (5) Veterinarians
- c) The Epidemiologist (or designee) removes identifying information before sharing (except for CDRs and Investigation Forms that are sent to ADHS).
- **d)** Data/reports may include the following:
 - (1) Case Report forms (CDRs and Long Forms)
 - (2) Line lists of cases
 - (3) Tables of number of confirmed, probable, and suspect cases
 - (4) Summarized epidemiologic and/or laboratory confirmation data
 - (5) Graph of the epidemic curve (# cases over time)
 - (6) Brief explanations/summaries of the data
 - (7) Items #1and #2 contain identifying information
- e) Process for data sharing:
 - (1) Create reports and data-containing documents.
 - (2) Decide who needs to receive the data.

(3) Distribute data through telephone, (call center when appropriate), fax, email, the PCHD website

(4) Note: The PCHD Disease Control Program routinely sends CDRs and Investigation Forms on reportable diseases to ADHS.

f) Contact Information for Data Distribution

(1) The Pima County Bio-Terrorism and Preparedness (BT) Program maintains spreadsheets of contact information for the following groups:

(a) Healthcare providers: physicians, medical practices, physician assistants, nurse practitioners, and Infection Preventionists.

- (b) Pharmacists
- (c) Schools
- (d) Veterinarians
- (e) Other county health departments
- (f) Local reservation health departments
- (2) Contact information is located on the shared drive in the (



-) folders.
- **g)** Examples:

(1) *Epi News*: a newsletter is edited and written by Disease Control Staff and is distributed quarterly to the recipient groups listed in #f) (1) above. The newsletter includes summary epidemiologic and laboratory data. Public Health Alerts are distributed as needed to healthcare providers and other groups who need the information. These alerts include data related to the occurrence of cases of cases of communicable disease and their laboratory confirmation, if applicable.

2. Reporting suspected outbreaks to ADHS

- a) Local health departments are required to immediately report suspected outbreaks to ADHS.
- **b)** The Epidemiologist (or designee) will submit the report by telephone or other expeditious means

3. Activation of Outbreak Response.

- a) Disease Control Epidemiologist, Environmental Services, or Director) receives report(s) of outbreak(s)
- **b)** Epidemiologist is notified
- **c)** Epidemiologist confers with CMO and Environmental staff (when Outbreak involves them).
- **d)** If an outbreak is determined to have occurred and an investigation is required, the Disease Control Epidemiology Manager appoints/assumes Incident Commander position and designates ICS positions that will be implemented to respond to outbreak.
- e) The IC will monitor outbreak and adjust ICS accordingly
- **f)** The Disease Control Epi Team members meet regularly to discuss outbreak surveillance, data, laboratory, communications and investigation activities.

C. Respond

1. Outbreak Investigation Guidelines

Note: The following activities may be performed in a different order or simultaneously.

a) Prepare for field work.

 $\left(1\right)$ Review the epidemiology of the disease being investigated including, but not limited to:

- (a) PCHD Disease Protocol
- (b) Mode(s) of transmission
- (c) Portals of entry and exit of pathogen
- (d) Risk factors for infection
- (e) Established contact and control measures
- (2) The following materials may be needed in the field:

(a) Questionnaires: created by the Data Management Group Leader their may be several questionnaires for case and contact interviews.

 $(b)\;$ The Disease Investigation Group Leader will be responsible for investigation of cases, suspect cases and their contacts .

(c) The Communicable Disease Report Form (CDR)

(http://www.azdhs.gov/phs/oids/downloads/cdr_form.pdf) used for routine investigation of Communicable Disease cases should be used as starting points for generating outbreak-specific forms. The standard forms will usually not suffice during an outbreak because they will not likely contain all of the exposure and demographic information that would need to be collected. Questionnaires used during previous outbreak investigations may also be used as starting points for creating questionnaires. A gastrointestinal illness outbreak investigation form (GI Illness Outbreak Form) is located on the ADHS website: (http://www.azdhs.gov/phs/oids/epi/inv_forms_pg.htm)

- (d) Control of Communicable Diseases Manual
- (e) Specimen collection materials
- (f) Consent forms
- (g) Laptop computer(s) and printer(s)
- (h) Cell phones and chargers
- (i) Guidelines for the control of the outbreak disease
- (j) FAQ's/education pamplets of outbreak disease
- **b)** Establish the existence of an outbreak.

(1) Estimate the initial attack rate (number of individuals who are ill divided by the number at risk)

(2) Compare the number ill and the initial attack rate with the normal (expected) number ill for the particular disease at that time of year

(3) If the illnesses are occuring in an educational institution or business, inquire with administration, employee health, or school healthcare about the normal level of the illness in that setting

(4) If no specific information about the normal level of illness is available, the existence of an outbreak may need to be assumed based on a high attack rate or the known or assumed rarity of an illness (e.g. anthrax)

c) Verify the diagnosis.

(1) The IC, CMO, Branch, and Group leaders will discuss the symptoms and epidemiology of the illness being experienced to identify the disease that is most likely causing the outbreak

(2) Collect appropriate specimens from at least five affected individuals and transport to the State Lab to confirm diagnoses

- **d)** Define and identify cases
 - (1) Establish a case definition, which may include the following:
 - (a) Clinical criteria
 - (b) Person: demographic and other personal factors
 - (c) Place: locations of residence, work, or recreation
 - (d) Time: duration of symptoms, range of onset dates
 - (2) Identify cases (Surveillance Group Leader)
 - (3) The Surveillance Group Leader will:
 - (a) Telephone appropriate healthcare providers daily to inquire about possible cases of disease they may have encountered
 - (b) Receive telephone, MEDSIS, and fax reports of cases and suspect cases
 - (c) Enter information into line list, including contact information
 - (d) Forward line lists to the IC, and CMO at least once per day

(e) Disease Investigators will contact suspect cases to interview and determine if they are true cases

- e) Implement control and prevention measures
 - (1) Initially based on known characteristics of disease
 - (2) May include
 - (a) Vaccination
 - (b) Antibiotic prophylaxis
 - (c) Health behavior education (e.g. handwashing, respiratory etiquette)
 - (d) Disinfection/decontamination recommendations
 - (e) Isolation and/or quarantine recommendations

(3) CMO will implement such measures only on a limited basis. If large-scale control measures are necessary (e.g. mass vaccination), these will be coordinated and conducted by The Containment Branch under the Operations section of the Incident Command System.

f) Interview Cases (Disease Investigators)

(1) The Health Info and Intel Branch Director will designate the Disease Investigation Group Leader and communicable disease investigators (CDI's)

(2) Telephone or visit all suspected cases

(3) If interviewing in person, wear appropriate personal protective equipment, when necessary

- (4) Administer questionnaire(s)
- (5) Provide information about the disease and its prevention
- (6) Identify contacts, if necessary
- (7) Forward questionnaires and interview notes to Data Management Group Leader and Branch Director when necessary.
- **g)** Interview Contacts (CDI's)
 - (1) Only with disease transmitted person-to-person
 - (2) Do not reveal the identity of the case to which they had contact
 - $\left(3\right)$ Determine if they are experiencing symptoms of the illness
 - (a) If so, complete the same questionnaire used for cases
 - (4) Instruct contact to monitor his/her health and report symptoms
 - (5) Coordinate post-exposure prophlaxis, if warranted
 - (6) Provide information about the disease and its prevention
- **h)** Perform descriptive epidemiology (Data Management)
 - (1) Develop data collection database or spreadsheet.
 - (2) Enter data from questionaires using Data Entry Specialists if outbreak is large
 - (3) Define the outbreak in terms of person, place, and time

(4) Create tables with breakdown of cases by demographic or other characteristics/risk factors

(5) Plot epidemic curve

(6) The specific epidemiological characteristics of the outbreak may result in a need to collect more information. If this is the case, revise the questionnaires with other Health Info and Intel group leaders and determine if the cases need to be re-interviewed for the additional information (Step f)

- i) Develop hypotheses about the cause(s) of the outbreak
 - (1) Compare hypotheses to known risk factors for the disease

(2) If the causes of the outbreak and risk factors for the disease appear to be consistent with what is known about the disease, then only descriptive epidemiology is necessary to explain and report on the outbreak and implement and/or revise control measures

j) Evaluate hypotheses (Analytic Epidemiolgy)

(1) Analytic epidemiologic studies are usually not necessary in an outbreak investigation. Most outbreaks involve well-known diseases with well-established transmission routes and risk factors. Most information needed to implement control measures during an outbreak will come from descriptive epidemiology and known characteristics of the disease in question.

- (2) Consider performing analytic epidemiologic studies if:
 - (a) The outbreak disease is unknown or novel.
 - (b) The transmission or other epidemiologic characteristics are unusual.
 - (c) A point source for the causative agent is suspected (e.g. a food item).
- (3) The following types of studies may be performed:
 - (a) Case-control study

(i) Definition: An epidemiologic study in which cases (ill individuals) are compared to controls (unaffected individuals) with respect to the presence of one or more exposures or risk factors for the disease. The measure of association between illness and exposures is the odds ratio (OR).

(ii) Perform a case-control study if there is NOT a well-defined and limited population-at-risk OR if it is not feasible to interview the majority of members of the population-at-risk (e.g. a community-wide outbreak)(iii) Procedure:

- 1. Revise outbreak case definition for study purposes.
- 2. Identify cases that meet the revised case definition.
- 3. Identify strategy for finding controls.
- 4. Recruit controls.
- 5. Modify/develop study questionnaire.
- 6. Modify/develop outbreak database.
- 7. Interview cases and controls.
- 8. Enter data into outbreak database.
- 9. Calculate odds ratios for exposures of interest.
- 10. Generate conclusions
- (b) Retrospective Cohort Study:

(i) Definition: An epidemiologic study in which exposed individuals are compared to unexposed individuals with respect to the subsequent development of a disease. Retrospective refers to the fact that participants are recruited after they have developed the illness. The measure of association between exposures and illness is the risk ratio (RR).

(ii) Perform a cohort study ONLY if there is a well-defined and limited population-at-risk (i.e. the cohort) AND the majority of its members can be interviewed.

(iii) Procedure:

- 1. Identify the population-at-risk (e.g. picnic participants)
- 2. Identify exposures and risk factors of interest.
- 3. Modify/develop study questionnaire.
- 4. Modify/develop outbreak database.
- 5. Interview members of the population-at-risk.
- 6. Enter data into outbreak database.
- 7. Calculate risk ratios for exposures of interest.
- 8. Generate conclusions and write study report.

(iv) Use data and conclusions from the study to modify or enhance outbreak control measures (i.e. eliminate or reduce exposures or risk factors that were found to be associated with illness).

- k) As necessary, reconsider/refine hypotheses and execute additional studies
 - (1) Additional epidemiologic studies
 - (2) Other types of studies laboratory, environmental
- I) Continue and/or revise control and prevention measures
- **m)** Communicate findings

 $\left(1\right)$ Provide updates to Outbreak response team, CMO, Senior Management, and ADHS

- (2) Provide input to public information messages
- 2. Not all steps are required in every outbreak investigation.
- 3. The manner by which these guidelines are followed will be at the discretion of the Incident Commander

D. Recover

- 1. Evaluate therapeutic outcome
 - a) Disease Investigators will make follow-up contact with cases and/or healthcare providers who treated cases.
 - **b)** Information about specific treatment (e.g. antibiotics, antivirals) will be collected and recorded if it was not previously done during the initial investigation.
 - **c)** Basic information about the outcomes (e.g. died, recovered, continuing symptoms and sequelae) resulting from therapies will be recorded.
 - **d)** Disease Investigators and/or Data Entry personnel will enter all treatment and outcome data into the same database used for the outbreak investigation.
 - e) The Data Management Group Leader will create tables and/or graphs summarizing therapeutic outcomes related to the outbreak.
 - f) This section is not applicable to disease with no specific treatments.

2. Write an outbreak report

- a) The Disease Control Epidemiologist will designate a lead to coordinate report writing and editing
- **b)** The outbreak report will include:
 - (1) A description of the outbreak location
 - (2) Date and time of notification of the outbreak to PCHD
 - (3) Description of how the outbreak was verified
 - (4) The number of individuals ill and the estimated number at-risk for illness
 - (5) Outbreak case definition
 - (6) Summary of the signs and symptoms
 - (7) An epidemiologic curve

(8) Copies of laboratory test results (or a summary if hard copies not yet sent by the Arizona State Laboratory). These should be de-identified for non-public health recipients of the report.

(9) Hypotheses of how the outbreak occurred and conclusions based on the investigation.

(10) Description of the control measures used the dates they were implemented, and recommendations for preventing future outbreak

Attachment B



Arizona Administrative Code⁺ Requires Providers To:

Report Communicable Diseases

to the Local Health Department

=* O	Amebiasis	=	Hantavirus infection	=* O	Salmonellosis
æ	Anthrax	æ	Hemolytic uremic syndrome	0	Scabies
=	Aseptic meningitis: viral	=* O	Hepatitis A	æ	Severe acute respiratory syndrome
=	Basidiobolomycosis	=	Hepatitis B and D	=* O	Shigellosis
2	Botulism	=	Hepatitis C	2	Smallpox
0	Brucellosis	=* O	Hepatitis E	=	Streptococcal Group A: invasive disease
=* O	Campylobacteriosis	=	Herpes genitalis	=	Streptococcal Group B: invasive disease in infants younger than
=	Chagas disease (American trypanosomiasis)	=	HIV infection and related disease		90 days of age
=	Chancroid	\mathbf{I}	Influenza-associated mortality in a child	=	Streptococcus pneumoniae (pneumococcal invasive disease)
=	Chlamydia infection, sexually transmitted	=	Kawasaki syndrome	=	Syphilis
)*	Cholera	=	Legionellosis (Legionnaires' disease)	=* O	Taeniasis
=	Coccidioidomycosis (valley fever)	=	Leptospirosis	=	Tetanus
=	Colorado tick fever	2	Listeriosis	=	Toxic shock syndrome
0	Conjunctivitis: acute	=	Lyme disease	=	Trichinosis
=	Creutzfeldt-Jakob disease	=	Lymphocytic choriomeningitis	٢	Tuberculosis, active disease
=* 0	Cryptosporidiosis	Ξ	Malaria	Э	Tuberculosis latent infection in a child 5 years of age or younger
=	Cyclospora infection	2	Measles (rubeola)		(positive screening test result)
=	Cysticercosis	2	Meningococcal invasive disease	2	Tularemia
=	Dengue	I	Mumps	æ	Typhoid fever
0	Diarrhea, nausea, or vomiting	æ	Pertussis (whooping cough)	0	Typhus fever
2	Diphtheria	2	Plague	2	Unexplained death with a history of fever
=	Ehrlichiosis and Anaplasmosis	æ	Poliomyelitis	٢	Vaccinia-related adverse event
A	Emerging or exotic disease	Ξ	Psittacosis (ornithosis)		Vancomycin-resistant or Vancomycin-intermediate Staphylococcus aureus
Э	Encephalitis, viral or parasitic	0	Q fever		Vancomycin-resistant Staphylococcus epidermidis
A	Enterohemorrhagic Escherichia coli	æ	Rabies in a human	=	Varicella (chickenpox)
A	Enterotoxigenic Escherichia coli	Ξ	Relapsing fever (borreliosis)	=* O	Vibrio infection
=* O	Giardiasis	=	Reye syndrome	æ	Viral hemorrhagic fever
Ξ	Gonorrhea	=	Rocky Mountain spotted fever	=	West Nile virus infection
=	Haemophilus influenzae: invasive disease)*	Rubella (German measles)	A	Yellow fever
=	Hansen's disease (Leprosy)	\mathbf{I}	Rubella syndrome, congenital	=* O	Yersiniosis

Submit a report by telephone or through an electronic reporting system authorized by the Department within 24 hours after a case or suspect case is diagnosed, treated, or detected or an occurrence is detected.

* If a case or suspect case is a food handler or works in a child care establishment or a health care institution, instead of reporting within the general reporting deadline, submit a report within 24 hours after the case or suspect case is diagnosed, treated, or detected.

① Submit a report within one working day after a case or suspect case is diagnosed, treated, or detected.

Submit a report within five working days after a case or suspect case is diagnosed, treated, or detected.

O Submit a report within 24 hours after detecting an outbreak.



Attachment D

Arizona Department of Health Services	COMMUNICABL nportant Instruct ection 4 for STE eturn to your co	E DISEASE REPORT ctions - Please complete Se Ds and HIV/AIDS, Section 5 unty or tribal health agenc	ections 1 thru for hepatitis, y. If reporting	3 for all reportab and Section 6 fo through MEDSIS	complet pleted,	Count	y / IHS Number	County / IHS Number State ID / MEDSIS ID			Date Rec	eived by County		
1. PATIENT INFORMATION														
Patient's Name	(Last)	(First) (Mi	ddle Initial)	Date of Birth	Race (C White Blace Asia	Check all that apply) te Pacific Islar k Native Ame n Other	nder 🗌	Unknown Ethnicity Sex Unknown Hispanic Male Non-Hispanic Female			Transgender		Pregnant No Yes Due Date	Unknown
Street Address				City		State	ZIP Co	de County Reservation				Telepi	none #	
Patient's Occupa	tion or School			Guardian (Not no	ecessary for	STD)	Outcon	me Is the patient any of the following? rvived				re worker/attendee		
2. REPORTAB	LE CONDITION	N INFORMATION / LAB	RESULTS					3. REPO	RTER AND PROV	IDER INFOR	MATION			
Diagnosis or Sus	pect Reportable (Condition	Onset Da	te	Diagnos	sis Date		Reporting	Source (Physician or c	ther reporting sou	urce)	Facil	ity	
Date Collected L A B	Date Finalized	Specimen Type Blood CSF Urin Stool NP Swab Spu Other	Lab Test		Lab Res	sult		Street Add	dress If different from reporte	City	State	ZIP C	Code ity	Telephone #
R Date Collected E S U	Date Finalized	Specimen Type Blood CSF Urin Stool NP Swab Sput Other	e rum		Lab Result Pr			Provider Street Address City State			State	ZIP C	code	Telephone #
T S Date Collected	Date Finalized	Specimen Type Blood CSF Urin Stool NP Swab Spu Other	e tum		Lab Result Lab Name, Add			Lab Name, Address and Telephone #						
4. SEXUALLY	TRANSMITTE	D DISEASES (STD) AND	HIV/AIDS					5. HEPA	TITIS PANEL				6. TUBE	RCULOSIS (TB)
Diagnosis Syphilis (spe Primary Secondary Early Later Late (>1 ye Congenital Mother's N Other Sypi Neurologic	cify below) nt (<1 year) ear) lame nilis eal Symptoms	te of Last gative HIV st	Site of Infection Genitalia Rectum Throat Other Patient had Sexual Contact with Males Only Refused Females Only Unknown Both Marital Status Married Single			Hepatitis A Serology Results Hepatitis A Antibody (Acute IgM anti-HAV) Hepatitis B Serology Results Hepatitis B Surface Antigen (HBsAg) Hepatitis B core Antibody IgM (HBcAb-IgM) Hepatitis B core Antibody Total (HBcAb) Hepatitis B e Antigen (HBsAg) Symptoms consistent with acute hepatitis Jaundice Liver Function Test ALT AS			Pos Neg Pos Neg Pos Neg Pos Neg Pos		Site of D Pulm Lary Extra TB I 5 ar TB s Medicine (Please e	isease ionary ngeal apulmonary infection in a Child dd Under (Positive kin test result) e and Dosage enter information)		
Treatment	Drug	I	Dosade			ated Dom	estic	Hepatitis	C Serology Results	6	Pos Neg	Unk		
-			-			wn Partr	ner	Hepatitis C Hepatitis C	C-EIA s/co ratio					
Date	Drug		Dosage		Sex Part	ners		Hepatitis C-NAT/PCR						
Date	Drug		Dosage		# of partners # of partners treated			Hepatitis C-Viral Load Liver Function Test ALT			AST			
Comments				I										
														Print Form

Influenza Sentinel Site Protocol

I. Purpose

The purpose of the document is to provide guidance on how to manage sentinel provider sites in Pima County. Sentinel provider surveillance includes healthcare providers reporting weekly patients with influenza like-illness (ILI) by age group and was established by the Influenza branch of the Epidemiology and Prevention Branch at Centers for Disease Control and Prevention (CDC). They collect, compile and analyze information on influenza activity year round in the United States and produce a weekly report from October through mid-May. The U.S. influenza surveillance system is a collaborative effort between CDC and its many partners in state and local health departments, public health and clinical laboratories, vital statistics offices, healthcare providers, clinics and emergency departments. The goal of monitoring ILI among the participating sentinel provider sites is to help determine the level influenza activity in the community. Data from sentinel providers is critical for monitoring the impact of influenza and, in combination with other influenza surveillance data, can be used to guide prevention and control activities, vaccine strain selection, and patient care.

II. Sentinel Provider Coordinator Activities

The duties of the sentinel provider coordinator at the Pima County Health Department (PCHD) are to recruit potential sites for surveillance, provide them with materials from the Arizona Department of Health Services (ADHS) and the CDC, and to communicate messages from health officials regarding influenza.

III. Sentinel Provider Enrollment

There should be a sufficient number of sentinel providers reporting to provide an accurate depiction of influenza activity within the state. The goal for the each state is to have a minimum of ten sentinel sites or one reporting sentinel site per 250,000 residents. The sentinel provider sites should be distributed to mirror the population of each state. The sentinel provider coordinator should enroll sentinel providers who will in aggregate see a broad mix of patients (particularly in regards to age), to ensure a wide range of demographics across the county. Providers of any specialty (e.g., family practice, internal medicine, pediatrics, infectious diseases) in any type of practice (e.g., private practice, public health clinic, urgent care center, emergency room, university student health center) are eligible to be sentinel providers. Practice settings that are **not eligible** are elementary, middle, or high school health centers, and any type of institutional setting such as nursing homes or prisons.

Prospective sentinel surveillance sites are recruited by PCHD and the local health departments, and letters are used to encourage providers to volunteer. A list of current sentinel providers can be found in the Epidemiology share drive. The contact information of interested providers is sent to the ADHS Influenza Epidemiologist to register the providers with the CDC U.S. Sentinel Provider Surveillance Network.

IV. Collection of clinical Specimens

The sentinel providers are considered volunteers. As an incentive for their participation, they are given an allocated amount of influenza test kits (nasopharyngeal swabs and transport media) along with instructions for free laboratory shipping, and processing. The CDC recommends that the sentinel providers have the option of submitting a nasopharyngeal or throat swab specimen from a subset of ILI cases for virologic testing. Although the influenza testing by the state laboratory is at no expense to the sentinel sites, the providers are advised to reserve specimen submission to the state laboratory for the beginning of the Influenza season, peak of the season, and towards the end of the season, as well as for unusual clinical / severely ill cases and outbreak related cases. Due to the time delay in obtaining results, this information usually will

not be useful to the provider for confirming individual cases of influenza but does provide information for all local providers, PCHD, ADHS, and the CDC that influenza has entered the community.

V. Scope of Operations

Detailed reporting instructions from the ADHS Influenza Epidemiologist are mailed to each enrolled provider or given to the county influenza sentinel site coordinator in mid-September. Sentinel providers report the total number of patients seen within a week (every Sunday through Saturday) and the number of those patients with influenza-like illness (ILI) by age group (0-4 years, 5-24 years, 25-64 years, \geq 65 years).

For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a known cause other than influenza. For enhanced surveillance the CDC may also request the information to be reported daily. According to a survey of sentinel providers, most reported that it takes them less than 30 minutes to compile and report their weekly data (50% report 15 minutes or less and 39% report between 15-30 minutes).

Each sentinel site is provided with their own identification code and password so that they can enter and review their own data. Because data viewing and entry occur on the same website, do not distribute the ID's and passwords outside of the ADHS Influenza Epidemiologist or the PCHD Epidemiology department.

The information is transmitted weekly to the CDC through a web page dedicated to ILI surveillance at <u>http://www2.ncid.cdc.gov/flu/</u>. The percentage of patient visits to healthcare providers for ILI reported each week is weighted on the basis of state population. This percentage is compared by the CDC each week with the national baseline of 2.4% and the Mountain regional baseline of 1.5%. This data is published in the Morbidity and Mortality Weekly Report (MMWR). The data is disseminated both via email from ADHS and in the bi- weekly Influenza surveillance conference calls between the Arizona Department of Health Services (ADHS) and county health departments.

VI. Duration of Reporting

The traditional time period for conducting sentinel provider surveillance is from October through May. However, continuous year round surveillance and communication with the sentinel site coordinator is encouraged by PCHD, ADHS and the CDC.

VII. Communication

The coordinator also relays any necessary influenza information to the sentinel providers when directed. For instance, if activity is more prominent than usual and or there is a novel strain outbreak, public health messages are given first hand to the providers. The messages can range from special precautions their facility should be taking such as using surgical masks or isolation of patients, to notices regarding vaccine or antiviral shortages.

VIII. Compensation

Participation in the sentinel provider surveillance network is voluntary. As a token of appreciation, each provider receives a subscription to CDC's Morbidity and Mortality Weekly Report and the Emerging Infectious Diseases journal and a certificate of appreciation from the CDC and ADHS at the end of the season. In addition, family practice residents may fulfill their residency research requirement by participating in this surveillance system.

IX. Health Department Contacts

	Influenza Epie	demiologist
Arizona	Department of Healt	h Services
Phone:	Fax:	

	, Influenza Coordinator
Pima Cour	nty Health Department
Phone:	Fax:

Attachment F



Influenza (Flu) Reporting Form Child Care & School-based Influenza Sentinel Surveillance System

For child cares and school facilities in reporting of Influenza ONLY

School or Child Care reporting _____

Person reporting _____

Phone _____

Reporting Month _____

Fax

Name of Child or Staff With *	Date of Birth	Date of Onset	Received Influenza Vaccine?	Date(s) Vaccinated	**Temperature
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		
			Y N		

*Influenza Like Illness =** temp > 100 Fahrenheit and respiratory symptoms (with no other diagnosis)

Please call Pima County Health Department immediately if you see an unusual increase in # of illnesses, changes in routine disease patterns, higher than normal absentee rates of other unexplained or unusual trends in your staff or students.

Please Fax on the last day of the month (monthly) to Pima County Health Department, <u>even if you have no cases to report</u>.

> Pima County Health Department Vaccine Preventable Disease



Varicella (Chickenpox) Reporting Form Child Care & School-based Varicella Sentinel Surveillance System

For child cares and school facilities for reporting of Chickenpox ONLY

School or Child Care reporting _____

Person reporting _____

Reporting Month _____

Phone _____

Fax _____

Name of Child or Staff With Lesions	Date of Birth	Date of Onset	Rece Vari Vaco	vived cella vine?	Date(s) Vaccinated	(1	Grade of Lesions*		
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	Ν		Ι	II	III	
			Y	N		Ι	II	III	
			Y	N		Ι	II	III	

* *Grade of lesions:* Estimated number of chickenpox lesions/spots easily counted by parent or nurse. Grade I: 50 spots or less easily counted within 30 seconds

Grade II: 50-500 spots (between Grades I and III)

Grade III: 500 or more spots, or spots clumped so close together that little normal skin is visible Please call Pima County Health Department if you see an unusual increase in # of illnesses, changes in routine disease patterns, higher than normal absentee rates of other unexplained or unusual trends in your staff or students.

Please Fax on the last day of the month (monthly) to Pima County Health Department, <u>even if you have no cases to report.</u>

Pima County Health Departm	ent
Vaccine Preventable Disease	e
Fax:	

Aberration Data Protocol

Communicable disease cases are closely monitored by both the PCHD Epidemiology Program and ADHS Office of Infectious Disease to establish disease thresholds and subsequently monitor for activity exceeding expectations indicative of a potential outbreak. Arizona Administrative Code R9-6-101(36) defines an outbreak as follows: "Outbreak means an unexpected increase in incidence of a disease, infestation, or sign or symptom of illness." The Epidemiology Program utilizes the following reports and guidelines to monitor local disease activity in conjunction with reports supplied by ADHS, described respectively.

PCHD Threshold Monitoring and Reports

1. PCHD Aberration Report

All reportable disease cases are captured in MEDSIS. The Epidemiology Program uses the previous four years of historical case data from MEDSIS to identify high frequency diseases in Pima County, defined as averaging at least 5 cases per month (see Attachment I for a sample of the PCHD Aberration Report). The data from the previous four years is used to establish a monthly mean and measurement of one and two standard deviations beyond the mean. This report is produced each month and allows the Epidemiology Program to visualize expected disease patterns from month to month and determine if a disease is exceeding the expected average.

2. Disease Statistics

The Epidemiology Program produces a monthly communicable disease summary comparing select disease counts for the current month to the same month in the previous year. This report is distributed to health partners only (e.g. emergency departments, Infection Preventionists (IPs), urgent cares) as part of the PCHD Monthly Surveillance Report. A year-to-date disease summary is generated for the EpiReport comparing the current year to the same time period in the previous year. This report is distributed quarterly to community and health partners (e.g. private practices, colleges, schools, universities, military facility).

Of the 89 reportable diseases only 9 occur frequently in Pima County, defined as at least 5 cases per month. Fifteen reportable diseases typically have fewer than five cases per month but are still reported on a regular basis Pima County. These diseases are difficult to measure statistically due to the small number of cases but are observed for an increase in the expected number of cases through the monthly and year-to-date summaries. The majority of communicable diseases occur rarely or not at all in Pima County. For many of these diseases only one of two cases are necessary to trigger an outbreak response, including communicable diseases believed eradicated through vaccine and those with severe outcomes.

3. Food-borne Diseases

The threshold for a suspected food-borne outbreak requires that only "two or more persons experience a similar illness after ingestion of a common food, and epidemiological analysis implicates the food as the source of the illness" according to the ADHS Case Definitions Manual (<u>http://www.azdhs.gov/phs/oids/epi/surv_manual.htm</u>). There are two exceptions: one case of botulism or chemical poisoning constitutes an outbreak. The ADHS Case Definitions Manual and Foodborne and Waterborne Disease Outbreak Investigation Resource Manual provide disease specific information and serve as field guides for epidemiological investigations of infectious diseases and prevention and control of epidemics.

4. 10% Threshold for Facilities with Endemic Illness

Institutions such as child care facilities, schools, and long-term care facilities tend to have some circulating illness at any given time. However, they do serve populations that are higher-risk for complications for many diseases and are therefore required by law to report disease activity that

exceeds normal levels. Because many of these facilities may lack the resources to determine baseline measures for comparison of current disease activity, a commonly used threshold of 10% of their population ill with similar symptoms is employed to differentiate between an outbreak and the expected level of disease. However, these facilities are always encouraged to contact the Epidemiology Program via telephone with any unusual disease presentations.

5. Diseases of Special Interest

Occasionally circumstances may require special monitoring for a disease, such as during 2009 Novel H1N1 Influenza A (Swine Influenza). Due to the emergence of this new flu strain special surveillance and thresholds were developed. Because flu is a disease that is common and not reportable except by laboratories, thresholds had not previously been developed. A surveillance system was implemented to capture flu-like illness in hospitals, clinics, schools, and through mortality and laboratory data, with thresholds of significant increases from week to week and in consideration of historical data.

6. Reportable Outbreaks

Of the 89 reportable diseases, 14 require providers to report detected outbreaks. This requirement does not specify what an outbreak is, but necessitates providers to communicate with the Epidemiology Program about suspect disease activity. This serves not only as an important community surveillance device but also as a community-level gauge for disease activity that exceeds expectations.

ADHS Threshold Monitoring and Reports

ADHS Infectious Disease Epidemiology performs disease monitoring on a state and national level in conjunction with the Centers for Disease Control and Prevention (CDC). This work is critical in identifying disseminated disease outbreaks that could not be captured through local disease monitoring. ADHS provides their disease monitoring and surveillance every other week through the EpiAZ report via email to local Health Departments, which includes the information described below.

1. ADHS Aberration Report

This report uses MEDSIS data and is based off of MMWR methodology comparing cases from the past 4 weeks to the mean number of cases in the previous five years (including eight weeks prior and four future weeks). The historical mean for the included weeks in the past five years is calculated (15 blocks of 4 weeks). The historical limits are calculated (1 ± 2 *standard deviation/mean). The current data is shown as a ratio of 4-week count/historic mean. The ratio is used and plotted on logarithmic scale. If the current cases equal the historic mean then the ratio is 1. Current cases that are twice the historical mean and current cases that are half the historic mean will show as equal length bars to the right and left of 1 (see Attachment J ADHS Aberration Report).

This statewide aberration report identifies if the current cases are outside historical limit (above or below) and is updated by ADHS epidemiology staff and sent to county partners every other week through EpiAZ via email. Epidemiologists at ADHS examine any disease elevation and determine whether or not it is attributed to a true excess of normal capacity.

2. PFGE Reports

The purpose of the PFGE (Pulsed Field Gel Electrophoresis) reports is to monitor trends in Salmonella serogroups in Arizona and identify outbreaks of Salmonella by utilizing PFGE patterns, and to link laboratory data with epidemiology data to improve tracking of outbreaks. There are four reports included (see below) and are sent to counties via email every other week:

- 1. Year-to-date PFGE counts per Salmonella serotype match
- 2. Year-to-date PFGE counts per Salmonella serotype/pattern match

3. Aberration detection of Salmonella serotypes and PFGE patterns using results from the past 30 days compared to the same time period for 2007 and 2008. This report compares an increase or decrease in numbers of serotypes and PFGE patterns from the current month to the same period last year. Any difference that is \geq 2 will appear on the aberration graph.

4. Aberration detection of Salmonella serotypes and PFGE patterns, comparing Group I to Group II. Group I includes today to 3 months prior while Group II includes 3 months prior to 6 months prior. This report detects any differences \geq 4 between the two above groups

3. Disease Statistics

Monthly and year-to-date infectious disease statistics are generated by ADHS epidemiology staff and posted on the ADHS website for counties to use:

http://www.azdhs.gov/phs/oids/data_reports.htm. The monthly communicable disease summary compares certain infectious diseases for the current month to the same month for the previous year, as well as the five year median for that infectious disease. The year-to-date disease summary compares the same infectious diseases as in the above report for the current year-to-date to the same time period the previous year, as well as the five year median for that infectious disease for the same time period.

4. Top 20 Morbidities Report

This report compares the top 20 infectious disease morbidities by month for the previous two years and provides the total number of cases for each year. This report determines if the number of cases for each of the top 20 infectious diseases in Arizona have increased month-to-month as well as compared to the same month the previous year. ADHS epidemiology staff updates and posts this report on the ADHS website monthly.

5. Annual Incidence Data

The following yearly incidence stats for reportable infectious diseases are produced annually and posted on the ADHS website (<u>www.azdhs.gov/phs/oids/data_reports.htm</u>)

1. Rates of Reported Cases of Notifiable Diseases by Year, Last 10 Years

2. Rates of Reported Cases of Selected Notifiable Diseases by 5 Year Age Groupings and Gender

3. Rates of Reported Cased of Notifiable Diseases by County

Pima County Health Department February 2010 Internal Disease Aberration Report

The following charts present historic data from 2006 – 2009 and current case information from 2010 by month for select reportable diseases. The mean and Standard Deviation (SD) were calculated using the 2006 – 2009 data. This purpose of this information is to observe disease trends within Pima County, and better determine when case expectations are exceeded. However, this data should be considered provisional and subject to change with further investigation. All case information if from MEDSIS using the Event Date (earliest known disease data).



Pima County Confirmed and Probable Campylobacteriosis Cases, 2006 - 2010

Mean and SD are from 2006 - 2009 cases, data is from 3/15/2010 MEDSIS extract



Pima County Confirmed and Probable Salmonellosis Cases, 2006-2010

Mean and SD based on 2006-2009 cases, data is from 3/15/2010 MEDSIS extract



Pima County Confirmed and Probable Shigellosis Cases, 2006 - 2010

Mean and SD based on 2006 - 2009 cases, data is from 3/15/2010 MEDSIS extract



Pima County Confirmed and Probable Coccidioidomycosis Cases, 2006 - 2010

Mean and SD based on 2006-2009 cases, data is from 3/15/2010 MEDSIS extract

* A change in lab reported cases occurred in June 2009 resulting in increased reporting



Pima County, Confirmed and Probable Streptococcus Pneumoniae Invasive Cases, 2006 - 2010

Mean and SD based on 2006 - 2009 cases, date is from 3/15/2010 MEDSIS extract

The following tables present historic data from 2006 – 2009 and current case information from 2010 by month for select reportable diseases. A total for each year and total cases through the current month are provided for comparison purposes. This data should be considered provisional and subject to change with further investigation

Pima County Confirmed and Probable Cases, 2006 - 2010

Amedia														
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	0	0	1	0	0	0	0	1	0	0	1	0	0	3
2007	1	0	0	0	0	0	0	1	0	1	0	1	1	4
2008	0	0	0	0	0	2	0	0	0	0	0	0	0	2
2009	0	1	3	0	1	0	1	0	0	1	0	2	1	9
2010	0	0											0	0

Amobiocic

Aseptic meningitis,

viral

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	2	1	3	2	4	4	3	4	12	5	1	1	3	42
2007	5	3	1	2	3	2	4	6	2	1	1	4	8	34
2008	1	0	3	2	0	2	4	5	7	6	3	3	1	36
2009	5	1	2	2	2	3	2	4	1	6	2	2	6	32
2010	3	2											5	5

Enterohemorrhagic E Coli (shiga toxin)

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	1	1	0	0	2	0	1	0	4	2	0	0	2	11
2007	3	1	0	4	3	2	3	1	1	2	0	0	4	20
2008	0	0	0	0	0	3	1	2	0	0	0	2	0	8
2009	0	0	0	0	1	0	3	0	1	0	0	1	0	6
2010	0	1											1	1

Giardiasis

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	5	3	5	7	7	6	5	9	7	3	4	9	8	70
2007	4	1	3	4	6	6	6	8	9	9	3	5	5	64
2008	2	4	1	3	3	3	6	10	13	6	2	3	6	56
2009	7	3	10	7	7	2	3	8	2	2	0	0	10	51
2010	1	0											1	1

H. flu: invasive disease

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	2	1	2	1	0	2	1	0	3	0	0	3	3	15
2007	2	6	0	0	0	0	0	0	0	1	0	0	8	9
2008	3	3	2	0	2	3	0	1	0	0	2	1	6	17
2009	1	1	0	0	1	1	1	0	1	0	2	1	2	9
2010	0	3											3	3

Hepatitis A

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	1	3	3	1	2	2	2	4	2	7	4	4	4	35
2007	3	5	1	3	1	2	0	2	2	1	1	2	8	23
2008	0	2	0	2	2	2	0	1	3	0	2	0	2	14
2009	0	0	0	1	0	3	1	1	3	1	4	2	0	16
2010	1	0											1	1

Pertussis

	1.					_		_	_			_	Totals	Yearly
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan-Feb	Totals
2006	3	7	5	0	1	1	4	4	1	2	1	0	10	29
2007	2	0	0	1	1	0	2	1	1	0	2	0	2	10
2008	0	1	0	0	0	0	0	1	0	0	1	1	1	4
2009	1	4	2	2	1	1	3	3	3	1	2	1	5	24
2010	0	0											0	0

Strep Group A: invasive disease

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	6	8	12	8	11	3	4	3	6	2	7	8	14	78
2007	6	6	6	5	3	2	4	5	1	2	1	3	12	44
2008	2	2	3	2	3	3	1	2	3	1	0	3	4	25
2009	4	4	5	5	3	2	3	3	1	2	3	7	8	42
2010	4	1											5	5

Strep Group B: invasive disease infants <90 days

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	0	0	0	0	1	0	0	0	1	1	0	2	0	5
2007	1	1	1	1	1	0	0	0	0	0	1	0	2	6
2008	2	1	0	1	1	2	0	1	1	1	1	1	3	12
2009	0	2	1	0	0	0	1	2	1	1	1	2	2	11
2010	0	1											1	1

VVIVV														
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Totals Jan-Feb	Yearly Totals
2006	0	0	0	0	0	0	2	6	19	17	2	0	0	46
2007	0	0	0	0	0	0	0	3	9	2	0	1	0	15
2008	0	0	0	0	0	0	1	1	9	2	0	0	0	13
2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2010	0	0											0	0

WNV
Process for Reporting Novel H1N1 Influenza A Surveillance Data

DCES Surveillance Epidemiologist reports both Seasonal Influenza and Novel H1N1 Influenza A surveillance information via a weekly surveillance report. Dissemination of the surveillance report may change to daily to respond to changes with Novel H1N1 Influenza A, (See PCHD Surveillance Communications Plan located at S:\Epidemiology\SwineFlu\Protocols & Guidance\Surveillance for more details).

The H1N1 surveillance elements mentioned in the table below include both active and passive surveillance resources that will be synthesized into a weekly report. The report will review and summarize all aspects of the surveillance system and report changes in flu activity by comparing the current week to 1) the previous week, 2) the average of the previous four weeks, and 3) historical data for the same week when available. These comparisons will inform the Pima County Health Department and our stakeholders of Novel H1N1 Influenza A activity in our community, including Pima County area hospitals and Emergency Departments, our partners in the Office of Border Health, the University of Arizona Student Health Center, the Davis-Monthan Air Force Base, Infection Control Practitioners from Pima County area hospitals, and the Tohono O'odham Nation.

Data	Description	Key Limitations	Source
Sentinel Sites	CDC surveillance system detailing patients seen at participating providers with ILI. Providers submit directly to CDC, submit those ill by age group and the total number of patients per week.	 Sporadic reporting, done when providers have time (often up to 2 weeks behind) Only 3 of the sites appear to have consistent reporting and are included within this analysis 	http://www2.ncid.cdc.gov/flu/ * Have to log in for each site individually; not able to obtain all site info in one location
Tucson Flu/Pneumonia Mortality Data	CDC surveillance system in 122 Cities across the US. Collects total number of deaths in Tucson by age group and total number of deaths from flu & pneumonia	 Data is collected on the day registered with PCHD, so is typically delayed by a couple of days. Collects deaths in Tucson only (not Dime Coupty on a whole) 	http://wonder.cdc.gov/mmwr/mmwrmort. asp * Next day counts are also available through and or
MEDSIS	Disease Investigation System managed by ADHS. Flu tests done at ASL are entered, including any typing, and some providers enter flu tests as well.	 Flu is not a reportable disease, so information in this system is limited. More flu tests have been conducted this year, so historic data is not comparable. 	https://login.siren.az.gov/sso/ * Need a user name and log in
Hospital ED data	Several local hospitals provide the number of ED visits and the number of ED visits for flu for comparison. Most provide totals; TMC provides raw data that is they analyzed. *Also have 2007 data from TMC	 Cleaning the dataset for analysis is a bit time-consuming There is a time-delay before the data is shared, so timeliness will lag 	TMC ICP office: data is emailed via SIREN by the second se
RODS	Monitors the sale of over-the- counter medications. Typically indicates 66 stores reporting from the Tucson area. Distinguishes between regular purchases and "sale" items.	 Aggregate data is available, so unable to determine how consistent store reporting really is 	https://www.rods.pitt.edu/rods/ * Need a user name and log in
IHS hospital and clinics	Total number of ED and clinic patients, and total number of ED and clinic patients with ILI.	 This is a time-delay of several days, data is provided once a week 	Data is emailed from
TUSD School data	Abseentism for all schools K-12 in TUSD school system. Data is grouped by syndromes; for ILI includes descriptions of cold and flu	 Data is continually updated, so will need to continually update 	http://tusdstats.tusd.k12.az.us/paweb/a ggd/attendance/reason.aspx?yr=10≻ h=000

Pima County Health Department Fall 2009 Flu Surveillance Data Sources



Pima County Health Department



Dear Provider,

Mumps has been identified in one Pima County resident with travel to Iowa. Mumps has been identified at this time in multiple states; New York, New Jersey, Iowa, Nebraska, California. **Please share with all who may need this information.**

Please continue to consider mumps in the differential diagnosis of patients exhibiting unilateral or bilateral parotitis in the absence of another known cause (Parotitis can also be caused by parainfluenza virus types 1 and 3, influenza A virus, Coxsackie A virus, echovirus, lymphocytic choriomeningitis virus, human immunodeficiency virus, and other non-infectious causes such as drugs, tumors, immunologic diseases, and obstruction of the salivary duct.). Please contact the Pima County Health Department at **Exercise**, Monday to Friday, 8am to 5pm or at **Exercise**, nights and weekends if you suspect mumps in one of your patients.

Healthcare personnel providing care to suspected mumps patients should follow Standard and Droplet Precautions.

- Plan to separate coughing or ill patients in the waiting area or have a separate area designated.
- Have a procedure or surgical masks for coughing patients readily available. Have disposable tissues readily available.
- This is the ideal time to determine immune status of personnel, either documentation of two MMRs, a positive mumps IgG or history of physician diagnosed mumps, or birth before 1957. If vaccination status is not adequate, vaccinate with MMR unless contraindicated. Susceptible personnel who have been exposed must be kept from direct patient contact through the 25th day after the last exposure.
- Don't forget it is also important to know the immune status of measles and other vaccine preventable diseases.

Healthcare workers is defined as ANYONE working in the healthcare setting, including night time housekeepers.

• Screen individuals for mumps symptoms when calling-in for an appointment. If clinically compatible with mumps, do not allow them to sit in the waiting area for prolonged periods of time and keep them at least three feet from other patients. Request that they wear a procedure or surgical mask.

If you suspect mumps, and arrange for lab work, please call the Health Department to report the suspected case right away – **do not wait for labs to return.** For outpatient settings, please contact the laboratory drawing station **PRIOR** to sending your patient. Please inform the drawing station that you suspect mumps infection to ensure appropriate precautions are used.

A buccal or throat swab specimen for viral culture and PCR and a blood specimen for IgM should be collected as soon as possible from all patients with clinical symptoms consistent with mumps. The early collection of buccal swab specimens provides the best means of laboratory confirmation. The buccal swab needs to be collected using a swab and placed in a transport container containing Hanks Buffered Saline Solution. Synthetic swabs are preferred over cotton swabs. **Swabs with cotton tips and wooden shafts or calcium aginate are not appropriate for viral culture.** The specimen should be stored at -70oC if it cannot be inoculated within 48 hours. Transport to Arizona State Laboratory on ice packs or wet ice. **Ship BOTH samples to:**

> Arizona Department of Health Services Bureau of State Laboratory Services

All samples must be accompanied by a laboratory submission form. Otherwise, results may not be conveyed to your facility.

Thank you.

Mumps Disease Management and Investigative Guidelines

CASE DEFINITION (ADHS March 2010)

A. Case Definition

Clinical Case Definition: An illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland, lasting \geq 2 days, and without other apparent cause.

Clinically Compatible Illness: Infection with mumps virus may present as aseptic meningitis, encephalitis, hearing loss, orchitis, oophoritis, parotitis or other salivary gland swelling, mastitis or pancreatitis.

B. Laboratory Criteria for Case Classification

- Isolation of mumps virus from clinical specimen (Gold standard)
- Detection of mumps nucleic acid (e.g., standard or real time PCR assay)
- Detection of mumps IgM antibody
- Demonstration of specific mumps antibody response in absence of recent vaccination, either a four-fold increase in IgG titer as measured by quantitative assays, or a seroconversion from negative to positive using a standard serologic assay of paired acute and convalescent serums.

* Arizona State Lab (ASL) does not currently perform IgG testing.

Comment: With previous mumps virus contact through natural infection or vaccination, mumps IgM test results may be negative; IgG test results positive and viral detection in RT-PCR or culture may have low yield. Interpret serologic tests with caution; false-positives and false-negatives are possible with IgM tests. *Mumps cases cannot be ruled out by negative lab results alone.*

C. Case Classification

<u>Confirmed</u>: A case that meets the clinical case definition or has clinically compatible illness, and is either laboratory confirmed or is epidemiologically linked to a confirmed case.

<u>Probable</u>: A case that meets the clinical case definition without laboratory confirmation and is epidemiologically linked to a clinically compatible case.

<u>Suspect</u>: A case with clinically compatible illness or that meets the clinical case definition without laboratory testing, or a case with laboratory tests suggestive of mumps without clinical information.

D. Laboratory Testing

Gold Standard: Culture

Notes: Parainfluenza viruses 1, 2, and 3, Epstein-Barr virus, adenovirus, and human herpesvirus 6 have all been noted to interfere with mumps serologic assays (Davidkin et al. 2005) producing false-positives.

Test	Specimen & Transport	Collection Time		
Culture & PCR	Buccal and Throat Swabs transported in Hanks or Viral Transport Media	 Yields the best viral sample, especially when salivary gland area is massaged about 30 seconds prior to swabbing. Collect as soon as possible after onset of parotitis or meningitis, ideal within 3 days of parotitis and not more than 10 days after parotitis onset. 		
		 In previously vaccinated person the specimen should be collected within 1-3 days after onset of parotitis. 		
IgM	Serology collected in a red top tube	 In unvaccinated persons, is detectable within 5 days after onset of symptoms and peaks about 1 week after onset; will remain elevated for several weeks 		
		 The timing of the IgM response to mumps infection in vaccinated persons is highly variable and may be absent, delayed, or transient and easily missed (false-negative). 		

Confirmatory Testing: Specimens must be sent to the Arizona State Laboratory (ASL) for confirmation; for testing to occur at the state laboratory, all case information should be reported to **Example 1**.

- For additional information concerning collection and transport refer to online guidance at http://www.azdhs.gov/lab/micro/labguide.pdf.
- ASL no longer tests urine for mumps.

E. Bioterrorism Potential: None.

F. Outbreak Definition:

An outbreak is defined as \geq 2 cases occurring within a 4-week period, or sustained transmission (i.e., \geq 2 transmission cycles) occurring at a daycare, school, college or university.

INVESTIGATOR RESPONSIBILITIES

Investigational activities should begin as soon as possible. Control measures should be initiated within 24 hours of initial report.

1) Confirm diagnosis using case definition with appropriate medical provider.

- Before contacting the patient, discuss what the patient has been told about his/her evaluation for disease.
- Obtain information that supports clinical findings in the case definition and information on symptom onset. (i.e., duration of parotitis).
- Obtain information on any laboratory tests performed and results.
 - If symptom onset was less then three days prior and culture tests have not been done, coordinate testing of buccal or throat swabs.
 - If more than three days have past since symptom onset and no laboratory tests have been done, coordinate serology testing for acute IgM.
- If patient hospitalized, obtain medical records, including admission notes, progress notes, lab report(s), and discharge summary.

2) <u>Conduct Case Investigation</u> - Identify potential Source of Infection.

- Collect information as specified on the CDR and DSO.
- Identify potential for a major public health concern, such as an under-immunized population within the community.
- Distinguish between failure to vaccinate and vaccine failure.
- Focus within the incubation period of 14-21 days prior to cough onset
 - Known exposure to another case within incubation period. Obtain dates of exposure, relationship to case, transmission setting, and name with date of birth of possible sources.
 - Epi-links: With name and date of birth of possible sources search for previous reports filed with state. Note the state investigation ID number for cases previously reported. Highly suspected sources not previously reported should be investigated as a case and reported.

3) <u>Conduct Contact Investigation</u> to Locate Exposed Individuals/Populations. Consider those in contact with case 3 days before to 5 days after onset of swelling.

- Examine a case's occupation and activities; especially involvement with students and direct patient care.
- There are several types of contacts to consider when dealing with a mumps investigation, they include:
 - General: Household and close contacts of a case.
 - Daycare: All direct caregivers and classmates of a case.
 - School: All close personal contacts, educators and classmates of case.
 - Work: Coworkers sharing the same workspace of a case.
- Identify high-risk susceptible contacts of the case during infectious period; these include:
 - Pregnant women should be referred to their obstetrician.
 - o Immunosuppressed individuals referred to their healthcare provider.

- Infants <12 months of age referred to their pediatrician.
- Identify all other susceptible contacts. These are individuals without proof of immunity, including those with medical or religious exemptions to immunization. Proof of immunity is defined as:
 - Birth in the US before 1957
 - Serologic evidence of mumps immunity
 - Documentation of physician-diagnosed mumps
 - Documentation of ≥ 1 dose mumps containing vaccine on or after first birthday.
- Follow-up with susceptible contacts as indicated in Contact Management
- Follow-up symptomatic contacts as cases.

4) Initiate Control and Prevention Measures

- Provide education that includes basic information about the disease and its complications and ways to treat and prevent transmission of illness, including instructions on the necessary isolation measures for cases.
 - Discuss possible ovary and testicular involvement with post-puberty cases and possible CNS and pancreatic involvement with all cases.
- If needed, work with appropriate administrative personnel to initiate work and school restrictions for high-risk cases and/or contacts (i.e., school or daycare provider/attendee, direct patient care provider).
- Follow-up with case(s) and contacts to assure compliance with work and/or school restrictions.
- Initiate active surveillance for a period of 25 days after the last known exposure to a case.
- Counsel contacts to watch for signs or symptoms of mumps occurring within 21 days of exposure. Should symptoms develop, medical care should be sought promptly and appropriate specimens taken.

5) Isolation, Work and Daycare Restrictions

• School and Childcare Settings:

- 1) Per A.A.C R9-6-353, exclude a mumps case from the school or child care establishment and school- or childcare-establishment-sponsored events for five calendar days after the onset of glandular swelling, and
- 2) Exclude a mumps suspect case from the school or child care establishment and from school- or childcare-establishment-sponsored events until evaluated and determined to be noninfectious by a physician, physician assistant, or registered nurse practitioner.
- 3) The Local Health Agency determines who to exclude from a School or Childcare and who to advise to obtain immunization. Susceptible contacts will be excluded for 26 days after the onset of the last reported mumps case, or they can receive mumps vaccination and return to the school/child care facility.

Hospital Settings:

 Per A.A.C. R9-6-353, healthcare provides should isolate and institute droplet precautions for a mumps case for five calendar days after onset of glandular swelling. 2) An administrator of a health care institution shall ensure that a paid or volunteer full-time or part-time worker at a health care institution does not participate in the direct care of a mumps case or suspect case unless the worker is able to provide evidence of immunity to mumps through one of the following:

a. A record of immunization against mumps with two doses of live virus vaccine given on or after the first birthday and at least one month apart; or b. A statement signed by a physician, physician assistant, registered nurse practitioner, state health officer, or local health officer affirming serologic evidence of immunity to mumps.

• Work Settings:

1) Exclude case from work for 5 days from onset date

6) Case Management, Including Follow-up of Cases

- Case isolation inside a household is not usually feasible, but cases should still refrain from contact outside of the household for five days from the onset of glandular swelling.
- Initiate outbreak control measures appropriate to setting.
- Follow-up to assure compliance with control measures

7) Contact Management, Including Protection of Contacts

- Recommend immunization to all susceptible contacts immediately. Mumps vaccination has not been shown to be effective in preventing mumps in persons already infected but will prevent infection from subsequent exposures.
- Immune globulin (IG) is of no value as post-exposure prophylaxis and is not recommended.
- Provide education to susceptible contacts on the benefits of vaccination, incubation period and symptoms of disease and precautions to take if symptoms develop.
- Follow-up of contacts that have been excluded from daycare, school, or work is indicated to determine compliance of control measures.
- Monitor household and other close susceptible contacts for symptoms for 21 days after onset of the last confirmed or suspected case, even if immunized after contact, as new cases might still occur.
- Symptomatic contact meeting clinical case definition are a probable case; investigate and report to the state; initiate any work / school restrictions.

8) Environmental Measures

Disinfect utensils and fomites soiled with nasal and/or oral secretions as well as articles contaminated with urine.

9) Notifications

- Report all cases to the Local Health Officer within one hour of initial report.
- Report all confirmed, probable and suspect cases to ADHS within one working day of the initial report (

• As appropriate, use the notification letter(s) and the disease fact sheet to notify the case, contacts and other individuals or groups.

EPIDEMIOLOGY

Mumps occurs worldwide and is endemic year-round with peaks in the winter and spring. In the United States the incidence of mumps has declined significantly since the vaccine was introduced in 1967. In 1986-87 there was a resurgence of mumps nationwide due to the absence of national standard immunization requirements and vaccine failure. The incidence of reported mumps cases reported has declined steadily since then due to the 2-dose MMR vaccination policy. Outbreaks still occur, most recently in Iowa in 2006 among college-age adults (mostly vaccinated) and in 2009-2010 among Hasidic Jews (largely unvaccinated) in New York.

DISEASE OVERVIEW

A. Agent:

Mumps is a member of the Paramyxoviridae family, genus Rabulavirus.

B. Clinical Description:

An acute viral disease distinguished by fever and swelling of one or more of the salivary glands (e.g., parotid, sublingual or submandibular glands). Asymptomatic cases occur in up to 20% of mumps infections. Additionally, 40-50% of cases may have nonspecific or primary respiratory infections, particularly among children under 5 years of age. Orchitis, usually unilateral, occurs in up to 40% of post-pubertal males and oophoritis in approximately 5% of post-pubertal females; sterility may occur but is extremely rare. Symptomatic meningitis occurs in up to 10% of cases. Pancreatitis, neuritis, arthritis, mastitis, nephritis, thyroiditis and pericarditis may occur. Mumps infection during the first trimester of pregnancy may increase the rate of spontaneous abortion but there is no firm evidence that mumps during pregnancy causes congenital malformations.

C. Reservoirs: Humans.

D. Mode(s) of Transmission:

Airborne transmission or droplet spread, direct contact with the saliva of an infected person

E. Incubation Period:

Range 12-25 days; average 16-18 days.

F. Period of Communicability:

The virus has been isolated from saliva from 7 days before onset of parotitis and 9 nine days after. Maximum infectiousness occurs between 2 days before and 4 days after onset of parotitis. Asymptomatic infections can be communicable.

G. Susceptibility and Resistance:

Immunity is life-long and develops after clinical or in apparent infections. Adults born before 1957 are likely to have been infected naturally and are considered immune.

H. Treatment: Supportive only. Additional Information & References

Treatment / Differential Diagnosis: American Academy of Pediatrics. 2009 Red Book: Report of the Committee on Infectious Disease, 28th Edition. Illinois, Academy of Pediatrics, 2009, p 468-472

Epidemiology, Investigation and Control: Heymann. D., ed., Control of Communicable Diseases Manual, 19th Edition. Washington, DC, American Public Health Association, 2008, p 431-434

Case Definitions: ADHS Case Definitions for Reportable Communicable Morbidities, March 2010, available at: <u>http://www.azdhs.gov/phs/oids/pdf/casedefinitions.pdf</u>

Arizona Regulations/Statutes Related to Infectious Disease, available at: <u>http://www.azsos.gov/public_services/Title_09/9-06.pdf</u>

Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP) for the Control and Elimination of Mumps. MMWR, June 9, 2006: Vol 55; 629-630. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5522a4.htm?s_cid=mm5522a4_e

Manual for the Surveillance of Vaccine-Preventable Diseases: Available at: http://www.cdc.gov/vaccines/pubs/surv-manual/default.htm .

Pink Book: Epidemiology and Prevention of Vaccine-Preventable Diseases. Available at: <u>http://www.cdc.gov/vaccines/pubs/pinkbook/default.htm</u>

Additional Information (CDC): <u>http://www.cdc.gov</u>

Epidemiology Disease Resources:

		Current	Document	
Document Name	Developed by	Date	Saved in	Located Online
General Guides				
AZ Communicable Diseases	AZ		Resources &	http://www.azsos.gov/public_service
Rules (AAC Title 9, Chp 6)	Administrative Codes		Contacts	s/Title_09/9-06.htm
Infectious Disease	ADHS		Resources &	http://www.azdhs.gov/phs/oids/epi/i
Investigation Manual			Contacts (as a weblink)	<u>nv manual.htm</u>
Case Definitions	ADHS	10/2008	Resources & Contacts	http://www.azdhs.gov/phs/oids/pdf/c asedefinitions.pdf
Investigation Forms	ADHS & CDC	Varies		http://www.azdhs.gov/phs/oids/epi/i nv_forms_pg.htm
Communicable Disease Report Form	ADHS	6/2009	Resources & Contacts	http://www.azdhs.gov/phs/oids/epi/p df/cdr_form.pdf
PCHD Protocol for Notifications of CMO	PCHD	7/29/08	Communication Protocols	
PCHD Diseases Protocols	PCHD	Varies	Disease Protocols and supporting docs	
PCHD Disease Reporting Procedure	PCHD		Communication Protocols	
Quick Reference to Investigational Forms	ADHS		Resources & Contacts	http://www.azdhs.gov/phs/oids/epi/p df/app3.doc
Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007	CDC	2007	N/A	http://www.cdc.gov/ncidod/dhqp/gl_i solation.html
Patient Isolation Precautions	ADHS		Resources & Contacts	http://www.azdhs.gov/phs/oids/epi/p df/app5.doc
Guide to Confirming the Diagnosis in Foodborne Diseases	ADHS		Resources & contacts	http://www.azdhs.gov/phs/oids/epi/p df/fb_conf_dx.doc
Rabies Manual	ADHS	11/29/06	Rabies	http://www.azdhs.gov/phs/oids/vect or/pdf/manual06.pdf
PCHD – WNV Protocol for CHFS (Vector Elimination and Education Referral Form)	PCHD	10/3/08	Disease Protocols/WNV	
PCHD – Protocol for Early Childhood Intervention referral	PCHD	10/3/08	Communication Protocols	
Outbreak Guides				
Guide to Conducting Outbreak Investigations for Arizona	ADHS		Resources & Contacts	http://www.azdhs.gov/phs/oids/epi/p df/guide.doc
Infectious Disease Investigation Manual (Outbreak Manual)	ADHS	Not Listed	N/A (Hard copy)	http://www.azdhs.gov/phs/oids/epi/i nv manual.htm

Outbreak Summary Form	ADHS		Resources & Contacts	http://www.azdhs.gov/phs/oids/epi/p df/outbreakreport.pdf
PCHD Guidelines – Disease Outbreak Procedures	PCHD	2/8/08	Resources & Contacts	
PCHD – Incident Command System Response to Outbreak Investigations	PCHD	10/17/07	Communication Protocols	
Maricopa Food and Water Outbreak Cookbook	MCHD	9/26/07	Resources & Contacts	
Bio Terrorism Guides				
Zebra Manual (BT Agents)	ADHS	9/7/04	Resources & Contacts	http://www.azdhs.gov/phs/edc/edrp/ Zebra.htm
Category A Bioterrorism Agents Quick Reference	ADHS		Resources & Contacts	http://www.azdhs.gov/phs/oids/epi/p df/bt_facts.doc
Lab Guides				
Instructions for Collecting Stool Specimens	ADHS		Laboratory Docs & Forms	http://www.azdhs.gov/phs/oids/epi/p df/fb_spec_coll.doc
AZ Guide to Lab Services: Microbiology	ADHS	7/1/09	Laboratory Docs & Forms	http://www.azdhs.gov/lab/micro/labg uide.pdf
ADHS Laboratory Submission Form	ADHS		Laboratory Docs & Forms	http://www.azdhs.gov/lab/micro/sub missionform3.pdf

Reference Books/Manuals:

- Control of Communicable Diseases Manual (APHA & WHO); 19th Ed., 2008
- Red Book 28th Ed., 2009
- Communicable Disease Flip Chart; 6th Ed., 2007 (Online: http://www.azdhs.gov/phs/owch/pdf/commdiseases.pdf)
- Epidemiology and Prevention of Vaccine-Preventable Diseases; 11th Ed., May 2009, (Pink Book) (http://www.cdc.gov/vaccines/pubs/pinkbook/default.htm)
- Manual for the Surveillance of Vaccine-Preventable Diseases, 4th Ed., 2008 (Online: http://www.cdc.gov/vaccines/Pubs/surv-manual/default.htm)
- Shipping, Transport, and Packaging of Infectious and Dangerous Goods Manual, 2007
- Sentinel Laboratory Guidelines for Suspected Agents of Bioterrorism, Packing and Shipping Infectious Substances, Diagnostic Specimens, and Biological Agents, 2003
- Handbook for Disaster Nursing and Emergency Preparedness- ReadyRN
- •

Remote Access

PCHD Web Mail Access: https://webmail.pima.gov/exchange (

We can also access mail via health department web page by clicking on Pima County Health Dept. on left hand side of page (under seal).

SIREN: <u>https://login.siren.az.gov/sso/</u>

MEDSIS: <u>https://health.azdhs.gov</u>

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Report to the Governor on H1N1 Influenza Preparedness and Response Activities



Arizona Department of Health Services Office of the Director

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A. Executive Summary

A.1 Background

The 2009 H1N1 Influenza Strain is expected to cause an increased number of illnesses during the upcoming fall influenza season. The Arizona Department of Health Services (ADHS) is partnering with stakeholders in both the public and private sector to reduce the impact of influenza during the upcoming influenza season by establishing and promoting mass vaccination programs and public education campaigns. In addition, ADHS will continue to lead the state in monitoring the impact of the 2009 H1N1 influenza to target intervention strategies and identify populations at unique risk of severe infection.

A.2 Goals

To minimize the public health impact of H1N1 influenza in Arizona by:

- Reducing the spread of influenza in Arizona communities.
- Minimizing disruption to critical infrastructure, including healthcare facilities.
- Developing evidence –based recommendations for institutions and businesses to reduce the impact and spread of influenza.

A.3 Key Assumptions

- Cases of influenza are expected to increase in September, triggering the start of the influenza season.
- H1N1 vaccine is anticipated in mid-October and will be available in limited shipments until later in the influenza season.
- Only one dose of H1N1 vaccine will be recommended for immunity for healthy adults. Sub populations (i.e. children) may require two doses for immunity.
- H1N1 vaccinations will need to be prioritized early in the vaccination campaign until adequate supplies are available.
- Seasonal influenza will continue to circulate and cause disease as in non-pandemic years.
- Seasonal vaccine supplies will meet previous demand and shipments are anticipated beginning in early September.

A.4 Key Activities

The following is a summary of actions being undertaken to lead the response to 2009 H1N1 in Arizona:

A.4.1 Immunizations

- ADHS convened the Vaccine Prioritization Advisory Committee to determine the priority groups for H1N1 vaccination. Participants included:
 - ✓ Arizona Local Health Officerrs Association representative
 - ✓ Arizona Medical Association representative
 - ✓ Arizona Hospital and Healthcare Association representative
 - ✓ Emergency Medical Services representative
 - ✓ Arizona Pharmacy Alliance representative
 - ✓ Arizona Academy of Pediatrics representative
 - ✓ Governor's Office representative
- The Immunizations Office is developing protocols for ordering and distributing H1N1 vaccine to local health departments and private providers.
- ADHS and local health departments are developing plans to prioritize vaccine distribution based upon public health needs and the populations served by each facility.
- The Department is partnering with Local Health Departments, Tribal Governments, and Indian Health Services to identify and register community healthcare providers to participate in vaccination campaigns.
- ADHS is revising the mass vaccination plan and engaging key stakeholders and local health departments to increase the number of vaccination sites for H1N1.
- Legal changes are being initiated to pharmacists to provide H1N1 vaccinations.
- Seasonal influenza vaccine is being disseminated to county health departments and Vaccines for Children (VFC) providers.

A.4.2 Communications

- Mass media campaigns are being developed to inform citizens of steps they can take to prevent influenza and prepare for absences from school or work due to influenza illness in the community.
- A Joint Information System has been established to integrate public information between local health departments and state agencies.
- The Health Alert Network system is being utilized to distribute guidance and updates to healthcare providers and local health departments.

• The Department is developing an influenza webpage and recorded 1-800 number hotline to share the most recent information of H1N1 influenza epidemiology, vaccinations, educational materials, guidance, and preparedness tools.

A.4.3 Surveillance

- Acquiring laboratory equipment to increase influenza testing capacity at the Arizona State Public Health Lab by 400%.
- ADHS will continue to monitor the morbidity and mortality of influenza to identify the communities being most impacted by influenza and to guide community mitigation strategies.

A.4.4 Planning and Community Partnerships

- Leading weekly communications with medical and hospital associations across the state to share the latest information on H1N1 in Arizona.
- Establishing recommendations for medical and educational institutions to minimize the impact and spread of influenza.
- Developing plans for continuity of operations for the Arizona Department of Health Services.
- Securing almost \$30M in additional federal funding to implement vaccination activities and respond to H1N1.
- Improving participation in public health campaigns by ensuring that legal issues are resolved.
 - ✓ Tort liability protection for the administration of the vaccine is covered under the Public Readiness and Emergency Preparedness (PREP) Act.

B. H1N1 Response Activities and Incident Command

The Arizona Department of Health Services has implemented an Incident Command Structure to support H1N1 response activities in Arizona. Incident Command is used to maximize coordination among programs and to engage all programs under a unified response structure. Response activities are divided into four major components: Operations, Planning, Logistics, and Finance.

B.1 Operations

B.1.1 Immunizations

The Centers for Disease Control and Prevention (CDC) have established a blended publicprivate strategy for ensuring that novel H1N1 influenza vaccine is made available nationwide. Vaccine will be distributed to public health departments and private providers for providing vaccinations to individuals in priority groups. Public health departments will ensure that vaccine priorities are addressed at the local level by assessing local needs and working closely with partners. County health departments may conduct mass vaccination clinics and/or other public health activities to ensure that their vulnerable populations are being reached. These public health activities may be conducted in coordination with private partners, such as community influenza vaccinators.

- H1N1 vaccine is anticipated to be shipped in mid-October. Arizona is expected to receive 900,000 doses in October and will continue to receive vaccine throughout the season, with an estimated 400,000 doses expected to be shipped each week.
- Eventually, enough vaccine is expected to be available for all individuals who desire to be vaccinated. Initial vaccine will be prioritized for those at highest risk of complications.
- CDC will provide vaccine free-of-charge and essential vaccination supplies, including syringes, will be provided with the vaccine. Vaccine can only be shipped in 100 dose allotments.
- Counties offering large-scale vaccination clinics will be prohibited from billing third party payers or charging patients for vaccine administration.
- The vaccine that arrives in Arizona in October will be prioritized for those at highest risk of severe disease or at risk of spreading disease to high risk persons, including:
 - Children 6 months through 4 years old;
 - Children 5 through 18 years of age who have chronic medical conditions;
 - o Pregnant women;
 - Caregivers of newborns; and
 - Health care and emergency medical services personnel with direct patient contact.

- Once the demand for vaccine for the prioritized groups has been met at the local level, providers should begin vaccinating the remainder of the population beginning with persons 25 through 64 years of age. Once vaccine demand among younger age groups has been met, providers should offer vaccination to persons 65 and older.
- Since seasonal influenza is expected to circulate in conjunction with the 2009 H1N1 Influenza Strain, ADHS is encouraging seasonal influenza immunizations to reduce the impact of influenza-like illness in the population and within the health system. Seasonal flu vaccinations are scheduled to begin in September and will target young children, the elderly, and individuals who are immunocompromised or have underlying medical conditions.

Activities

- ADHS is working with partners including county health departments and medical and nursing boards and associations to disseminate key messages to providers. In preparation for vaccine distribution, ADHS is educating pre-registered providers on:
 - ✓ vaccine safety and adverse events reporting;
 - ✓ the vaccine ordering and re-ordering process;
 - ✓ vaccine storage and handling;
 - ✓ priority groups for vaccination;
 - ✓ background information on the vaccine;
 - ✓ best practices for vaccine administration; and
 - ✓ financial, reimbursement, and legal issues.
- ADHS is conducting weekly conference calls with key stakeholders to maintain continuity of messaging, disseminate clear guidance, and assist in determining state and local vaccine strategies. Participants include:
 - ✓ County and Tribal Health Officers
 - ✓ Public Health Emergency Preparedness Coordinators
 - ✓ Immunization Coordinators
 - ✓ Directors of Nursing
 - ✓ Indian Health Services Area Offices
- Arizona Immunization Program Office (AIPO) staff participate on the National Association of County, City, and Territorial Health Officers (NACCHO) and the Association of Immunization Managers (AIM) calls discussing vaccine updates and addressing H1N1 vaccine planning.
- The Department is establishing plans for vaccine distribution and brokering of vaccine to ensure adequate supply of vaccine statewide.

- ADHS, in collaboration with county health departments and other partners, is providing H1N1 vaccine related information to the general public, which includes the media, policy makers, and government employees. Messages are communicated to the public through press releases, news media interviews, ADHS social media sites (Facebook, Twitter), and the ADHS website. These messages encourage H1N1 vaccination and cover a number of topics including:
 - ✓ where to get vaccinated;
 - ✓ vaccine background information;
 - ✓ vaccine safety;
 - ✓ priority groups for vaccination;
 - ✓ infection control precautions; and
 - ✓ links and resources for more information.
- ADHS is working with local health departments to define vaccination planning activities related to novel H1N1 influenza immunization. These include:
 - ✓ Meeting with school nurses to prepare for school mass vaccination clinics;
 - ✓ Meeting with healthcare workers to discuss H1N1 vaccine delivery;
 - Delivering informational and educational presentations in their communities on surveillance, vaccination, and vaccine target groups;
 - ✓ Working with school districts on preparedness plans for their schools;
 - Collaborating with childcare consultants to pass H1N1 vaccine information to child care centers;
 - Communicating and collaborating with community vaccinators, such as private/mobile clinics, public fire departments, and occupational health businesses, to assist with vaccine delivery in their communities;
 - Educating community groups to prevent influenza illness, identify where to get vaccinated, and share information about how to manage H1N1 illness if infected;
 - Encouraging hospitals and health care providers to register for H1N1 vaccine; and
 - ✓ Developing plans including staffing plans for mass vaccination clinics.
- The ADHS Immunizations Program Medical Officer will monitor adverse events following H1N1 immunization.
 - All providers will be encouraged to report clinically significant adverse events following H1N1 vaccination directly to the Vaccine Adverse Event Reporting System (VAERS).
- ADHS staff will participate in the CDC's Vaccine Safety Datalink (VSD) to monitor adverse events related to H1N1 vaccination.

- ✓ VSD is a collaborative effort between CDC and eight large managed care organizations (MCOs) representing approximately 3% of the U.S. population to monitor managed care data for selected medical conditions that could be associated with vaccination.
- Vaccine safety updates will be disseminated to provider and partner organizations as necessary, using the current Health Alert Notice communication network.
- The 2009 H1N1 Influenza Vaccination Operational Plan is included in Appendix A.

Timeline

September

- Pre-registration of H1N1 vaccine providers.
- AIPO will review the reports to identify and obtain missing information, verify contact information provided, remove duplicate registrations, and determine which providers are registered with the Vaccines for Children (VFC) program.
- Develop and distribute H1N1 ordering paperwork and supporting documentation to registered providers. This includes:
 - ✓ Ordering form
 - ✓ Provider Agreement
 - ✓ Dose administration reporting form
 - ✓ Vaccine storage and handling requirements
 - ✓ Vaccine safety information
 - Instructions for enrolling in the Arizona State Immunization Information System (ASIIS)
- ADHS must review, sign and submit an Assurance of Conformance form to CDC assuring that the provider agreement meets CDC requirements.
- Distribute weekly updates on H1N1 vaccination program to registered providers
- Begin seasonal influenza immunizations.

October

- Finalize vaccination plans and prioritization scheme for available vaccine, based on current epidemiology and distribution of priority groups.
- Initiate plans for mass vaccination clinics.
- Based on availability, order and distribute vaccine to local health departments and selected health care providers.
- Send aggregate reports on total doses of vaccine administered in Arizona to CDC.

November

- Continue to monitor the demand and administration of vaccine to identify the need for vaccine brokering.
- Providers can re-order vaccine using the same ordering process.
- As supply of vaccine increases, expand vaccine priority groups to adults with underlying conditions (and eventually to the general public).

December

• Mass vaccination clinics for general public, including state employees.

B.1.2 Surveillance

B.1.2.1. Arizona State Public Health Laboratory

The Arizona State Public Health Laboratory (ASPHL) is continuing to conduct surveillance for influenza under the Food and Drug Administrations Emergency Use Authorization (EUA) for H1N1 influenza. The laboratory is preparing for an additional surge in influenza testing by conducting the followint activities:

- The Laboratory is ordering additional equipment to increase our testing capacity from 80 to 400 tests per day as part of a multi-shift testing protocol.
- The Laboratory is identifying laboratory staff at other agencies and providing crosstraining on influenza testing methods to provide continuity of operations during staff absences and to increase testing capacity.
- Data entry staff across ADHS are being trained on ASPHL protocols to provide additional resources for specimen processing and entry of results into the state lab database (StarLIMS).
- The Laboratory is initiating electronic test results reporting to providers in Arizona and partnering with Maricopa County to ensure healthcare providers receive laboratory results as soon as possible.
- Materials for influenza specimen collection have been acquired to provide to healthcare providers, since demand for commercially supplied collection kits exceeded available supply during the last flu season.
- The Laboratory is working with the Translational Genomic Institute (TGen) North in Flagstaff for assistance with antiviral resistance testing for positive H1N1 samples.
- ADHS is developing protocols to restrict to more severe cases if the number of test requests exceeds available resources (this includes plans for potential rationing of federal testing supplies).

 The Arizona State Public Health Laboratory will be working with with 3 clinical laboratories to validate their newly developed molecular testing for H1N1 influenza. These labs can provide additional H1N1 testing in Arizona during peak periods of illness.

B.1.2.2. Human Surveillance and Epidemiology

The statewide influenza disease surveillance system is coordinated and maintained by the ADHS Office of Infectious Disease Services (OIDS). While some parts of the surveillance system are designed to discern information on confirmed cases of H1N1, the majority of influenza cases are not diagnosed or tested. Therefore, surveillance for all influenza-like illness is critical to understanding the impact of influenza in the state. The following activities are being conducted to identify the impact of H1N1 influenza and to characterize the current epidemiology in Arizona.

- Monitoring influenza-like illness (ILI) using sentinel providers around the state who provide weekly reports on the number and percentage of patients who are visiting their site with ILI.
- Investigating hospitalized H1N1 cases to monitor populations at greatest risk of severe disease and changes in severity.
- Continue to work with local health departments to monitor and investigate reported H1N1 deaths for changes to patterns of mortality and to identify presence of underlying conditions.
- Pediatric influenza-associated deaths are identified from VSIMS and followed up for confirmation. ADHS works with local health departments to investigate any reports of pediatric influenza-associated illness.
- ADHS is monitoring the number of influenza and pneumonia deaths weekly to compare the number of deaths for the current influenza season compared with previous influenza seasons.
 - ✓ ADHS will determine whether the mean number of deaths for that period is within, lower, or higher than the historical (previous influenza seasons) mean limits to identify changes in severity.



Influenza & pneumonia mortality from death certificate surveillance, by influenza season & week of death. Information for the 2008/2009 influenza season is through August 29th 2009.

- The Office of Border Health and CDC are initiating a Border Infectious Disease Surveillance (BIDS) project to conduct active surveillance for patients hospitalized with severe acute respiratory infections in sentinel hospitals in the border region, initially in Pima County. This effort will determine the proportion of confirmed influenza cases among these patients and the strains of influenza causing illness among hospitalized patients.
- A program called "BioSense" is used to detect aberrations in the number of respiratory admissions in eight hospitals in the state. Data from these hospitals are sent weekly to CDC as one indicator of influenza activity in the state.
- OIDS analyzes data for influenza-like illness visits to the school nurse's office in approximately 320 schools in the state and looks for changes in the pattern of visits for influenza-like illness.
- Distributing H1N1 surveillance reports to healthcare providers and local health departments. These reports include the number of confirmed cases and deaths, age distribution, measures of severity, and other surveillance indicators.

B.1.2.3. Medical Electronic Disease Surveillance Intelligence System and Electronic Laboratory Reporting

ADHS's Medical Electronic Disease Surveillance Intelligence System (MEDSIS) is an instrumental component of Arizona's H1N1 response. MEDSIS is a web-based system used by ADHS, Local Health Departments, hospitals, and the State of Sonora, Mexico to report, investigate and track many of Arizona's reportable infectious diseases, including influenza. The MEDSIS database is analyzed to monitor changes in the number of people reported with influenza, which populations in Arizona are affected, and the severity of the disease. These factors are tracked over time and provide important information for Arizona's H1N1 response activities.

- Influenza reports for Mexican residents or Arizona residents tested in Mexico are entered into MEDSIS and can be reviewed in real-time by ADHS and the Ministry of Health in Sonora.
- Local Health Departments can review information on H1N1 cases tested at the state lab as soon as they are entered in MEDSIS.
- ADHS is initiating Electronic Laboratory Reporting (ELR) which will allow labs to transmit data directly into MEDSIS, which will decrease the time required to identify and report cases to Local Health Departments.

B.1.2.4. Unexplained Death Investigations

Health care providers (including hospitals and medical examiners (ME)) are required to report unexplained deaths with a history of fever (UNEX) to their local health department within 24 hours of detection (A.A.C. R9-6-202), after which the local health agency must notify ADHS and initiate an investigation (A.A.C. R9-6-384). The purpose of these UNEX investigations is to identify deaths that might be of public health significance in order to prevent the spread of disease. This could include deaths that are due to infectious diseases transmitted person-to-person, those that require a public health intervention, that represent a new or emerging infection or that are due to an act of terrorism. These investigations involve close collaboration and coordination with outside health agencies including healthcare facilities and the medical examiners (ME) in various counties.

- ADHS is holding quarterly meetings with MEs and hospital pathologists to discuss H1N1 influenza virus and share updated guidance regarding notification of suspect deaths to public health agencies and specimen collection and transport guidance.
- ADHS is using this UNEX surveillance system as a means for detecting acute respiratory deaths due to the 2009 H1N1 influenza virus.
- The department has updated resources for MEs, including developing recommendations for specimen collection and laboratory testing .
- ADHS UNEX epidemiologist within the Infectious Disease Epidemiology and Investigations Program sends out monthly UNEX reports to MEs and local health departments/tribes.

- ✓ Report includes general statistics for the current year, web resources, upcoming conference calls, and a special monthly topic, such as guidance regarding surveillance for deaths suspected to be due to the 2009 H1N1 influenza virus.
- Developing H1N1 influenza webpage for medical examiners to receive the most upto-date information and guidance for detection and response to suspect H1N1 influenza deaths.

B.2 Public Communication and Communications Plans

- ADHS is working with counties, tribes, and the Arizona Hospital Association on the "Stop the Spread AZ" campaign, which was initiated by the Maricopa County Public Health Department.
 - Materials produced for the campaign will direct the public to the <u>www.stopthespreadaz.org</u> website.
 - This webpage will serve as a landing page for ADHS, county public health websites, and other agencies in Arizona with online content relating to the H1N1 pandemic.
- ADHS is using social networking sites and the media to distribute the latest information and updates on H1N1 influenza. Media tool allow ADHS to be more specific and flexible in our messaging and has the ability to reach out to specific populations through the media. ADHS is using the following methods to distribute public messages through the news media:
 - ✓ News Conferences important information relayed by key newsmakers
 - News Releases important information with specific details can be used alone or in conjunction with news conference
 - ✓ Website updates, Tweets, Facebook, and RSS tools to get out small changes in information quickly
- A Joint Information System (JIS) has been established to coordinate public information and messaging strategies for H1N1 responses across the state.
 - ✓ The JIS includes representation from various state and county agencies as well as representation from the healthcare field. Public information officers from state, county, and tribal agencies are invited to participate in the JIS.
 - ✓ The following types of messages are being developed by the H1N1 JIS: speaking points for interviews/news conferences, news releases, public service announcements (radio, television), posters, flyers, billboards, and newspaper ads.
 - ✓ The Arizona Hospital Association is taking a key role in the H1N1 JIS to ensure that hospital and healthcare issues are addressed.
 - ✓ Approval teams, which will serve a two week shift, will be comprised of six representatives from a variety of agencies. This rotating approval team will

ensure that a wide variety of partner agencies will have an opportunity to participate in the H1N1 JIS.

- ✓ State and county agencies participating in the H1N1 JIS will be allowed to modify materials as needed, but will be encouraged to keep changes to a minimum in order to achieve consistent messaging across the state.
- See the attached Concept of Operations for more information on the H1N1 JIS (Appendix B).
- ✓ See the attached ADHS H1N1 Communications Flowchart, which diagrams the flow of information from ADHS through the JIS and to the general public. Note: The flow of information to the general public from other agencies may or may not resemble the ADHS flowchart, and will be based on communication plans at individual agencies (Appendix C).
- A research project and workshop is being developed to address public information strategies for H1N1 outreach efforts.
 - ✓ The goal of the research and workshop is to alleviate medical surge in the health care system by investigating optimal risk communication strategies.
 - ✓ The project will include public opinion surveys and an analysis of various risk communication strategies that may or may not be used to during the upcoming pandemic wave.
 - ✓ The preliminary results of the project will be presented at the workshop, which will be conducted during the first week of November.

B.3 Community Mitigation

In response to the need for clear communications to our government and non-government partners regarding community (non pharmaceutical) mitigation strategies to prevent the spread of influenza, ADHS formed a multi-jurisdictional Community Mitigation Task Force. The objectives of this Task Force include the following:

- Provide clear and concise science-based recommendations to our partners regarding non-pharmaceutical strategies to respond to the H1N1 influenza pandemic that are feasible and acceptable.
- Reach out to special-needs populations and other groups that may be difficult to reach, such as tribes.
- Utilize existing infrastructure to communicate with stakeholders, such as medical professional organizations, business communities, churches, and other religious groups.

Activities

- Developed and disseminated the following guidelines for the prevention of influenza H1N1 spread in Arizona based on modified CDC guidelines.
 - ✓ Guidelines for K-12 schools
 - ✓ Guidelines for higher education institutions
 - ✓ Guidelines for long-term care facilities
 - ✓ Guidelines for outpatient medical facilities
 - ✓ Guidelines for child care facilities (in review)
- Continued to educate stakeholders regarding community mitigation strategies and prevention planning efforts for H1N1 influenza with over 20 in-person presentations conducted by an infectious disease physician or epidemiologist.
- Reviewing guidelines for businesses to respond to increased worker absenteeism and illness at work.
- Established direct communications between ADHS and the Department of Education to respond to ongoing issues regarding H1N1influenza and schools.
- Worked directly with ADHS Licensing; Women, Infants, and Children; Maternal and Child Health programs; and the ADHS Native American Liaison to ensure these populations are receiving clear and accurate guidance.
- Provided assistance to multiple county and tribal health departments with their response to outbreaks in schools, including whether and how long to close them and how to re-open them.
- Participate in weekly CDC community mitigation calls with other state and local health departments to stay informed about their community mitigation strategies.
- Developed a matrix summarizing of current H1N1 reccomendations by population groups and settings (Appendix D).
- Worked and continue to work with ADHS Information Technology to post all guidelines in easy-to-locate areas on the website.

B.4 Community Partnership and Outreach

B.4.1 State Medical and Pharmaceutical Boards

- ADHS met with several state boards and associations on Friday, August 28th to discuss H1N1-related regulatory issues. State boards and others represented included:
 - ✓ Arizona Medical Board
 - ✓ Arizona Healthcare Cost Containment System (AHCCCS)
 - ✓ Arizona State Board of Pharmacy
 - ✓ Arizona Hospital and Healthcare Association
 - ✓ Arizona Osteopathic Board
 - ✓ Arizona Attorney General's Office
- Regulatory issues discussed included:
 - ✓ Rule and statute changes to allow pharmacists to administer vaccines;
 - ✓ Alternate Care Site planning issues;
 - ✓ Emergency Medical Treatment and Active Labor Act (EMTALA);
 - ✓ Nursing students providing vaccinations; and
 - ✓ Hospitals developing alternate standards of care for ventilator use.

B.4.2 Tribes and Indian Health Services (IHS)

- ADHS's County and Tribal Coordination continues with the following:
 - Assist all counties and tribes in completing and executing their pandemic influenza and mass vaccination plans.
 - ✓ Host and conduct weekly conference calls for all H1N1 matters.
 - Assist counties and tribes with H1N1 preparedness coordination and related activities.
 - ✓ Assist tribal coordination with Indian Health Services (IHS).
 - Ensuring H1N1 grant funds are dispersed and properly utilized for all counties and tribes.
 - ✓ Assist in coordinating the Tribal Collaborative Team.

B.4.3 Arizona Department of Education

- ADHS has been assisting in planning a conference sponsored by the Arizona Department of Education (ADE) on September 29th. The conference will be geared toward school administrators and will provide topics on H1N1 Fall Preparedness and other school safety and prevention topic areas.
- ADHS is also continuing the ADE partnership throughout the grant year to:
 - ✓ Close gaps in K-12 school planning;
 - ✓ Coordinate school preparedness guidance dissemination to K-12 schools;
 - Disseminate messaging on new or updated CDC/ADHS guidance documents; and
 - ✓ Prepare plans to provide distance learning materials to schools.

B.4.4 Border Health

- The Office of Border Health and the CDC are initiating a Border Infectious Disease Surveillance (BIDS) project to conduct active surveillance for patients hospitalized with severe acute respiratory infections in sentinel hospitals in the border region. This collaborative surveillance effort will determine the proportion of confirmed influenzas among these patients and the deaths attributable to each virus type.
 - This will be piloted initially in a large hospital in Pima Countyand may be expanded to additional sentinel sites in border counties, contingent on funding and resources.
- Liaising with the CDC, Canada and Mexico Federal Secretariat of Health for international updates.
 - Participate with the Security and Prosperity Partnership of North America (SPP) initiative.
 - ✓ Disseminate information to ADHS & partners.
- Meeting with the Sonora Secretariat of Health for collaboration and cooperation and the Instituto Nacional del Migrante in Sonora Ports of Entry to provide and/or obtain information on H1N1 activities in Mexico.
- Maintaining communications with the Sonora State Secretariat of Health and with California, New Mexico and Texas Offices of Border Health to receive updates on H1N1 along the border.
 - ✓ Exchange regular situational briefings.
 - ✓ Disseminate information to ADHS & partners.
- Arizona and Sonora use Arizona's Medical Electronic Disease Surveillance Intelligence System (MEDSIS) to share case information and surveillance details securely and electronically.

- ✓ Epidemiologists in Sonora have been trained on and use the bilingual application of MEDSIS for Binational cases of H1N1 and other diseases.
- ✓ The Sonora State Public Health Laboratory in Hermosillo, Sonora, Mexico has been validated to perform H1N1 testing and Arizona residents tested by the Mexican lab are included in surveillance data.
- Working with Customs & Border Protection, Border Patrol, Immigration & Customs Enforcement, and the CDC Quarantine Stations in San Diego & El Paso for Point of Entry and border crossing public health issues related to H1N1.

B.4.5 Office of Vital Records (OVR)

- Develop and implement policy and procedure defining the role of vital records offices in issuing death certificates due to H1N1 influenza.
 - ✓ Draft and distribute to county vital records offices for review and input
 - ✓ Post policy and procedure to the funeral home resource web site and the medical examiner and county vital records web sites.
 - Prepare and distribute a written handout for distribution to funeral homes. Handout will be sent to all county vital records offices to be added as in insert for all death certificate orders going out to funeral homes.
- Complete implementation of the web-based electronic death registry system (EDRS) throughout Arizona.
 - ✓ Bring remaining county vital records offices (Greenlee, Santa Cruz, LaPaz and Mohave) onto the system.
 - * Greenlee County scheduled for training 09/14/09 09/17/09.
 - * Mohave County on-site training to be completed by 10/16/09.
 - ✓ Bring remaining medical examiner offices on-line (Apache, Gila, Graham, Greenlee, La Paz, Mohave, Navajo, Santa Cruz, and Yuma).
 - * Mohave County on-site training to be completed by 10/16/09.
 - ✓ Complete development of the recorded trainings to be used to conduct online trainings for funeral homes and their staff.
 - ✓ Bring all Arizona funeral homes on-line.
 - * As of 08/31/09 all funeral homes in Cochise, Coconino, Pima, Pinal, and Yavapai are using the EDRS.
 - * As of 09/30/09 all funeral homes in Maricopa will be using EDRS.
 - * Beginning 01/01/10, all remaining funeral homes will be trained using the recorded, on-line training methodology.
- Provide protective items for OVR staff that have direct customer contact.
 - ✓ Ordered gloves, masks and hand sanitizer.

B.4.6 Emergency Medical Services and Trauma System

- Reviewed existing rules governing the emergency medical transport of patients and identified rules that may need to be lifted given a declaration of emergency at state and/or federal level.
 - ✓ Developing draft orders for requirement waivers.
 - ✓ Defining signature authority for rule suspension .
- Communicating with partners and stakeholders to promote awareness of vaccination recommendations and participation in pre-registration for H1N1 vaccine distribution.
- Updating H1N1 personal protective equipment and infection control recommendations for first responders.
- Evaluating existing requirements regarding the ability of emergency medical technician to perform vaccinations.
- Reviewing definitions of "health care facility" and working with licensure to define the regulations regarding patient transport to alternate care sites.

B.4.7 Division of Licensing Services

The Division of Licensing Services (DLS) licenses over 7500 healthcare (hospitals, nursing homes, behavioral residential settings, assisted living facilities, developmental disabled group homes and inpatient and outpatient medical and behavioral health settings) and childcare facilities as well as individuals (speech language professionals, hearing aid dispensers and midwives). H1N1 will have implications to these licensees, both to the clients they serve as well as to the staff and visitors of each inpatient and outpatient setting.

DLS has taken an aggressive and proactive approach to assist their licensees. The following activities are currently underway and as new information is learned, these activities may be expanded, improved upon or maintained.

- Continued to update contact information for current licensees and has provided contact information to the Health Alert Network for emergency communications.
- Coordinate with Centers of Medicare Medicaid Services Survey and Certification Division (CMS) on updates to healthcare regulations, including any waivers from CMS rules and regulations for healthcare facilities.
- Developed and disseminated the following guidance for licensed facilities:
 - Nursing homes, assisted living facilities and residential behavioral healthcare facilities.
 - ✓ Outpatient medical and behavioral healthcare facilities.

- ✓ Childcare facilities (pending final approval).
- DLS will provided current guidance to licensed facilities during surveyor visits and new provider orientations.
- Licensing is establishing routine meetings with stakeholders and licensing programs to share H1N1 updates and the most recent guidance.
- Identified additional staff to participate in H1N1 response activities and trained staff in incident command and emergency operations procedures.
- Developing protocols for ADHS licensing staff on the most current H1N1 guidance and operations.

B.4.8 Women and Children's Health

- The Bureau, in coordination with the ADHS preparedness planners, is developing H1N1 prevention and mitigation messages tailored for women, infants and children participating in the Arizona WIC Program and for seniors participating in the Arizona Commodity Supplemental Food Program.
- ADHS is developing messaging directed toward WIC local agencies which address the actions to be taken in case of disaster or emergency. The message content will be tailored in accordance with communication guidance provided by ADHS and federal agencies. Currently, a message addressing actions to be taken with regards to the H1N1 flu is being developed.
 - ✓ The Bureau is also working to encourage WIC local agencies to develop disaster response plans which are coordinated with the plans of their own agencies and insure the continued delivery of services to WIC participants in areas affected by the emergency.
- Working with stakeholders and partners to distribute outpatient healthcare and childcare guidelines and to develop recommendations for oral health settings
- Compiling a list of professional organization and professional boards for notification and guidance, such as Board of Nursing, Board of Medical Examiners, and Dental associations.
- The Office for Children with Special Health Care Needs (OCSHCN) will communicate guidelines and other related material to the Children's Rehabilitative Services (CRS) contractor, and to community partners.

B.4.9 Refugee Health

The ADHS Refugee Health Coordinator (RHC) serves as a public health liaison that is responsible for coordinating and planning aspects of refugee health needs with the Arizona Refugee Resettlement Program (RRP) (located at the Arizona Department of Economic Security), county public health departments, medical providers, refugee resettlement agencies, other non-profits serving refugees and local ethnic community organizations. Of primary focus, is the task of assisting in the process for each refugee, entrant, asylee,

parolee, or other eligible client entering Arizona receive a comprehensive health screening within 30 days of arrival. Other tasks include facilitating access to health information and trainings for refugees and the resettlement community and identifying areas of improvement in the current system. The following activities comprise the H1N1 plan for communicating and engaging the refugee resettlement community in the endeavor of helping to manage this influenza pandemic.

- Attend monthly calls with federal agencies to discuss recommendations for refugees impacted by H1N1 influenza.
- The refugee health coordinator has established an electronic mail distribution list of key refugee service providers and ethnic community leaders which is used to share information on public health issues including H1N1 influenza. The following is a list of some of the participants:
 - ✓ Arizona Refugee Resettlement Program
 - ✓ Arizona Department of Education Refugee Education Coordinator
 - ✓ AHCCCS H1N1 Specialists (Director's Office)
 - ✓ Arizona Health Disparities Center
 - ✓ Arizona Refugee Advancement Coalition
 - ✓ Tucson-based Refugee Integration Service Providers Network
 - ✓ University of Arizona Refugee Primary Care Listserv
 - ✓ Community Outreach and Advocacy for Refugees (ASU campuses)
 - ✓ Maricopa Integrated Health Systems Refugee Women's Clinic Coalition
 - ✓ Area Agency on Aging
 - ✓ County Health Departments
 - ✓ Local Health Clinics
 - ✓ School Nurses Association of Arizona
 - ✓ School Nurse Consortium
 - ✓ Resettlement Agencies
 - ✓ Ethnic and Community Groups (Mutual Assistance Associations MAAs)
- The refugee health coordinator is providing presentations and updates on H1N1 to the Refugee Health Provider Outreach and Collaboration meeting and the Quarterly Refugee Public Consultation Meeting.
- Discuss and identify future needs with regard to education and management of the H1N1 pandemic in the refugee community.

B.4.10HIV/AIDS Populations

Human Immunodeficiency Virus (HIV)-infected adults and adolescents, and especially persons with low CD4 cell counts or AIDS, can experience more severe complications of influenza, including the H1N1 influenza virus. Persons living with HIV/AIDS should take precautions to protect themselves from H1N1 flu and should consult their health care provider to assess the need for evaluation and for the possibility for anti-influenza treatment or prophylaxis. Persons with immunosupression, including that caused by medications or by HIV infection are among the priority groups that should get flu shots. HIV-infected adults and adolescents with novel influenza A (H1N1) virus infection and their should receive empiric antiviral treatment or chemoprophylaxis.

The Arizona AIDS Drug Assistance Program (ADAP) Formulary Committee provides guidance to the Arizona Department of Health Services, Office of HIV, STD and Hepatitis Services regarding HIV/AIDS medications included on the ADAP formulary. The purpose of the committee is to identify, research and advise the Department about the type, background, and uses of new and current drugs for the ADAP formulary. H1N1 vaccine and treatments are included in the scope of work of the formulary committee.

- ADAP Formulary Committee is meeting monthly and will review and provide guidance for vaccine and treatment recommendations for persons living with HIV/AIDS in Arizona.
- Staff are participating in the "H1N1 Preparedness and HIV, A webinar for Federal staff and grantees who serve people living with AIDS", on September 2, 2009.
- ADAP staff are participating in the H1N1 Community Mitigation Workgroup to discuss the needs of the HIV/AIDS infected population in Arizona. The goal of the meeting is to help determine the prioritization level and distribution plan of H1N1 influenza countermeasures for individuals with HIV/AIDS.
- Staff are communicating with pharmacists, health care providers, case managers and ADAP clients regarding H1N1 vaccine prioritization and treatment as it becomes available. All healthcare providers serving HIV clients are being urged to enroll as H1N1 vaccine providers.
B.5 Planning and Legal Requirements

B.5.1 ADHS Mass Vaccination Plans

- ADHS is updating the 2008 Arizona Pandemic Influenza Operational Plan appendix B.6, Mass Vaccination for submittal to the U.S. Department of Health and Human Services (HHS) on September 15th. ADHS will include a separate attachment with H1N1-specific mass vaccination planning components.
- ADHS has updated the Mass Vaccination Clinic Plan. This is a standard operating guide (SOG) for use by local immunization coordinators or clinic operators on how to run a mass vaccination clinic. The plan was updated and vetted through the Arizona County Directors of Nursing Association and County Immunization Managers.

B.5.2 Alternate Care Site Planning

 ADHS is continuing to plan for alternate care sites (or influenza care centers) in Arizona. This includes outreach to Arizona hospitals, clinics, local health departments, and local emergency management programs. ADHS will continue to identify and address licensing regulatory issues. ADHS will also continue to work with local health departments and hospitals on alternate care site locations, pending addressing licensing regulatory issues.

B.5.3 Biohazardous Medical Waste

 ADHS is working with the Arizona Department of Environmental Quality (ADEQ) on preparing for the surge in medical waste from mass vaccinations (medical sharps waste).

B.5.4 Strategic National Stockpile (SNS) Planning

- In the event that the Federal Government/CDC makes the decision to push out Arizona's allocation of the SNS stockpile, ADHS is updating all of their SNS plans to include the following:
 - ✓ Organizational diagram for SNS team;
 - ✓ Updated plans for Receipt, Storage, Staging & Distribution of SNS material;
 - ✓ Updated plans for shipment of stockpile to counties and tribes
 - ✓ Inventory control and tracking; and
 - ✓ Security of all operations and material.

B.5.5 Public Readiness and Emergency Preparedness (PREP) Act

Tort liability protection for the administration of the vaccine is covered by the Public Readiness and Emergency Preparedness (PREP) Act. The PREP Act authorizes the Secretary of the Department of Health and Human Services ("Secretary") to issue a declaration ("PREP Act declaration") that provides immunity from tort liability (except for willful misconduct) for claims of loss caused, arising out of, relating to, or resulting from administration or use of countermeasures to diseases, threats and conditions determined by the Secretary to constitute a present, or credible risk of a future public health emergency to entities and individuals involved in the development, manufacture, testing, distribution, administration, and use of such countermeasures. A PREP Act declaration is specifically for the purpose of providing immunity from tort liability, and is different from, and not dependent on, other emergency declarations. Further information can be found at: http://www.hhs.gov/disasters/discussion/planners/prepact/index.html

B.5.6 State Government Business Continuity

- The Division of Operations team is currently revising the Division of Operations Business Continuity Plan to reflect essential and administrative processes from Business and Financial Services, ITS, Procurement, HR and Director's Office.
- Plans are in place to use the Living Disaster Recovery Program Software (LDRPS) to capture the Division of Operations Business Continuity Plan as well as the Agency's Continuity of Operations Plan and its seven critical business processes.
- The Arizona Immunization Program is currently identifying their program's essential business functions and comprising a program Business Continuity Plan.
- The Women, Infants, and Children (WIC) Program Disaster Policies and Procedures to provide guidance to local contracted agencies.
- ADHS will continue to work closely with the Arizona Department of Administration (ADOA) to prepare Arizona state agencies for H1N1 fall planning. This will include:
 - Disseminating updated frequently asked questions (FAQs) to state agency human resources directors and state agency directors.
 - Disseminating guidance to state agencies on how to assess occupational risk.
 - Establishing policies and procedures for preventing the spread of influenza, including return to work policies.
 - ✓ Reviewing and revising leave policies.
 - Identifying and disseminating information on how employees can access mental health services.
 - Reviewing relationships with vendors, contractors, shippers/suppliers to identify continuity of government contingencies.

B.5.7 Trainings and Exericses

The Bureau of Emergency Preparedness and Response, Education and Exercise Section is working on two exercises for H1N1 preparedness.

- The first of these exercises focuses on community mitigation strategies such as school closure and social distancing, and how to minimize the impact of these measures on society.
- This exercise will be conducted at three or four locations across the state.
- The first of these exercises was held in Prescott, AZ on August 17, 2009.
- Attendees included school representatives, public health, emergency management, tribal stakeholders, as well as representation from Arizona State University and Yavapai College.
- This same exercise will also be conducted in Sierra Vista on September 17 and in Kingman on September 30.
- ADHS staff is currently working to schedule another similar exercise in either Maricopa County, or in the northern part of the state.

B.6 Logistics

- Established an electronic report to review the list of providers who have preregistered to receive H1N1 vaccine.
 - This report is updated and emailed to Local Health Departments on a weekly basis (Fridays).
- Developing a reporting form to monitor adult and pediatric influenza in hospital Intensive Care Units using the EMResource web application from emergency departments statewide.
- Working with the Department of Health and Human Services to monitor bed and medical supply availability using the HAvBED program for situational awareness
- Verifying contact and registration information for volunteers registered in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP).
- Continue to send out Health Alert Notifications from Operations as necessary
- Established a moderated conference call system for weekly H1N1 updates with Local Health Departments.
 - Weekly conference calls are moderated and recorded for archival and distribution amongst specific partners.
 - ✓ All participants names and agencies are recorded.
- Conducting training classes for ADHS staff on:

- Secure Integrated Response Exchange Network a secure electronic platform for sharing e-mail and documents with external partners.
- ✓ Health Emergency Operations Center training on incident command structure and the planning process.
- Data entry support training staff to enter lab specimens and cases into state surveillance systems.

B.7 Finance

- Developed documents for ADHS staff to track H1N1 response activities for potential reimbursement.
- Securing almost \$30 million in additional funds for H1N1 vaccine administration and response avtivities under the CDC Public Health and Emergency Response Agreement.

C. Resources and Appendices

C.1 Appendices

A. 2009 H1N1 Influenza Vaccination Operational Plan

B. Concept of Operations for the Joint Information System

C. ADHS H1N1 Communications Flowchart

D. Matrix of Current H1N1 Reccomendations by Population Groups and Settings

E. Incident Command Chart

C.2 Resources

Arizona Influenza Pandemic Response Plan http://www.azdhs.gov/pandemicflu/pandemic_flu_plan.htm

Arizona Pandemic Influenza Operational Plan

http://www.azdhs.gov/phs/edc/edrp/pdf/08apiop.pdf

Arizona Mass Vaccination Plan

http://www.azdhs.gov/pandemicflu/pdf/az_mass_vaccination_clinic_plan.pdf

Arizona's Novel H1N1 Influenza Vaccine Estimate Worksheet

<u>Resource:</u> All population estimates are based on <u>Guidance on Allocating and Targeting Pandemic Influenza Vaccine</u>, released in 2008, unless otherwise specified.

Assumptions: Arizona population is 2% of US total based on 2008 census population estimates

Priority	Priority Groups	U.S. Pop.	Arizona Pop.	Arizona Winter Pop./
Level				Seasonal Workers
1	Pregnant Women	3.1 million	113,756 ¹	
1	Household contacts and caregivers of	4.3 million	86,000	
	children < 6 months			
1	Healthcare and emergency medical	10.7 million^2	214,000	
	service personnel			
1	People 6 months through 24 years of age	103.7 million^3	2.1 million	
	6 months through 35 months	10.3 million	257,955	
	3 years through 4 years	10.3 million ⁴	257,955	
	5 years through 9 years	19.7 million ⁵	471,8576	
	10 years through 14 years	20.6 million ⁵	445,7916	
	15 years through 19 years	21.5 million ⁵	444,3196	
	20 years through 24 years	20.9 million ⁵	431,2876	
1	Persons 25 to 64 years of age with high	36 million ⁷	720,000	
	risk conditions			
2	Healthy persons 25 through 64 years	107.4 million ^{3,8}	2.2 million	90,000 ⁹
2	Persons 65 years and older	39 million	780,000	300,000 ¹⁰

¹Estimate from <u>ADHS pregnancy data, all races/ethnicities, 2007</u>:

²Includes public health personnel, inpatient health care providers, outpatient and home health providers, health care providers in LTCFs, community support and emergency management, pharmacists, and emergency services sector personnel.

³Data from <u>2008 census population estimates</u>

⁴Estimated by subtracting total of 6 months to 35 months found in *Guidance on Allocating and Targeting Pandemic Influenza Vaccine* from total under 5 years found in <u>2005-2007 American Community Survey estimates</u>

⁵Data from 2005-2007 <u>2005-2007 American Community Survey estimates</u>

⁶Data from <u>2008 Arizona population estimates</u>

⁷ Estimated from age 19-64 – possible overestimate for 25-64 years group

⁸ Excludes individuals from priority level 1 (pregnant women, household contacts, healthcare personnel, persons 25-64 years with high risk conditions).

⁹Estimate of Yuma County only, taken from: Torres, E. (2007). Futuro Claro: A culturally competent Promotora program serving migrant and seasonal farmworkers and the Latino population in the rural and border communities of Yuma County Arizona. Available at http://www.tobaccofreeaz.org/ctfa/docs/2007%20conference/10%20Emma%20Torres_futuro%20claro%20Need%20to%20confirm%20permission.pdf.

¹⁰Estimate from: Hogan, T, Happel, SK, Walls, KS. (2003). State's 'snowbird' count estimated at 300,000 or more. *Arizona Business*. Available at <u>http://wpcarey.asu.edu/seidman/ccpr/AZBpdfs/AZB_0306.pdf</u>.

Attachment 2 Vaccine Ordering Process



Arizona Novel H1N1 Influenza Vaccine Distribution Program 2009-2010

Pre-Registration Form

All Arizona healthcare providers interested in participating in the novel H1N1 Influenza Vaccine Distribution Program must complete this form. Pre-registration information will be used to estimate vaccine needs and establish a shipping address. Providers are not committed to receive vaccine by completing this form. When the vaccine becomes available for distribution, providers will receive a provider agreement and order form that must be returned to ADHS in order to receive vaccine. **Submit only one pre-registration form per practice site.** Call

Vaccine Distribution Background Document [PDF 93K]

Vaccine Distribution Pre-Registration Instructions [PDF 41K]

Practice Name:

Contact:
001110011

Last Name

First Name

Title

Backline Phone Number

E-mail address:

Vaccine Delivery Street Address:

Delivery City:

Delivery Zip:

Delivery County:

Mailing Address:

Street or PO Box

City

Zip

County

Phone Numbers:

Area Code

Main

Fax

Hours/Days when office is open:

Closed for lunch?

- Yes
- 0 **No**

Hours closed for lunch:

Do you have a high-speed Internet connection?

- Yes
- 0 **No**

Classification of Practice:

Please choose one from the list below:

- Practice, Individual or Group
- Hospital
- O Other Private Facility
- County Health Department
- **Type of Practice:**

Please choose one from the list below:

- Family/General
- \circ Pediatrics
- O OB/GYN
- Hospital
- Pharmacy
- Other Specialty (describe below)

- Community Health Center (FQHC)
- Rural Health Center (RHC)
- Other Public Facility (IHS, Fire, etc.)
- County Health Department
- Indian Health Services (IHS/Tribal Health Center)
- FQHC/RHC
- School Based Clinic
- Other Public Specialty (describe below)

If you selected "Other Specialty" or "Other Public Specialty", please describe:

The section below must be completed: If you need help, call Arizona Immunization Program Office at a section below.

Estimate number of patients and staff by target group for whom you plan to order novel H1N1 vaccine.

Children 6 months through 18 years of age

Young adults 19-24 years of age

Pregnant women

Adults living with or caring for children under 6 months of age

Health Care Workers and Emergency Services Personnel

Chronic Health Conditions 25-64 years of age

All Other Patients

Total



Arizona Novel H1N1 Influenza Vaccine Distribution Program 2009-2010 Background Document to accompany "How to Order Novel H1N1 Influenza Vaccine" and "Novel H1N1 Influenza Vaccine Preregistration Form"

Epidemiology of novel H1N1 influenza

Novel H1N1 influenza virus continues to cause influenza-like illness in Arizona and the US. In Arizona, the median age for novel H1N1 influenza cases is 15 years, for hospitalizations is 17 years, and for death is 49 years (as of 8/5/09). Only 2% of cases have been in people over 65 years. Patients at increased risk of novel H1N1 influenza-related complications are similar to seasonal influenza: pregnant women, and those with asthma, COPD, diabetes, chronic cardiovascular disease, and immunocompromise.

Novel H1N1 influenza vaccine manufacturing

Novel H1N1 vaccine is being purchased by the U.S. government from five vaccine manufacturers. Both inactivated and live attenuated novel H1N1 vaccines will be made. Inactivated vaccine will come in both single-dose syringes and in multi-dose vials. Vaccine in single-dose syringes and live-attenuated vaccine will be thimerosal-free.

Novel H1N1 vaccine purchase and allocation

Novel H1N1 influenza vaccine will be made available to vaccinators at no cost in increments of 100 doses. Syringes, needles, sharps containers and alcohol will also be provided. Vaccine will be allocated across states proportional to their population. Arizona Department of Health Services (ADHS) will be the ordering location for the novel H1N1 influenza vaccines allocated to Arizona.

Planning assumptions

The projected date of availability of novel H1N1 influenza vaccines continues to change. The most recent projection is that the first shipment of 20 million doses may be released in late September, with 100 million doses shipped in October, 80 million in November, and 80 million in December. For Arizona, that would translate into 400,000 doses at the end of September, 2 million in October, and 1.6 million in November and December.

At the present time, the assumption is that the novel H1N1 influenza vaccine will contain $15 \mu g$ of antigen and that people will only need one dose of vaccine. Clinical trials are being conducted to determine which age groups, if any, will need only one dose. The majority of vaccine will come as multidose vials but about 20% of the shipments will be thimerosal-free single-dose syringes and live attenuated vaccine.

Local health departments throughout Arizona are organizing efforts to give novel H1N1 influenza vaccine in public health clinics, in schools, and through mass vaccination clinics. However, there are not enough public health vaccinators to be the sole vaccinators to deliver novel H1N1 influenza vaccine throughout Arizona if it is to be done in a timely fashion. Therefore, nonpublic health entities such as private providers, hospitals, occupational health clinics, companies providing vaccination services, and pharmacies will need to play a large role in administering vaccine.

ADHS Novel H1N1 Influenza Vaccine Background Document p. 2

Novel H1N1 vaccine ordering

ADHS will broker the ordering and distribution of novel H1N1 vaccine in Arizona. Providers who want to give novel H1N1 vaccine to their patients will need to pre-register (see attached documents or go to <u>http://www.azdhs.gov/flu/h1n1/index.htm</u>). **There is no cost to the provider to pre-register.** Pre-registration will not obligate the provider to administer novel H1N1 influenza vaccine, but will provide ADHS with the necessary information to contact providers and arrange for shipping.

Providers who pre-register will subsequently receive instructions on how to order and reorder novel H1N1 influenza vaccine. They will also be sent a provider agreement outlining the terms and conditions of administering novel H1N1 influenza vaccine, and vaccine storage and handling requirements.

Providers who give novel H1N1 vaccine will be asked to report to ADHS on a regular basis the number of administered doses by age groups, the type of vaccine given, and the number of unused or wasted doses. In addition, providers giving novel H1N1 vaccine to <u>children</u> will need to also record the novel H1N1 influenza vaccine dose in Arizona's electronic immunization registry (ASIIS).

CDC has developed a provider agreement, which will need to be signed by all providers administering H1N1 vaccine. In this agreement, providers will need to consent not to charge for the vaccine, and to maintain proper handling and storage measures.

Financial issues and novel H1N1 vaccine

The novel H1N1 influenza vaccine will be provided free of charge to providers. Providers can <u>not</u> charge recipients for the vaccine. However, providers can charge an administration fee. This could either be through fee-for-service or by billing insurance companies.

The question as to whether a provider can turn away a patient if they are unable to pay is still under discussion. Private providers will likely not be obligated to administer novel H1N1 influenza vaccine if the patient cannot pay the administration fee, but this issue has yet to be finalized as part of the provider agreement. Public health providers will not be able to turn patients away for inability to pay the fee, but they can request payment of an administration fee from insurance companies or the patient.

The Centers for Disease Control and Prevention (CDC) asked AHIP (America's Health Insurance Plans) whether insurance plans would reimburse private providers for administration and received the following answer: "Every year health plans contribute to the seasonal flu vaccination campaign in several ways: a) Health plans communicate directly with plan sponsors and members on the current ACIP recommendations and encourage immunization; they also provide information on where to get vaccinations, and who to contact with any questions; b) Just as health plans have provided extensive coverage for the administration of seasonal flu vaccines in the past, public health planners can make the assumption that health plans will provide reimbursement for the administration of a novel

ADHS Novel H1N1 Influenza Vaccine Background Document p. 3

(A) H1N1 vaccine to their members by private sector providers in both traditional settings e.g., doctor's office, ambulatory clinics, health care facilities, and in non-traditional settings, where contracts with insurers have been established."

Vaccine delivery

ADHS will order vaccine when ADHS receives an order form and a signed provider agreement from the provider. Vaccine will be shipped directly to the provider. At times providers may only receive part of their order depending on availability of vaccine from the distributor as well as state and county prioritization guidance. In this case, providers will need to reorder more vaccine from ADHS.

Shipments will be in increments of 100 doses with a minimum shipment size of 100 doses for each type of vaccine (i.e. nasal spray, single-dose syringes, multidose vials). Providers can reorder more vaccine through ADHS as needed. Providers should develop an office communication plan to inform their patients about when novel H1N1 influenza vaccine is available in their offices and how to schedule an appointment to get it.

ACIP recommendations for novel H1N1 influenza vaccine target groups

There will eventually be enough novel H1N1 vaccine to give to everyone who wants a vaccine. However, at first, the vaccine should be given to those who are most likely to get sick and have serious complication. CDC's Advisory Committee on Immunization Practices (ACIP) has recommended that certain target groups receive the novel H1N1 influenza vaccine first. (See <u>http://www.cdc.gov/h1n1flu/vaccination/acip.htm</u>) These recommended target groups are:

- Pregnant women
- People who live with or care for children younger than 6 months of age
- Healthcare and emergency medical services personnel
- All people from 6 months through 24 years of age
- Persons aged 25 through 64 years who have health conditions associated with higher risk of medical complications from influenza.

Once the demand for vaccine for the prioritized groups has been met at the local level, providers should also begin vaccinating everyone from the ages of 25 through 64 years. Finally, once vaccine demand among younger age groups has been met, providers should offer vaccination to people 65 or older.

In situations where vaccine is in limited quantities, ACIP recommends that the following groups receive the vaccine before others:

- Pregnant women
- People who live with or care for children younger than 6 months of age
- Healthcare and emergency medical services personnel with direct patient care
- Children ages 6 months through 4 years of age
- Children 5 through 18 years of age who have chronic medical conditions.

ADHS Novel H1N1 Influenza Vaccine Background Document p. 4

Legal protection for providers giving H1N1 influenza vaccine

Under authority from the Public Readiness and Emergency Preparedness (PREP) Act, the Health and Human Services (HHS) Secretary has issued a declaration that gives providers immunity from tort liability (except for willful misconduct) for claims of loss caused, arising out of, relating to, or resulting from administration or use of countermeasures to diseases, threats and conditions determined by the Secretary to constitute a present, or credible risk of a future public health emergency to entities and individuals involved in the development, manufacture, testing, distribution, administration, and use of such countermeasures such as the novel H1N1 influenza vaccine. More information is available at www.hhs.gov/disasters/discussion/planners/prepact/index.html

Seasonal influenza vaccination

Seasonal influenza vaccine will be available beginning in August or September 2009. The seasonal influenza vaccine is expected to be available earlier than the novel H1N1 vaccine, but the availability of the two vaccines is expected to overlap. The process for ordering seasonal vaccine is unchanged from previous years.

Providers should give patients the seasonal influenza vaccines **as quickly as possible** in order to free up staff time and refrigerator space for novel H1N1 influenza vaccine that will arrive later in the season. **Do not delay** seasonal influenza vaccination in hopes of getting a longer lasting immune response. Contrary to a commonly held belief, protective immunity in most people (even in the elderly) does not decline rapidly and will persist for at least a year.

Monitoring vaccine safety

Vaccine safety is an important part of any vaccination program. Ongoing clinical trials are studying side effects of novel H1N1 vaccine. These side effects are expected to be similar to those from seasonal influenza vaccines. However, for any vaccine, rare side effects can only be detected by monitoring for adverse events after vaccination. This will be done through the Vaccine Adverse Event Reporting System (VAERS), through the Vaccine Safety Datalink (VSD) that analyzes clinical data from large heath maintenance organizations, and through active surveillance for Guillain-Barré Syndrome (GBS).

GBS will be looked for because the 1976 swine influenza vaccine was associated with an increased frequency of GBS (estimated at one additional case of GBS per 100,000 persons vaccinated with the 1976 swine influenza vaccine). However, it is important to inform patients that influenza virus infection itself can serve as a trigger of GBS, with the frequency of influenza-related GBS estimated at four to seven times higher than the frequency that has been estimated for influenza-vaccine-associated GBS (MMWR July 31, 2009, p.17 <u>http://www.cdc.gov/mmwr/PDF/rr/rr5808.pdf</u>)

Call Arizona Immunization Program Office at **Example 1** if you need additional information on novel H1N1 influenza vaccine pre-registering, ordering, delivery, or handling.



Division of Public Health Services

Office of the Assistant Director Public Health Preparedness Services





Aug. 13, 2009

The federal government is providing novel H1N1 influenza vaccine to the states at no charge. The Arizona Department of Health Services (ADHS) will be the central ordering location for vaccine in Arizona.

ADHS will pre-register providers who are interested in administering novel H1N1 influenza vaccine.

- There is no cost to the provider to pre-register.
- Pre-registration does not obligate the provider to administer novel H1N1 influenza vaccine.
- The novel H1N1 influenza vaccine will be provided free of charge to providers. Providers can <u>not</u> charge recipients for the vaccine. However, providers can charge an administration fee.
- Providers who want to order novel H1N1 influenza vaccine will need to sign a provider agreement that they will adhere to recommended priority groups, follow minimal reporting requirements, and adhere to vaccine storage and handling requirements.

To pre-register, please fax the attached pre-registration form to Arizona Immunization Program Office <u>as</u> <u>soon as possible</u> but at least by Friday, September 14th to **source at the second s**

- The pre-registration form will ask for the provider's contact information and shipping location
- Providers will be asked to estimate the total number of persons that they would realistically intend to vaccinate this season with the novel H1N1 influenza vaccine
- Providers need to have an active Arizona license
- Providers who are signed up with ADHS for VFC or ASIIS still need to pre-register
- Submit only <u>one</u> pre-registration form per site even if there are multiple providers at the site

Pre-registered providers will later receive:

- Instructions on how to order and reorder novel H1N1 influenza vaccine
- A provider agreement that will need to be signed outlining the terms and conditions of administering novel H1N1 influenza vaccine

Novel H1N1 Influenza Vaccine Distribution and Reporting Process:

- ADHS will order vaccine for the provider once ADHS receives an order form and the signed provider agreement
- Vaccine will be shipped directly to the provider from a vaccine distributor. Shipments will be in increments of 100 doses with a minimum shipment size of 100 doses
- The arrival date and size of individual novel H1N1 influenza vaccine shipments will depend on vaccine availability from the distributor and state and county prioritization guidance
- Providers can order additional doses of novel H1N1 influenza vaccine through ADHS as needed
- In order to fulfill federal requirements, providers will be asked to report to ADHS on a regular basis the number of administered doses by age groups and the type of novel H1N1 influenza vaccine given.

For more detailed information on novel H1N1 influenza vaccine, see the accompanying Background Document. Call Arizona Immunization Program Office at the second with further questions on novel H1N1 influenza vaccine pre-registering, ordering, delivery, or handling.

Subject: Health Information: Confirmation email information

Dear Healthcare Provider:

This email confirms that we received your preregistration with the Arizona Department of Health Services (ADHS). Thank you for your interest in administering H1N1 vaccine.

The preregistration form is not an order form, and does not guarantee vaccine

orders. Preregistration is designed to give ADHS an estimate of the providers interested in administering the H1N1 vaccine, the location of these providers, the approximate number of doses they anticipate needing for the H1N1 season, and the populations they serve. This information will be used by ADHS and local health departments to determine vaccine prioritization and distribution plans.

The county health officers will use the pre-registration information, along with guidance from Centers for Disease Control and Prevention (CDC) and ADHS, to determine the best mechanism to distribute and prioritize vaccine within their county, based on strategies that will have the most public health impact. Once the vaccination strategy for your area is determined, ADHS will notify the providers whether they are authorized to receive vaccine.

The amount of vaccine a provider will receive will be based upon vaccine prioritization groups, the amount of vaccine allocated to the county, the amount of vaccine your practice/facility is ordering and local health department needs. Orders must be in increments of 100 doses, as the CDC has determined that the minimum shipment size will be 100 doses. Providers should plan accordingly when filling out the order form, and should be aware that orders may not be completely filled. The minimum shipment size (100 doses) could delay partial orders for specific providers at first, if vaccine is in short-supply. Providers may reorder H1N1 vaccine in increments of 100 doses as needed throughout the season.

Those authorized to order H1N1 vaccine will be sent information for ordering H1N1 vaccine and other instructions in the near future. ADHS will order vaccine for the provider once the order form and signed provider agreement have been returned, and the ordering provider's license has been verified. Vaccine will be shipped directly to the provider from the vaccine distributor.

You will be notified after September 15th regarding your registration status. We appreciate your assistance with our planning efforts. Please call Arizona Immunization Program Office at **September 15th** with further questions on novel H1N1 influenza vaccine pre-registering, ordering, delivery, or handling.

Please see attached.

**DISTRIBUTED BY THE ARIZONA HEALTH ALERT NETWORK

Arizona Department of Health Services (ADHS) Novel H1N1 Influenza Vaccine Update 8/28/09

ADHS will be sending you weekly updates on novel H1N1 Influenza vaccine status, ordering, handling and delivery. We hope this information will answer some of your questions. The Centers for Disease Control and Prevention (CDC) is continually updating this information and we will stay in touch.

Vaccine Status

The date for novel H1N1 influenza vaccine to be available to ship to providers in Arizona is still a moving target, but the current tentative date is around October 15. The vaccine will be in limited supplies at first, and will be distributed according to county health departmentdetermined priorities as to where the vaccine needs to be shipped first. ADHS will let providers know when ADHS has sent the provider's novel H1N1 influenza vaccine order to the distributor. The vaccine will be sent directly to the provider from the distributor in packages of 100 doses per vaccine presentation (prefilled syringes, multidose vials, and nasal spray).

Vaccine Provider Agreement

The Centers for Disease Control and Prevention (CDC) has developed a Provider Agreement form for novel H1N1 influenza vaccine that providers will need to sign to be able to order novel H1N1 influenza vaccine. We have been told that the form will specify that the providers agree that they will not charge for the vaccine, that they will store and handle the vaccine correctly, and that they will report to Arizona Department of Health Services the number of patients vaccinated. This agreement will be sent in a few weeks to providers along with a vaccine order form, reporting guidance, vaccine safety information, and vaccine storage and handling directions.

Vaccination Cards

Vaccination cards will be part of the accessory materials (along with needles, syringes, alcohol wipes and sharps containers) that accompany shipments of vaccine. The vaccination card is to be given to patients to show when the patient received novel H1N1 influenza vaccine and the lot numbers.

ACIP Recommendations for Novel H1N1 Influenza Vaccine Target Groups

There will eventually be enough novel H1N1 vaccine to give to everyone who wants a vaccine. However, at first, the vaccine should be given to those who are most likely to get sick and have serious complication. CDC's Advisory Committee on Immunization Practices (ACIP) has recommended that certain target groups receive the novel H1N1 influenza vaccine first. (See http://www.cdc.gov/h1n1flu/vaccination/acip.htm) These recommended target groups are:

- Pregnant women
- People who live with or care for children younger than 6 months of age
- Healthcare and emergency medical services personnel
- All people from 6 months through 24 years of age
- Persons aged 25 through 64 years who have health conditions associated with higher risk of medical complications from influenza.

In situations where vaccine is in limited quantities, ACIP recommends that the following groups receive the vaccine before others:

- Pregnant women
- People who live with or care for children younger than 6 months of age
- Healthcare and emergency medical services personnel with direct patient care
- Children ages 6 months through 4 years of age
- Children 5 through 18 years of age who have chronic medical conditions.

Once the demand for vaccine for the prioritized groups has been met at the local level, providers should also begin vaccinating everyone from the ages of 25 through 64 years. Finally, once vaccine demand among younger age groups has been met, providers should offer vaccination to people 65 or older.

Please refer to the ADHS website for more information and updates: www.azdhs.gov



Division of Public Health Services Office of the Assistant Director

Office of the Assistant Director Public <u>Health Preparedness</u> Services



2009 Influenza A(H1N1) Monovalent Vaccine Provider Agreement

PIN: ____

Facility Name:

H1N1 Immunization Provider Names and applicable medical/nursing/other licensure numbers

Your participation in the 2009 Influenza A(H1N1) monovalent vaccine vaccination effort is greatly appreciated as a vital service that will protect individuals and the public against 2009 H1N1 influenza. The 2009 Influenza A (H1N1) monovalent vaccine has been purchased by the federal government as a means of protecting the public against 2009 H1N1 influenza. It is being made available to immunization providers working in partnership with state and local public health departments to vaccinate individuals for whom the vaccine is recommended. This Provider Agreement specifies the conditions of participation in the 2009 Influenza A(H1N1) monovalent vaccine vaccination effort in the U.S. and must be signed and submitted to the immunization program prior to receipt of the vaccine.

The immunization provider agrees to:

- 1. Administer the 2009 Influenza A(H1N1) monovalent vaccine according to the recommendations of CDC's Advisory Committee on Immunization Practices as adopted by the Centers for Disease Control and Prevention.
- 2. Store and handle the vaccine in accordance with the package insert provided with the vaccine including in compliance with cold chain requirements.
- 3. Provide a current Vaccine Information Statement to each individual before vaccination, and answer questions about the benefits and risks of vaccination, including different indications for live versus inactivated vaccines.
- 4. Record in the patient's medical record or in an office log the date of administration, the site of administration, the vaccine type and lot number, and the name of the immunization provider for each individual vaccinated. The record must be kept for a minimum of three years following vaccination.

 Report moderate and severe adverse events following vaccination to the Vaccine Adverse Event Reporting System (http://vaers.hhs.gov/contact.htm).

In addition, the provider:

- 6. Can not charge patients, health insurance plans, or other third party payers for the vaccine, the syringes or the needles as these are provided at no cost to the provider. The provider/facility is also prohibited from selling H1N1 vaccine, syringes or needles.
- 7. May charge a fee for the *administration* of the vaccine to the patient, their health insurance plan, or other third party payer. The administration fee cannot exceed the regional Medicare vaccine administration fee. If the administration fee is billed to Medicaid, the amount billed cannot exceed the state Medicaid administration fee.
- 8. May either administer the 2009 Influenza A (H1N1) monovalent vaccine for free to individuals who cannot afford the administration fee, or refer these individuals to a public health department clinic or affiliated public health provider for vaccination.
- 9. Must report the number of doses of 2009 Influenza A (H1N1) monovalent vaccine administered to individuals as requested by the state or local public health department.
- 10. Must report to the state health department the number of doses of vaccine that were not able to be used because the vaccine expiration date was exceeded or the vaccine was wasted for other reasons. These doses must be disposed of in accordance with state regulations for biological waste.
- 11. Are strongly encouraged to provide an immunization record card to the vaccine recipient or parent/guardian to provide a record of vaccination, to serve as an information source if a Vaccine Adverse Event Reporting System report is needed. Immunization cards will be included in each shipment of vaccine.

Receipt of H1N1 vaccine shall constitute acceptance of the terms of this agreement. Agreed to on behalf of the above-named providers and facility(ies):

(signed or electronic submission)

(printed)

Medical Director

Date



Division of Public Health Services

Office of the Assistant Director Public Health Preparedness Services



Dear Provider,

The Arizona Dept. of Health <u>requires</u> the following Ordering, Re-ordering, Storage & Handling guidelines to ensure the novel H1N1 influenza vaccine is delivered to the correct practice and remains viable and potent. Decreased potency can result in a poor immune response for patients. More detailed vaccine storage & handling information can be found at <u>www.azdhs.gov/flu/h1n1/index.htm</u> or <u>http://www2a.cdc.gov/vaccines/ed/shtoolkit/default.htm</u>.

Ordering, Re-ordering, Storage and Handling Novel H1N1 Influenza Vaccine

Ordering/Re-ordering Instructions for H1N1 influenza vaccine:

- Use the Novel H1N1 INFLUENZA VACCINE ORDER/REPORTING FORM 2009-2010 (included in this packet). Use this form only to order/re-order H1N1 vaccine (form and instructions are included in the packet)
- o <u>Complete all required (*) sections</u> of the form before emailing, mailing or faxing it to the Vaccine Center
 - Email address: TBD
 - Mailing address: Vaccine Center,
 - Fax:
- Your PIN (Personal Identification Number) must be on all forms

Note: During a time of limited vaccine, you may receive all, some or none of your initial order. This will be dependent upon where your patients fit in the priority groups and where the initial supply of vaccine will have the greatest impact. Vaccine will be shipped as soon as it becomes available. You will be notified when your vaccine order is submitted.

Acceptable refrigerators:

- Standard 2 door household refrigerator
- o Commercial refrigerator
- Single door refrigerator (no freezer compartment)

Unacceptable refrigerators:

• Dormitory style refrigerators

Storage and handling:

- o Thermometers should be placed in the center of the refrigerator
- Refrigerator temperatures should be taken and recorded twice daily upon arrival in the morning and before leaving in the afternoon/evening
- Store vaccines at 35º to 46º F (2° and 8°C)
- DO NOT place influenza vaccine in the freezer or store lower than 35°F
- If temperatures go outside **35**° to **46**° **F** (**2**° and **8°C**), the vaccine must be discarded.
- Vaccines ONLY should be stored in the refrigerator no food or drinks
- DO NOT place vaccines against the sides or back of the refrigerator air must be able to circulate around the vaccine
- o DO NOT store vaccines in the door or in crispers
- Place water bottles in the door of the refrigerator to maintain refrigerator temperatures in the event of a power outage or refrigerator failure
- o Post a "Do Not Unplug the Refrigerator) sign by the outlet and on the refrigerator
- o If possible, use a plug guard or tape the refrigerator cord to the wall to prevent accidental unplugging
- Have an emergency plan in place that includes the name(s) and phone number(s) of who to contact in case of a power outage/refrigerator failure. The plan should also include what to do with the vaccine
- DO NOT pre-draw vaccine before a clinic
- o If vaccine was pre-drawn and there is vaccine left at the end of the day, it must be discarded.



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Vaccine Safety Information for Providers Giving Novel H1N1 Influenza Vaccine

Any clinically significant adverse event that occurs after any vaccine should be reported to the Vaccine Adverse Events Reporting System (VAERS), even if you are uncertain if there is any causal relationship. Report forms for VAERS are available online at <u>http://vaers.hhs.gov</u> or can be obtained by calling **between**.

Important Points

- Influenza vaccines are very safe and rarely have any serious side effects
- There is no information to suggest that the novel H1N1 influenza vaccine will have any more side effects than regular seasonal influenza vaccine
- The novel H1N1 influenza vaccine has been developed using the same technology for production of seasonal influenza vaccines
- The 1976 swine flu vaccine was associated with an increased frequency of Guillain-Barré Syndrome (GBS), estimated at one additional case of GBS per 100,000 persons vaccinated
- Influenza <u>infection</u> can be a trigger for GBS. GBS is four to seven times more likely to occur after influenza <u>infection</u> than after influenza vaccination
- Novel H1N1 influenza can result in serious illness and death, so novel H1N1 influenza vaccine is an important tool to prevent these complications

Safety measures

Since the novel H1N1 influenza vaccine is a new vaccine, and in light of the small but statistically significant increase in GBS after the 1976 swine flu vaccine, the following vaccine safety measures will be implemented in the US.

- VAERS will be carefully monitored for adverse events reported after novel H1N1 influenza vaccine to allow investigation for any causal link.
- Vaccine Safety Datalink (VSD) is a data bank of clinical information from large health maintenance organizations in the US that covers about 3% of the US population. Adverse events that could be temporally related to novel H1N1 vaccination will be looked for and investigated
- The Centers for Disease Control and Prevention will conduct active surveillance for patients with GBS. In addition, practitioners who see GBS in patients after any vaccination should report the event through VAERS

Some examples of adverse events after vaccination that should be reported to VAERS

- Events listed on the VAERS Table of Reportable Events Following Vaccination (such as anaphylaxis, chronic arthritis, brachial neuritis, encephalopathy, encephalitis, thrombocytopenia, polio-like paralysis or death). See the full list at: <u>http://vaers.hhs.gov/pdf/ReportableEventsTable.pdf</u>
- Adverse event with hospitalization, life threatening illness, or disability
- Neurologic illness such as seizures or Guillain-Barré syndrome

For further questions about VAERS, contact the Arizona Immunization Program Office a



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*PIN:

Novel H1N1 Influenza Vaccine Order/Reporting Form 2009-2010

*Practice/Provider name:		*Dat	e started: *Date	ended:
*Name of person submitting form:	*Fax number wit	h area code:	*Phone number # w	vith area code:
*Email address of person submitting form:				
Vaccine Presentations	Doses	Doses	*Doses	Doses
	Administered	on Hand	Requested	Shipped For VFC use only
Influenza - Inactivated				
6 months through 35 months of age				
0.25 mL Pre-filled syringe				
(Preservative free) 10 syringes/box				
(May be available in late October)				
Influenza - Inactivated				
4 years of age and older				
0.5 mL Pre-filled syringe				
(Preservative free) 10 syringes/box				
Influenza - Inactivated				
3 yrs – 18 yrs of age				
5.0 mL Wulti-dose viai 10 dose viai/box				
Influenza - Live attenuated hasal spray				
2 yis - 54 yis 01 dge				
Preservative free) 10 spravers/box				

*Based on availability of influenza vaccines.

Additional doses of both Live and Inactivated Influenza vaccines can be ordered on this form as long as all sections of this form are completely filled out.

To order additional vaccine, use this Order/Reporting Form.

For ADHS Office Use Only
Date Received:
Date Entered in Spreadsheet:

To order H1N1 Influenza Vaccine:

- 1. First order: complete ALL sections at top of form (except Start and End Dates)
 - a. PIN
 - b. Practice/provider name
 - c. Start Date
 - d. End Date
 - e. Name of person submitting the form
 - f. Email address of person submitting form
 - g. Fax number with area code
 - h. Phone number with area code
 - i. Doses Requested <u>in multiples of 100 doses smaller amounts will not be accepted</u>) for each formulation Example:
 - 1) 100 doses of inactivated influenza vaccine, .25mL, P-Free, pre-filled syringes (6 mos 35 months of age)
 - 2) 200 doses of inactivated influenza vaccine, 0.5mL, P-Free, prefilled syringes (4 years of age and older)
 - 3) 100 doses of Live attenuated influenza nasal spray vaccine, 0.5mL single dose sprayers (2 yrs 54 yrs of age)

If you did not receive all the doses ordered on the first order, you must re-order the doses you didn't receive – in multiples of 100 doses – as indicated below. Each re-order must be for multiples of 100 doses. If you can't use 100 doses, you cannot split an order with another provider.

- 2. Re-order: complete ALL *sections at top of the form including,
 - a. Start and End date of report i.e. start date: 7/1/09 end date 7/31/09
 - b. Number of doses administered since last order.
 - c. Number of doses currently on hand (inventory)
 - d. Number of doses requested (in multiples of 100 doses for each formulation)
- 3. Submit order/re-order by email, mail or fax:
 - a. Email address: TBD
 - b. Mail: Vaccine Center,
 - c. Fax:

(* required information)



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H1N1 Vaccine Reporting Requirements

<u>ALL</u> practices administering Novel H1N1 vaccine must report simple, aggregate data on a weekly basis using Survey Monkey, as described below:

Every Monday before 12 noon, go to

http://www.surveymonkey.com/s.aspx?sm=SEJ_2bAl1_2bzBpRFkg_2bc7WC_2bQ_3d_3d, You will be asked to report the following information:

- County
- Practice and contact name
- Start and end dates of the report (Sunday through Saturday of the previous week)
- Number of doses administered during the week to age groups 6-23 months, 24-59 months, 5-18 years, 19-24 years, 25-49 years, 50-64 years, and ≥ 65 years
- Total number of doses administered
- Number of doses wasted or expired
- If you choose not to respond online, print the reporting form and fax to (602) 364-3285. Results should be reported to ADHS no later than 12 noon each Monday.

If necessary, corrected or updated reports for previous weeks can be submitted. Please be sure to indicate the report dates correctly.

You will receive a weekly reminder email to complete the Survey Monkey tool.

H1N1 VACCINE DOSES ADMINISTERED AGGREGATE COUNTS WEEKLY REPORTING FORM

Please send completed forms via fax to the second of a weekly basis before Monday at 12:00pm.

REPORTER INFORMATION

County:	
Clinic:	
Name:	
Telephone:	

AGGREGATE COUNTS

Report Period Start Date (Sunday):	*	
Report Period End Date (Saturday):		

VACCINE: H1N1 INFLUENZA H1N1 2009 - ALL FORMULATIONS

AGE GROUP

Range	# of Doses Administered
6-23 months	
24-59 months	
5-18 years	
19-24 years	
25-49 years	
50-64 years	
≥ 65 years	
TOTAL:	

NUMBER OF DOSES

Dose Type	# of Doses Administered
Number of doses administered to patients	
Number of doses wasted or expired	
TOTAL	

ARIZONA DEPARTMENT OF HEALTH SERVICES ~ ARIZONA IMMUNIZATION PROGRAM OFFICE



to CRA by midnight each Tuesday.



Arizona H1N1 Joint Information System Concept of Operations

BACKGROUND

The Arizona Department of Health Services (ADHS), Division of Public Health Services (PHS), Bureau of Public Health Emergency Preparedness (PHEP) is working with the Arizona Division of Emergency Management as well as other state and local agencies to develop a comprehensive communications strategy in preparation for a second wave of the Novel H1N1 Influenza (Swine Flu). There is a true need to establish one repository for all H1N1-related messaging in Arizona. It is imperative that public information officers and officials across the state use consistent messages for all public education and outreach efforts. Messaging to primary healthcare providers, emergency medical service providers, and other healthcare stakeholders must also be carefully coordinated and consistently distributed. ADHS will use grant funds to hire risk communication contractors who will oversee the establishment and operation of a statewide Joint Information System (JIS). The JIS will serve as a clearinghouse for public information messages, public service announcements, as well as guidelines and health alerts for clinicians. This coordinated approach will help ensure that Arizonans receive consistent, accurate information throughout the duration of the H1N1 pandemic.

PARTICIPANTS

Participants in the JIS will include: public health agencies, emergency management agencies, hospitals, other state and local (county, tribal, municipal) government agencies, first responders, emergency medical services, schools, critical infrastructure, and other private sector partners as needed.

FUNCTIONAL AREAS

The JIS will encompass three functional areas: news media, advertising and social marketing materials, and clinical information and health alerts. Representatives from ADHS, ADEM, and other participating entities will provide oversight for each of these functional areas.

News media: The JIS will function as a repository for all H1N1 content distributed to the media as well as information released by the media. Entities participating in the JIS will be strongly encouraged to submit any news releases or speaking points to the JIS before they are distributed to the media, but will not be required to do so. Additionally, the JIS will produce content for participating agencies to use as they see fit.

Advertising and Social Marketing: The JIS will function as a coordination entity for the development and dissemination of marketing materials related to statewide H1N1 responses. Media distribution plans will be coordinated at the JIS. Additionally, content will be created and shared through the JIS.

Clinical Information and Health Alerts: Clinical information and health alerts will not be created at the JIS. However, all clinical guidance and health alerts will be electronically stored in the JIS SIREN Portal and this information will be available for the development of public information materials.

DELIVERABLES

The JIS staff will be responsible for producing the following deliverables:
- Daily updates (to be posted on the SIREN Portal)
- Weekly and/or daily situation reports as needed
- Speaking points for news conferences/media
- News releases (which can be adapted for local distribution)
- Assist with messages disseminated at call centers
- Social marketing materials
- Other collateral material as needed

APPROVAL PROCESS

To ensure timely approval of messaging, an approval team will be selected from a pool of participating agencies. JIS participants will be assigned to work a virtual, two-week shift in the JIS. The approval team will be comprised of no more than five public information officers or subject matter experts from participating agencies. The approval team will include:

- One or two representatives from state agencies (usually public health or emergency management)
- One or two representatives from local agencies (usually county/tribal public health or emergency management)
- One or two representatives from a hospital/healthcare agency or other private sector entity

This approval team will be coordinated by the Joint Information System Coordinator, which will be a temporary position contracted by ADHS.

TERMS OF PARTICIPATION

Participants in the JIS will be encouraged and expected to use materials produced by the JIS team without making substantial changes to wording or content. Materials and messaging can be modified to include information specific to local responses, but major deviations from JIS approved content may result in inconsistent messaging across the state.

Participating entities will be encouraged to have representatives attend meetings and workshops associated with the JIS, utilize the JIS SIREN Portal, and adhere to deadlines for the development and dissemination of messaging.

Documents produced by the JIS approval team will have a specific deadline. All participants in the approval team must adhere to these deadlines to ensure timely distribution of information.

Members of the JIS approval team must be available for weekly and/or daily meetings to discuss priorities and assignments. The JIS Coordinator will be responsible for scheduling and coordinating these meetings.

ADHS H1N1 Communications Flowchart



Summary of ADHS/CDC H1N1 Recommendations by Group and Setting

	Exclusion ⁺	Infection Control	Vaccination Priority*	Guidance link	CDC Policy	ADHS Policy
Setting						
Schools	Students and staff with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or chills, without use of fever- reducing medicines and regardless of whether or not they are using antiviral drugs	 Separate ill students and staff Send sick kids home Encourage parents to keep ill children at home Hand hygiene and respiratory etiquette Routine Cleaning 	Students: High Staff: Medium (unless they are in another high risk category	Guidance for School (K-12) Responses to Influenza during the 2009-2010 School Year: <u>http://www.azdhs.gov/flu/h1n1/pdfs/childcare/A</u> <u>DHSK-12Guidance.pdf</u> Arizona Department of Health Services Guidance for Responses to Influenza for Institutions of Higher Education <i>(under development)</i> <u>http://www.azdhs.gov/flu/h1n1/childcare.htm</u>		\checkmark
Childcare/Preschool (pending approval)	Students and staff with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or chills, without use of fever- reducing medicines and regardless of whether or not they are using antiviral drugs	 Separate ill students and staff Send sick kids home Encourage parents to keep ill children at home Hand hygiene and respiratory etiquette Routine Cleaning 	Children: Highest Staff: Medium (unless they are in another high risk category or the facility cares for children less than 6 months of age)	Guidance for School (K-12) Responses to Influenza during the 2009-2010 School Year: http://www.azdhs.gov/flu/h1n1/childcare.htm	\checkmark	
Long- Term Care and Other Residential Facilities (pending approval)	24 hours after symptoms resolve	 Staff should stay home when sick Hand hygiene and respiratory etiquette Standard Precautions Surgical mask within 6 feet of a patient with a febrile respiratory illness fit-tested N-95 respirator or PAPR, eye protection, gown and gloves if conducting aerosol- generating procedures 	Patients: Medium (unless they are in another high risk category) Staff: Highest	Influenza A (H1N1) Virus Infection in a Healthcare Setting (including management of ill health care workers): http://www.azdhs.gov/flu/h1n1/pdfs/providers/A DHSInfection%20Control%20Guidance7-7- 09.pdf	\checkmark	

*Highest: should be prioritized for vaccination if vaccine is in short supply; High: ACIP recommendations for prioritization; Medium: recommended for vaccination if ample H1N1 vaccine is available. *Exclusion criteria may be subject to change.

Summary of ADHS/CDC H1N1 Recommendations by Group and Setting

	Exclusion ⁺	Infection Control	Vaccination Priority*	Guidance link	CDC Policy	ADHS Policy
Populations/Groups						
Health Care Workers	7 days after symptoms began or until all symptoms are gone, whichever is longer.	 Staff should stay home when sick Hand hygiene and respiratory etiquette Standard Precautions Surgical mask within 6 feet of a patient with a febrile respiratory illness Fit Tested N-95 respirator or PAPR, eye protection, gown and gloves if conducting aerosol- generating procedures 	Highest	Influenza A (H1N1) Virus Infection in a Healthcare Setting (including management of ill health care workers): http://www.azdhs.gov/flu/h1n1/pdfs/providers/A DHSInfection%20Control%20Guidance7-7- 09.pdf	\checkmark	
Laboratory Workers	Those with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or chills, without use of fever-reducing medicines and regardless of whether or not they are using antiviral drugs.	 Laboratory Coat Gloves Eye Protection Facemask 	High	H1N1 Flu (Swine Flu): Resources for Laboratories: http://www.azdhs.gov/flu/h1n1/lab.htm		
Emergency Medical Services with Direct Patient Care	7 days after symptoms began or until all symptoms are gone, whichever is longer	 Surgical mask and disposable non-sterile gloves, eye protection and gown if patient symptomatic with ILI Fit-tested disposable N-95 respirator if patient requires aerosol generating procedure (such as CPR, intubation, or suctioning) Vehicle/Equipment decontamination Hand hygiene and respiratory etiquette 	Highest	Guidance and Information for Emergency Medical Services: <u>http://www.azdhs.gov/flu/h1n1/firstrespond.htm</u>		\checkmark

*Highest: should be prioritized for vaccination if vaccine is in short supply; High: ACIP recommendations for prioritization; Medium: recommended for vaccination if ample H1N1 vaccine is available.

⁺Exclusion criteria may be subject to change.

Summary of ADHS/CDC H1N1 Recommendations by Group and Setting

	Exclusion ⁺	Infection Control	Vaccination Priority*	Guidance link	CDC Policy	ADHS Policy
Pregnant Women	Those with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or chills, without use of fever-reducing medicines and regardless of whether or not they are using antiviral drugs.	 Stay home when sick Hand hygiene and respiratory etiquette Avoid close contact with sick people Seek healthcare early for symptoms 	Highest	What Pregnant Women Should Know About H1N1 Virus: http://www.azdhs.gov/flu/h1n1/providers.htm Considerations for Pregnant Women in Education, Child Care, and Health Care: http://www.azdhs.gov/flu/h1n1/providers.htm	\checkmark	
Infants/Children	Those with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or chills, without use of fever-reducing medicines and regardless of whether or not they are using antiviral drugs.	 Stay home when sick Hand hygiene and respiratory etiquette Avoid close contact with sick people Seek healthcare early for symptoms 	6 mo- 4yr: Highest 5yr-18yr: High (unless in another high risk category/ have chronic medical conditions)	Prevention and Treatment of Novel Influenza A (H1N1) Influenza Virus Infection in Infants and Children: <u>http://www.cdc.gov/h1n1flu/childrentreatment.h</u> <u>tm</u>	\checkmark	
Hospitalized Persons	Isolation should be continued for 7 days after symptoms began or until all symptoms are gone, whichever is longer.	 Hand hygiene and respiratory etiquette Avoid close contact with sick people Place directly in individual room with the door kept closed 	Medium (unless they are in another high risk category)	Influenza A (H1N1) Virus Infection in a Healthcare Setting (including management of ill health care workers): http://www.azdhs.gov/flu/h1n1/pdfs/providers/A DHSInfection%20Control%20Guidance7-7- 09.pdf		\checkmark
General Public	Those with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or chills, without use of fever-reducing medicines and regardless of whether or not they are using antiviral drugs.	 Stay home when sick Hand hygiene and respiratory etiquette Avoid close contact with sick people 	Medium (unless they are in another high risk category)	General Information and Guidance (including what to do if you get flu-like symptoms: http://www.azdhs.gov/flu/h1n1/generalInfo.htm	\checkmark	

*Highest: should be prioritized for vaccination if vaccine is in short supply; High: ACIP recommendations for prioritization; Medium: recommended for vaccination if ample H1N1 vaccine is available. *Exclusion criteria may be subject to change.



Version: 8/26/2009



Monthly Surveillance Report - May 2010

The Epidemiology program of the Pima County Health Department investigated a total of 216 communicable disease reports in May 2010. Not all communicable disease reports yield laboratory confirmed reportable conditions. Of the cases reported, 195 were categorized as confirmed, probable, or suspect cases.

Investigations were completed for the following events of public health importance for May 2010:

Legionellosis

Case was a 51 year old diagnosed with legionellosis. Case expired from contributing health complications due to the infection and other underlying health conditions.

Mumps

There were 3 cases of mumps reported in Pima County. Two of the cases were determined as suspect cases. The first suspect case was a 30 year old who presented with swelling of the bilateral parotid gland. The case worked in a child care center. All contacts were investigated and followed; none of the contacts developed symptoms. The second suspect case was a 27 year old who presented with parotitis and fever. Case had recently traveled to Las Vegas in the weeks prior to onset of illness.

Pima County had 1 confirmed case of mumps. The case was a 22 year who recently traveled to Pima County from Iowa where there was a mumps outbreak. The case was epidemiologically linked to a close contact in Iowa who was tested and confirmed with mumps. The case was isolated and close contacts in Pima County and Iowa were notified. There was no further spread of mumps from this case but measures were taken to enhance mumps surveillance in Pima County.

Pertussis

There were 2 cases of pertussis reported in Pima County. The first case was a 16 year old who presented with paroxysmal coughing. The case had no travel outside of Arizona. The second case was a 44 year old; the investigation is ongoing.

Binational

In the month of May, there were no joint investigations performed between Pima County Health Department and the Arizona Department of Health Services, Office of Border Health.

Outbreaks

Norovirus

Outbreak reported in May of vomiting and diarrhea amongst staff and residents of a local adult living facility. Of the 128 staff and residents, there were a total of 24 reported symptomatic cases. Collected stool specimens yielded the presence of Norovirus. Infection control practices were applied. Pima County's Consumer Health and Food Safety assisted in investigations. Symptoms resolved in all cases.

Salmonella

The CDC is investigating a cluster of *Salmonella Paratyphi* across 9 states. There was one case of *S. Paratyphi* in Pima County. The case is a 5 year old. The case did not travel outside of Pima County but did consume ground beef and poultry prior to illness. Currently, the CDC has not yet established a pattern. Previously, this pattern was associated with exposure to fish tanks.

Influenza and RSV

The Epidemiology Program of the Pima County Health Department continued its participation in active disease surveillance at 10 local sentinel sites. Data is used to establish future trends in influenza and influenza-like illness (ILI) reporting in local area. Cases are reported that meet the case definition for ILI (fever $\geq 100^{\circ}$ F or 37.8°C oral or equivalent and cough and/or sore throat in the absence of a known cause) to the Arizona Department of Health Services and the Pima County Health Department.

RSV or respiratory syncytial virus is a respiratory virus that infects the lungs and breathing passages. RSV can cause a variety of respiratory illnesses like bronchiolitis and pneumonia. RSV tends to affect young children and the elderly.

RSV and influenza virus have similar clinical symptoms, similar periods of circulation, and cases often present with both. RSV is also an important pathogen contributing to the burden of influenza-like illness in communities. For these reasons, RSV and influenza are graphed together. The following figure depicts the number of confirmed and probable influenza and RSV cases reported by week to the Pima County Health Department.



* Data collected from MEDSIS 6/8/2010 extract, based on date reported to the County.

Because of the significantly decreased number of influenza and RSV cases reported in Arizona, the Arizona Department of Health Services (ADHS) has suspended influenza surveillance calls to county health departments until the fall 2010 influenza season.

Attachment T

National Retail Data Monitor (NRDM)

NRDM monitors sales of over-the-counter (OTC) healthcare products to identify disease outbreaks as early as possible. No alerts were issued in the month of May. A total of 65 pharmacies reported sales (promoted and unpromoted) of OTC products. The following is a graphical representation of the unpromoted sales of common OTC medications during May 2010 by week.



Syndromic Surveillance

BioSense monitors the frequency of 11 syndrome categories identified at Department of Defense (DoD) and Department of Veterans Affairs (VA) clinics. Health status indicators in BioSense did not yield alerts for Pima County in May 2010.



Summary of Reportable Diseases Pima County (May 2010 and 2009)

Morbidity	No. of Cases	No. of Cases
	May 2010	May 2009
Amebiasis	0	1
Aseptic meningitis, viral	1	3
Campylobacteriosis	12	11
Coccidioidomycosis	88	60
Giardiasis	2	8
Hepatitis A	3	1
HIV	12	6
Meningococcal invasive disease	0	0
MRSA	15	22
Mumps	3	0
Measles	0	0
Pertussis	2	2
Rabies (animal)	2	8
Rubella	0	0
Salmonellosis	6	19
STD: Chlamydia	168	252
Gonorrhea	18	21
Syphilis *	1	3
Shigellosis	2	7
Streptococcus Group A, invasive	2	2
Streptococcus Group B, invasive	0	0
Streptococcus pneumoniae	14	11
Tuberculosis	1	1
Total		

Statistical data reflects communicable disease reports of confirmed, probable, and suspect cases received via the Medical Electronic Disease Surveillance Intelligence System (MEDSIS) from 5/1/2010 to 5/31/2010 and from 5/1/2009 to 5/31/2009. STD data was

extracted from the NATP database on 6/7/2010. TB data was provided by the Tuberculosis Control Program. Data are provisional and subject to change. Cases from 2010 may still be under investigation.

*Includes primary, secondary, and early-latent. Data for May 2010 represents STD clinic clients only. There is a lag time in reporting.

PIMA COUNTY HEALTH DEPARTMENT DISEASE REPORTING SYSTEM AND INVESTIGATION PROTOCOL

I. Normal work day procedure

Telephone number:

Days and hours covered:

Non-holidays Monday through Friday 8 am through 5 pm

Telephone coverage:

A trained epidemiologist or communicable disease investigator is assigned to telephone duty for the two work shifts, 8 am to 12:30 pm and 12:30 pm to 5:00 pm.

A trained epidemiologist or communicable disease investigator is available for back up calls at all times.

Telephone duty rosters for each month are scheduled and distributed internally prior to the first of each month.

Bilingual staff is available within the Communicable Disease Prevention Division at all times.

Incoming calls triage:

Calls are answered by administrative support staff, and transferred to the epidemiologist or communicable disease investigator on call.

Calls are answered in the order they are received. If the person on phone duty is already on a call, the administrative support person will take a message and hand deliver it to the phone duty person. Messages will be answered as soon as possible, and within one hour. *There may be a special situation during an incoming call that requires immediate response. In this case, the phone call should be transferred to the back up epidemiologist if the phone duty person's line is busy.*

Medical emergencies are told to hang up and call 911.

Callers requesting medical care are referred to their primary care doctor, or if none is available, to one of the local health clinics which provide low cost or sliding fee scale care.

Callers requesting Pima County Health Department services such as immunizations, sexually transmitted disease screening, or animal emergencies are referred to the appropriate office. If possible, phone call will be transferred. The caller should be given the phone number before the transfer is attempted in case the call is lost. When transfer is not possible, the caller will be given the correct telephone number.

Calls relating to disease reporting are logged into an electronic phone log that is shared among the phone duty staff. Log entries should include: Name and contact information of caller Suspected disease Purpose of call Description of action taken/information given

Call disposition:

COMMUNICABLE DISEASE REPORT: An ADHS Communicable Disease Report form is initiated on each call related to a reportable disease. When possible, this should be completed using MEDSIS. By the end of the work day in which the call was received, the form will be forwarded to the surveillance team leader, or back up, for assignment.

NOTIFICATION: If the report involves an outbreak or a 24 hour reportable disease designated in Guidelines as requiring early notification, the person on phone duty will notify the chief medical officer, or back up, and the epidemiology manager, or back up, within fifteen minutes of receiving call.

INVESTIGATION: The staff person on call assures that information is obtained from each call to provide the investigator with the ability to continue with the investigation. This includes contact information, disease/diagnosis, clinical symptoms, any information about laboratory results, immunization status if pertinent, and reporter information. Case demographic information should also be asked including gender, date of birth, race/ethnicity, occupation, and pregnancy status.

PHYSICIAN BACK UP: Chief medical officer or physician on call is available at all times to answer questions regarding reportable diseases. Medical officer is available in person or by cell phone.

PUBLIC HEALTH EMERGENCIES: Potential public health emergencies are reported to the chief medical officer, epidemiology manager, and bioterrorism coordinator within 15 minutes. Chief medical officer is responsible for determining the nature of the emergency and the required response. Chief medical officer, bioterrorism coordinator and epidemiology manager have a back up person in place at all times. If any of these cannot be contacted, the designated back up person should be notified immediately. The staff person receiving such a call is the designated Incident Commander until relieved by the Chief Medical Officer. In the case of suspicious white powder calls, the person answering the phone shall implement the Management Guidelines for Responders to Suspected Anthrax Incidents/Suspicious Powdery Substance, included as Appendix 1 to these protocols.

System Evaluation: Epidemiology manager evaluates telephone coverage, telephone response performance, and data collection efforts on a yearly basis.

II. After hours procedure

Telephone number:

Days and hours covered:

Monday through Friday 5 pm till 8 am County holidays 8 am till 5 pm Weekends Friday 5pm till Monday 8 am

Telephone coverage:

A trained epidemiologist, medical officer, or senior communicable disease investigator is assigned to after hours telephone duty for one week time periods. All staff members trained for disease investigation carry a county issued cell phone that is to be on and working at all times. The preferred method for contact is by telephone to the on call person at his or her home phone number, and then to the county cell phone number. The contracted answering service has a list of home and cell phone numbers for all after hours call duty personnel.

After hours telephone duty rosters for each month are scheduled and distributed internally, to hospital infection control practitioners, and to the Arizona Department of Health Services, Office of Infectious Diseases prior to the first of each month.

Answering service:

Rincon Answering Service is under contract to provide after hours, weekend, and holiday telephone answering.

The designated phone number rings to a message that directs the caller to either wait on the line for an operator if the call relates to a 24 hour reportable disease or an animal bite, or to call back during the regular business day for routine complaints and questions.

An answering service staff person answers each caller who waits on the line. The nature of the call is elicited. The operator who triages the call makes one of the following actions:

- 1. Calls referring to animal bites and other animal emergencies are referred to the Pima County Animal Care Center. The Animal Care Center on call staff will then contact the epidemiologist on call to handle the medical aspects of the case including risk assessment for the need for rabies prophylaxis.
- 2. Calls relating to tuberculosis are referred to the Pima County Health Department TB Clinic manager or the TB clinic medical director.
- 3. Calls relating to urgent restaurant or sanitation issues are referred to the on call staff for Consumer Health and Food Safety. Restaurant and sanitation

complaints are noted, and the relevant information is faxed to the Pima County Health Department Office of Consumer Health and Food Safety.

4. Calls relating to a 24 hour reportable disease are referred to the epidemiologist on call.

The answering service is responsible for contacting the PCHD person on phone duty, or their backup. If the person on phone duty cannot be reached, the answering service person will try to contact the back up on call person. This is the person who is on duty for the next one week period. If neither of these individuals can be reached, the answering service will contact the Chief Medical Officer.

Incoming calls triage:

Calls are returned in the order they are received. Messages will be answered as soon as possible, and within one hour.

Medical emergencies are told to hang up and call 911

Callers requesting medical care are referred to their primary care doctor, or if none is available, to one of the local health clinics which provide low cost or sliding fee scale care.

Callers requesting Pima County Health Department services such as immunizations or sexually transmitted disease screening are referred to the appropriate office, and given the office's phone number and hours of operation.

Calls regarding animal bites are screened for rabies risk and possible need for prophylaxis.

Call disposition:

COMMUNICABLE DISEASE REPORT: An ADHS Communicable Disease Report form is initiated on each call related to a 24 hour reportable disease. As much supporting documentation as is possible, such as patient demographics or date of onset, are completed by the epidemiologist or communicable disease investigator who receives the call. Information from the original call is given to the surveillance team leader, or back up, no later than the start of the next work day. The case will be entered into MEDSIS as soon as possible

NOTIFICATION: Any report regarding an outbreak or 24 hour reportable disease will be reported as described in Notification Protocols, or at the start of the next work day to the chief medical officer, or back up and the epidemiology manager, or back up. Cases or reports that may represent a public health emergency are reported to the chief medical officer, epidemiology manager, and bioterrorism preparedness manager within 15 minutes.

INVESTIGATION: The staff person on call assures that information is obtained from each call to provide the investigator with the ability to continue with the investigation. This includes contact information, disease/diagnosis, clinical symptoms, any information about laboratory results, immunization status if pertinent, and reporter information. Case demographic information should also be asked including gender, date of birth, race/ethnicity, occupation, and pregnancy status.

PHYSICIAN BACK UP: Chief medical officer or physician on call is available at all times to answer questions regarding reportable diseases. Medical officer is available in person or by cell phone.

PUBLIC HEALTH EMERGENCIES: Potential public health emergencies will be reported to the chief medical officer, epidemiology manager, and bioterrorism coordinator immediately as described above. Chief medical officer will be responsible for determining the nature of the emergency and the required response. Chief medical officer, bioterrorism coordinator and epidemiology manager have a back up person in place at all times. If any of these cannot be contacted, the designated back up person should be notified immediately. The staff person receiving such a call is the designated Incident Commander until relieved by the Chief Medical Officer. In the case of suspicious white powder calls, the person answering the phone shall implement the Management Guidelines for Responders to Suspected Anthrax Incidents/Suspicious Powdery Substance, included as Appendix 1 to these protocols.

System Evaluation: Epidemiology manager will evaluate telephone coverage, telephone response performance, and data collection efforts on a yearly basis. Answering service performance will be evaluated on a monthly basis.

III. Training

Rincon Answering Service personnel receive a monthly on call schedule which includes information about when and how to call the TB clinic, Consumer Health and Food Safety, or Animal Care in addition to the name and contact information of the after hours call person for each week.

Health Department staff who are assigned to after hours call duty are permanent employees of the Disease Control Section. These individuals receive training on after hours phone triage and response on an individual basis from the chief medical officer. IV. References and Resources:

American Academy of Pediatrics, <u>Red Book:2003 Report of the Committee on</u> <u>Infectious Diseases</u>, Pickering ed., 27th Edition, Elk Grove Village IL, American Academy of Pediatrics 2006.

American Public Health Association. <u>Control of Communicable Diseases Manual</u>, Heymann, ed., 18th Edition, Washington D.C., 2004.

Arizona Department of Health Services, <u>Case Definitions for Public Health</u> <u>Surveillance</u>, 2006

Arizona Department of Health Services, <u>Infectious Disease Investigation Manual</u>, 2006.

Centers for Disease Control and Prevention. <u>Epidemiology and Prevention of</u> <u>Vaccine Preventable Diseases</u>, Atkinson, Hamborsky, and Wolfe eds., 9th Edition, Washington D.C., Public Health Foundation, 2006.

Pima County Health Department, <u>Disease Control Protocols</u>, Disease Control, Epidemiology Section, 2000.



MEDSIS Policies and Procedures

Version	Notes	Name	Date
1.0	Original Documentation	D. Akinc	9/8/2005
1.1	Revision 1 changes implemented	D. Akinc	11/22/2005
1.2	Revision 2 changes implemented	D. Akinc	1/20/2006
1.3	Revision 3 changes implemented	D. Akinc	4/24/2006
1.4	Revision 1 changes implemented	V. Joshi	7/31/2006

MEDSIS Policies and Procedures Version History

MEDSIS Abbreviations and Definitions

Abbreviations:

CMR: Confidential Morbidity Report

PHC: Public Health Case; the *morbidity* event associated with a person

Morbidity: Reportable disease or condition

Definitions: Entities and Organizations

Jurisdiction: An entity that has rights to PHC data [e.g. County, Tribe, ADHS]

Primary Jurisdiction: The entity that has edit rights to a PHC

Counting County: County that has case ownership as defined below

Case Ownership:

- Right to edit case until case has submitted to ADHS
- Responsible for case follow-up and investigation.
- Responsible for sharing or transferring case in accordance with policies
- Right to count the case within County
- Right to view case in Reports and Extracts

Definitions: System Actions

Share: Action of giving another County a CMR view of a particular PHC, while retaining edit rights to PHC.

Submit: Action of closing investigation, relinquishing edit rights, and reporting PHC to ADHS

Transfer. Action of sending a PHC to another jurisdiction, designating it as Primary Jurisdiction

Definitions: System Persons

Investigator. Public health person assigned to PHC with responsibilities for investigation and follow-up of PHC

Provider. Health care worker who diagnoses and/or provides medical care for the case-patient with the reportable condition

Reporter. Person who reports the PHC to Public Health

Links:

Arizona Administrative Code (A.A.C.): http://www.azsos.gov/public_services/Title_09/9-06.htm

Case Definitions for Infectious Conditions Under Public Health Surveillance:

ftp://ftp.cdc.gov/pub/Publications/mmwr/rr/rr4610.pdf

Introduction

The policies set forth in this document are for the use of a web-based application, Medical Electronic Disease Surveillance Intelligence System (MEDSIS), to support infectious disease reporting and surveillance activities within the State of Arizona, and are currently drafted for County and State users. These policies are not intended to dictate how the processes of surveillance are carried out within a jurisdiction, instead how MEDSIS should be used to support those processes and uphold the purpose of MEDSIS as a surveillance system. If extenuating circumstances occur, and a jurisdiction believes they will be unable to adhere to a stated policy, they are encouraged to notify the Infectious Disease Epidemiology Section (IDES) at ADHS of the extenuating circumstances, and discuss with IDES strategies for managing it.

The policies set forth in this document shall be performed in compliance with local and state policies regarding confidentiality and protection of patient data. Users are reminded that communications regarding patient-level shall continue to be conducted in a secure fashion (e.g. secure fax, secure email (SIREN), email with reference only to MEDSIS-ID and no patient identifiers).

MEDSIS Policies

1. Purpose (Approved 6/20/2005 MEDSIS PWG)

The Medical Electronic Disease Surveillance and Intelligence System (MEDSIS) is a secure web-based, centralized, person-based disease surveillance system for Arizona. MEDSIS is a statewide system hosted and supported by the Department for use by local health departments for disease surveillance, and for <u>individuals and institutions responsible for reporting communicable diseases</u>. This HIPAA-compliant system is being developed in partnership with local health agencies to enhance disease surveillance and detection of potential outbreaks. Electronic Laboratory Reporting (ELR) from commercial clinical and hospital laboratories will also be available through web entry or daily electronic transmission to MEDSIS, decreasing the burden of paper reporting and allowing instant availability of laboratory test and result information to local health departments.

The design and functionality of MEDSIS meets the federal requirements of the <u>Public Health Information</u> <u>Network functions and specifications</u> version 1.2, the <u>public health logical data model</u> and the architectural elements of the <u>National Electronic Disease Surveillance System</u>. MEDSIS is integrated into the Secure Integrated Response Electronic Notification (SIREN) System and thus, can take advantage of SIREN's alerting capabilities, secure email communications, secure data messaging and translation services, role-based public health directory and failover capacities.

Functionalities available in this first release (MEDSIS 1.0) include:

- Entry of cases directly into system by county health departments, infection control practitioners, and Arizona Department of Health Services (ADHS)
- Immediate jurisdiction-specific viewing of reported or submitted cases
- Assignment of investigators and tracking of investigations by public health users
- Functionality to manage cases under investigation, including addition of disease specific risk information for nine enteric diseases
- Search for cases or patients
- Ability to share a view or transfer cases to another jurisdiction
- Ability to submit cases to ADHS
- Generation of reports
- Download extracts of jurisdiction-specific data for further analysis

Planned future enhancements include:

- Migration to the latest version of the public health logical data model
- Additional functionalities:
 - To track historical addresses
 - To de-duplicate and merge public health cases
 - To automate case definitions
- Incorporation of data edits and business rules
- Addition of the remaining disease-specific observations
- Enhanced reports and extracts
- Inclusion of historical data
- Enhanced integrated electronic laboratory reporting.

The system is housed in a commercial data center served by two power grids, diesel generator and battery cell back up, and 26 internet service providers, six running simultaneously. The site has restricted access and structural security. The application is written in .Net, using and array of redundant SQL servers, integrated data repository and a storage area network. With Microsoft Internet Explorer browser 5.5 or higher, user ID and password, and signed user agreement various levels of access enable external and internal partners to use the system.

For more information on this application, please contact the Electronic Disease Surveillance Program at

2. Case Management

- 2.1. Initial Case Entry and Timeliness:
 - 2.1.1. 24 hour-reportable and one working day-reportable conditions: (Approved 6/20/2005 MEDSIS PWG) Cases of 24 hour-reportable and one working day-reportable conditions shall be entered within one working day of receipt of initial case information.
 - 2.1.2. 5 day reportable conditions: (Approved 7/7/2005 MEDSIS PWG) Cases of 5 day-reportable conditions, excepting Priority 3* conditions shall be entered within three working days of receipt of initial case information.

*See Appendix 1: Reportable Priorities

- 2.1.3. Priority 3* conditions: (Approved 7/7/2005 MEDSIS PWG) Cases of Priority 3* conditions shall be entered within five working days of receipt of initial case information.
 *See Appendix 1: Reportable Priorities
- 2.1.4. Conformance: (Approved 7/7/2005, Revised 1/19/2006 MEDSIS PWG) Health departments may periodically review the timeliness of initial case entry by running system reports, where timeliness refers to adherence to policies 2.1.1 2.1.3. If excessive numbers of cases with late initial entry (cases not entered in accordance with policies 2.1.1 2.1.3) are identified within a County or ADHS, each health department retains the right to:
 - 2.1.4.1. First, submit written documentation and a report of cases with late initial entry to the Epi Supervisor, back-up Epi Supervisor, and the MEDSIS Liaison, and discuss strategies to resolve the issue.
 - 2.1.4.2. Then, if excessive numbers of cases with late initial entry continue to be an issue and are not resolved according to the agreed upon strategies in 2.1.4.1., the issue may be advanced through the organizational hierarchy of the County or State Health Department as necessary to resolve the issue. The MEDSIS Liaison is responsible for providing ADHS with the names, phone numbers, email addresses, position titles, and the hierarchical structure for notifications within their health department.
 - 2.1.4.3. *Special Circumstances*: In situations of special circumstance (e.g. severe shortage of staff or outbreak events that overwhelm county resources), late entry will be tolerated on a situation by situation basis, provided that:
 - 2.1.4.3.1. County notifies ADHS prior to or early in the problematic period, AND
 - 2.1.4.3.2. Cases involving multiple counties that are reported during the period of 'late entry waiver' are exempt from the waiver, and shall be entered in accordance with policies 2.1.1 - 2.1.3.

2.2. Editing Cases

- 2.2.1. Case Updates:
 - 2.2.1.1. Case Priority and Timeliness of Update Entry
 - 2.2.1.1.1. (Approved 7/7/2005 MEDSIS PWG) Case updates and timeliness of update entry refer to the entry of any new information collected on a case, such as through investigation or receipt of new reports. The timelines delineated in this section do not refer to the timeliness of case investigations or submitting cases to ADHS (see section 2.3.3).
 - 2.2.1.1.2. (Approved 7/7/2005 MEDSIS PWG) Updates to entered cases of Priority 1* cases [including updates to record based on newly received information and attachment of electronically-received lab reports] shall occur within two working days of receipt of additional case relevant information.
 - 2.2.1.1.3. (Approved 7/7/2005 MEDSIS PWG) Updates to entered cases of Priority 2* cases [including updates to record based on newly received information and attachment of electronically-received lab reports] shall occur within three working days of receipt of additional case relevant information.
 - 2.2.1.1.4. (Approved 7/7/2005 MEDSIS PWG) Updates to entered cases of Priority 3* cases [including updates to record based on newly received information and attachment of electronically-received lab reports] shall occur within 10 business days of receipt of additional case relevant information.
 *Appendix 1: Reportable Priorities
- 2.2.2. Conformance: (Approved 7/7/2005, Revised 1/20/2006 MEDSIS PWG) Health departments may periodically review the timeliness of update entry by running system reports, where timeliness refers to adherence to policies 2.2.1.1.1- 2.2.1.1.3. If excessive numbers of cases with late update entry (cases not updated in accordance with policies 2.2.1.1.1- 2.2.1.1.3) are identified within a County or ADHS, each health department retains the right to:
 - 2.2.2.1 First, submit written documentation and a report of cases with late update entry to the Epi Supervisor, back-up Epi Supervisor, and the MEDSIS Liaison, and discuss strategies to resolve the issue.
 - 2.2.2.2 If excessive numbers of cases with late entry of updates continue to be an issue and are not resolved according to the agreed upon strategies in 2.2.2.1, ADHS reserves the right to notify the County, and update cases in the system in accordance with policy (2.4)
 - 2.2.2.1. As a last resort, the issue may be advanced through the organizational hierarchy of the County or State Health Department as described in 2.1.4.2 to resolve the issue.

- 2.2.2.2. *Special Circumstances*: In situations of special circumstance (e.g. severe shortage of staff or outbreak events that overwhelm county resources), late update entry will be tolerated on a situation by situation basis, provided that:
 - 2.2.2.2.1. County notifies ADHS prior to or early in the problematic period, AND
 - 2.2.2.2.2. Cases involving multiple counties that are reported during the period of 'late update entry waiver' are exempt from the waiver, and shall be updated in accordance with policies 2.2.1.1.1- 2.2.1.1.4.
- 2.2.2.3. If a County receives updates to a submitted case, they shall refer to 2.3.3.3.
- 2.2.3. *Classification*: (Approved 7/7/2005 MEDSIS PWG, Revised 4/20/2006 MEDSIS PWG) Cases shall be classified in accordance with the Arizona Department of Health Services (ADHS), Office of Infectious Disease Services (OIDS) *Case Definitions for Public Health Surveillance* located at http://azdhs.gov/phs/oids/epi/surv_manual.htm, using an Epi role, as soon as there is enough information to classify the case.
- 2.2.4. *After Submission to ADHS*: (Approved 7/7/2005 MEDSIS PWG) ADHS reserves the right to make changes to cases after they have been submitted to ADHS. If ADHS identifies a data element they would like to change, they will adhere to the process outlined in Appendix 2.
- 2.2.5. After Transfer to another County: (Approved 7/7/2005 MEDSIS PWG) If a case has been transferred from County A to County B, in accordance with policy 2.3.2, County B is not required to notify County A of changes made to the case record.

2.3. Sharing/Transferring

2.3.1. Share: (Approved 6/20/2005 MEDSIS PWG)

The Action of giving another County a CMR view of a particular Public Health Case (PHC), while retaining edit rights to that PHC.

- 2.3.1.1. *Automatic Shares:* Cases are automatically shared with ADHS. When County A transfers a case to County B, or County A submits the case to ADHS, the case is automatically shared with County A.
- 2.3.1.2. *Conditions for Performing Share Function:* The Counting County of a case shall share a given PHC with one or more Counties if the case patient had activities of epidemiological interest in another County, and/or if intervention in another County is necessary.
 - 2.3.1.2.1. Activities of epidemiological interest include but are not limited to:
 - 2.3.1.2.1.1. Case patient acquired condition outside the Counting County
 - 2.3.1.2.1.2. Case patient had contacts outside the Counting County
 - 2.3.1.2.1.3. Case patient had potential for exposing others outside Counting County

- 2.3.1.2.2. *Timeframe for Share*: Cases shall be shared by the Counting County within one working day of receiving information generating need for share.
- 2.3.1.2.3. *Notification of Shared Case*: If intervention in another County is necessary, the Counting County shall notify the other County as soon as possible via telephone. Otherwise, Counting County shall notify the recipient of the Share within one working day via telephone or email.
- 2.3.2. *Transfer* The Action of designating another County as the Counting County
 - 2.3.2.1. Conditions for Transfer: (Approved 7/7/2005 MEDSIS PWG)
 - 2.3.2.1.1. County A shall transfer a given PHC to County B when County A receives data indicting that case-patient's self-defined primary residence is within County B.
 - 2.3.2.1.2. County A shall transfer a given PHC to ADHS when County A receives data indicating that case-patient's self-defined primary residence is outside of the State of Arizona.
 - 2.3.2.1.3. County A may transfer a given PHC to ADHS if County A receives data indicating that case-patient's self-defined primary residence is not within County A, but does not receive data indicating location of case-patient's self-defined primary residence.
 - 2.3.2.2. *Timeliness of Transfer*: (Approved 7/7/2005 MEDSIS PWG) As soon as County A receives information indicating that PHC needs to be transferred they must transfer the case.
 - 2.3.2.3. Notification: (Approved 7/26/2005 MEDSIS PWG) If immediate intervention is required,
 County A shall notify the recipient of the transferred PHC via telephone immediately.
 If transferred case is a 24-hour or one day reportable condition, County A shall notify
 the recipient of the transferred PHC via telephone within one working day.
 - 2.3.2.4. *Conformance:* (Approved 7/7/2005 MEDSIS PWG) If County A does not transfer case in accordance with these policies, then ADHS will contact County A to notify them of the need to transfer a case. ADHS reserves the final right to transfer cases to the Counting County as defined by policy 2.3.2.
- 2.3.3. Submitting to ADHS
 - 2.3.3.1. Conditions for Submitting: (Approved 7/7/2005 MEDSIS PWG)
 - 2.3.3.1.1. 1-Month-to-Close-Cases (all except the Longer-to-Close) shall be submitted to ADHS upon completion of case investigation (including entry of required fields and classification of case), within one month of case initiation.
 - 2.3.3.1.2. Longer-to-Close-Cases (Coccidioidomycosis (Valley Fever); Hepatitis B;
 MRSA; Pertussis; Streptococcal Group A: Invasive disease; Streptococcus pneumoniae) shall be submitted to ADHS upon completion of case investigation

(including entry of required fields and classification of case) within three months of case initiation.

- 2.3.3.1.3. Lost-to-follow-up cases, defined as unsuccessfully attempted contact 3 or more times using 2 or more modes of contact, shall be submitted to ADHS within one month of case initiation, or when designated as lost-to-follow-up for Longer-to-Close morbidities.
- 2.3.3.1.4. (Approved 1/20/2006 MEDSIS PWG) For disease reports reported on individuals living on a reservation, counties shall enter the PHC into MEDSIS and submit the PHC to ADHS, while continuing normal business practices regarding communication with IHS. If the County receives additional information regarding the PHC from IHS after the IHS investigation is complete, they may follow Policy 2.3.3.3.
- 2.3.3.2. (Approved 7/7/2005 MEDSIS PWG) Counties may request from IDES a one month extension for submission on a case-by-case basis.
- 2.3.3.3. Updates after Submission: (Approved 7/7/2005 MEDSIS PWG) If County receives additional information regarding a case after it has been submitted to ADHS, the County shall relay additional information via secure fax or email (Either by utilizing secure email (e.g. SIREN) or by referencing only the MEDSIS-ID and no patient identifiers) to designated ADHS users who update the case within one working day OR ADHS shall transfer the case back to the County who shall update the case, and re-submit the case.
- 2.3.3.4. Incomplete Submitted Cases: (Approved 7/7/2005 MEDSIS PWG) If an incomplete case is submitted to ADHS, and more follow-up by the County is required, an ADHS user shall transfer the case back to the Counting County, and shall notify the user (assigned investigator(s)) of the reason for the transfer referencing the MEDSIS Case ID.
- 2.4. ADHS Users Performing Case Management Functions (Approved 6/20/2005 MEDSIS PWG)
 - 2.4.1. Select users at ADHS may be granted specific County roles within MEDSIS, allowing them access to cases not yet submitted to ADHS, for the purposes of identifying statewide surveillance enhancements or viewing information contained in the extended records that may be critical to disease control or communications with other external partners. These ADHS users shall not perform Case Management functions without notifying the Counting County beforehand.

3. <u>Counting</u>

- 3.1. Jurisdictions (Approved 6/20/2005 MEDSIS PWG)
 - 3.1.1. Cases shall be <u>counted</u> within the first available County based on the following algorithm:
 - 3.1.1.1. County of case-patient's self-defined primary residence, if available, ELSE
 - 3.1.1.2. County of case-patient's physician's office, if available, ELSE
 - 3.1.1.3. County of clinic/hospital where case-patient was admitted, if available, ELSE
 - 3.1.1.4. County of laboratory that performed diagnostic testing on specimens from casepatient
- 3.2. Case definitions (Approved 7/7/2005 MEDSIS PWG)
 - 3.2.1. Cases shall be counted as classified in accordance with MEDSIS policy 2.2.3
- 3.3. Dates (Approved 4/202006 MEDSIS PWG)

3.3.1. Cases shall be <u>counted</u> according to the "Date Reported to Public Health*", a field calculated through analysis of the data extract, based on the earliest available date from: Date Reported to County, Date Submitted to State, or Date Entered.

[* This shall be amended when a field for Date Reported to State is available]

3.3.1.1 *Annual Data Closeout* To finalize the previous year's case counts, all cases counted in a previous year must be submitted by the annual data closing date*.
*The annual data closing date for 2005 data is April 15th, 2006.

*For years 2006 and going forward, the annual data closing date is April 1st.

5. <u>Trainings</u> (Approved 8/11/2005 MEDSIS PWG)

- 5.1. Persons responsible for MEDSIS Trainings
 - 5.1.1. *ADHS*: ADHS shall provide MEDSIS Train-the-Trainer Sessions for MEDSIS Liaisons and other key epidemiology staff, resulting in certification of trainers.
 - 5.1.2. *Certified MEDSIS Trainers*: Certified MEDSIS Trainers (MEDSIS Liaisons and other key epidemiology staff that have been certified by ADHS) shall provide MEDSIS Training sessions for MEDSIS users within their jurisdiction.
- 5.2. Conditions requiring a MEDSIS Training
 - 5.2.1. *Initial MEDSIS Training*: Prior to being granted access to the MEDSIS Production site, users shall be required to attend an Initial MEDSIS Training. The Initial MEDSIS training is a user's first training, resulting in access to the MEDSIS Production site.
 - 5.2.2. *Future MEDSIS Trainings*: MEDSIS Trainings shall be required in the future as significant changes are made to the MEDSIS workflow and/or MEDSIS functionality, that the ADHS MEDSIS Team identifies as complex enough to require training.

- 5.2.2.1. Types of Training Sessions
 - 5.2.2.1.1. Train-the-Trainer: Sessions provided by the ADHS MEDSIS Team to the MEDSIS Liaisons and key epidemiology staff in web-cast and/or in-person hands-on training formats
 - 5.2.2.1.2. Local Training: Sessions provided by the Certified MEDSIS Trainers to users within their jurisdiction
 - 5.2.2.1.2.1. ADHS Required Trainings: Certified MEDSIS Trainers shall provide training to users within their jurisdiction on items that the ADHS MEDSIS Team has identified as complex enough to require training, once the Certified MEDSIS Trainers have attended a Train-the-Trainer session on the new workflow and/or functionality.
 - 5.2.2.1.2.2. Additional Local Training: Certified MEDSIS Trainers may require additional training for users within their jurisdiction beyond ADHS Required Trainings.
- 5.3. MEDSIS Implementation Trainings
 - 5.3.1. ADHS MEDSIS Implementation-Related Trainings:
 - 5.3.1.1. MEDSIS Train-the-Trainer Sessions: Prior to any County going "Live", MEDSIS Train-the-Trainer session(s) shall be held to train and certify the local MEDSIS Trainers (MEDSIS Liaisons and key epidemiology staff).
 - 5.3.2. Local MEDSIS Implementation-Related Trainings: For each County going "Live", each prospective user within the County shall attend an Initial MEDSIS Training provided by the Certified MEDSIS Trainer(s) prior to being granted access to the MEDSIS Production Site.
- 5.4. Certification: Certification of Users and Trainers shall be required to ensure a uniform level of baseline proficiency in use of MEDSIS and in training others to use MEDSIS.
 - 5.4.1. MEDSIS Trainer Certification:
 - 5.4.1.1. The ADHS MEDSIS Team shall provide MEDSIS Trainer certification for MEDSIS Liaisons and key epidemiology staff.
 - 5.4.1.2. MEDSIS Trainer Certification Exam
 - 5.4.1.2.1. The MEDSIS Trainer Certification Exam will test trainers on their ability to perform MEDSIS functions, perform MEDSIS processes, and respond to MEDSIS scenarios.
 - 5.4.1.2.2. Trainers shall aim to meet a 90% level of proficiency on the MEDSIS Trainer Certification Exam.

- 5.4.1.2.2.1. If MEDSIS Trainer applicant scores a 90% or above on the MEDSIS Trainer Certification Exam, the person will be a Certified MEDSIS Trainer.
 - 5.4.1.2.2.1.1. Person may be asked to review and/or redo specific items that were missed on the MEDSIS Trainer Certification Exam (on an asneeded basis) prior to receiving "Certified" status.
- 5.4.1.2.2.2. If MEDSIS Trainer applicant scores 80%-90% on the MEDSIS Trainer Certification Exam, the person will receive "Certified" status *only* if person is able to redo missed items when given a second try.
 - 5.4.1.2.2.2.1. Items must be correctly redone prior to receiving "Certified" status.
 - 5.4.1.2.2.2.1.1. If person is not able to redo missed items correctly after being given a second try, they are eligible to receive MEDSIS User Training, and take the MEDSIS User Certification Exam that is distributed by the MEDSIS Trainers within that County (refer to policy 5.4.2).
 - 5.4.1.2.2.2.1.1.1. Upon becoming a Certified MEDSIS *User* within their jurisdiction, they are eligible to re-take the MEDSIS *Trainer* Certification Exam. (5.4.1.2.2.1 5.4.1.2.2.2)
 - 5.4.1.2.2.2.1.1.2. If the MEDSIS Trainer applicant is unable to score at or above an 80% on the MEDSIS Trainer Certification Exam on the second attempt, they will be asked to participate in the next train-the-trainer session, which will be no longer than six months after the person's first attempt. At that time, the person will also be asked to re-take the Certification Exam.
- 5.4.1.2.2.3. If MEDSIS Trainer applicant scores below 80% on the MEDSIS Trainer Certification Exam, user is still eligible to receive MEDSIS User Training, and take the MEDSIS User Certification Exam that is distributed by the MEDSIS Trainers within that County.
 - 5.4.1.2.2.3.1. Upon becoming a Certified MEDSIS User within their jurisdiction, they are eligible to re-take the MEDSIS *Trainer* Certification Exam.
 (5.4.1.2.2.1 5.4.1.2.2.2)
 - 5.4.1.2.2.3.1.1. If the MEDSIS Trainer applicant is unable to score at or above an 80% on the MEDSIS Trainer Certification Exam on the second attempt, they will be asked to participate in the next train-the-trainer session, which will be no longer than six

months after the person's first attempt. At that time, the person will also be asked to re-take the Certification Exam.

- 5.4.1.2.3. MEDSIS Trainers shall be certified prior to providing training session for MEDSIS users within their jurisdiction.
- 5.4.2. MEDSIS User Certification
 - 5.4.2.1. Certified MEDSIS Trainers shall be responsible for creating a certification process for users within their jurisdiction.
 - 5.4.2.2. Users at each jurisdiction shall be certified prior to gaining access to the MEDSIS Production site.
- 5.4.3. Additional Certification: Additional Certification shall be required in the future as significant changes are made to the MEDSIS workflow and/or MEDSIS functionality.
 - 5.4.3.1. The need for additional certification will be dependent upon the criticality of the function, expertise required to perform the function, and/or the potential effect on data quality.

6. Non-Public Health Users (Approved 4/20/2006 MEDSIS PWG)

- 6.1. *Definition*: The term Non-Public Health (NPH) User refers to an individual not affiliated with a health department who uses MEDSIS to report cases of communicable disease to public health.
- 6.2. *Recruitment*. Local Health Departments shall be responsible for recruiting individuals within their jurisdiction to report communicable diseases using MEDSIS.
 - 6.2.1. ADHS Role: ADHS staff shall/may prepare template recruitment materials that Local Health Departments may use and/or adapt for recruiting NPH users with their jurisdiction. ADHS staff shall be available on an as-needed* basis for assistance with recruitment.
- 6.3. *Training*: Certified MEDSIS Trainers, who have participated in an ADHS-sponsored "Train-the-Trainer web-cast for Reporters" shall be responsible for training the NPH users within their jurisdiction.
 - 6.3.1. *ADHS Role*: ADHS staff shall prepare template training materials that Certified MEDSIS Trainers may use and/or adapt for training NPH users. ADHS staff shall be available on an as-needed* basis for assistance with trainings.
- 9. <u>Release of Data (Approved 6/20/2005 MEDSIS PWG)</u>
 - 9.1.1. Each County may release data for cases for which they are the Counting County in accordance with their own County's policies, in accordance with HIPAA and IRB processes.
 - 9.1.2. ADHS may release data for which any of Arizona's fifteen counties are the Counting County in accordance with ADHS policies and protocols, and HIPAA and IRB processes. ADHS will notify the Counting County prior to County-specific data being released.

10. Data Definitions

- 10.1. Users of MEDSIS agree to the meaning of the following Key Fields (Approved 6/20/2005 MEDSIS PWG)
 - 10.1.1. Event Date: "Earliest date of Onset Date, Date Collected, Date Finaled, Diagnosis Date, Date Reported to County, or Date Entered into MEDSIS", as defined below:
 - 10.1.1.1. Onset Date: "Date of symptom onset"
 - 10.1.1.2. Date Collected: "Date specimen was collected for laboratory testing"
 - 10.1.1.3. Date Finaled: "Date of final laboratory test results for a given specimen"
 - 10.1.1.4. Diagnosis Date: "Date reportable condition was diagnosed by a health care worker"
 - 10.1.1.5. Date Reported to County: "Date County was notified of case"
 - 10.1.1.6. Date Entered into MEDSIS: "Date record was entered into MEDSIS"
 - 10.1.2. (Case) Classification
 - 10.1.2.1. Confirmed: "Meets the disease-specific definition of a confirmed case"
 - 10.1.2.2. Probable: "Meets the disease-specific definition of a probable case"
 - 10.1.2.3. Suspect: "An open case that has not yet met the criteria for final classification"
 - 10.1.2.4. Not a Case: "After investigation does not meet the case definition for confirmed or probable".
 - 10.1.3. Imported (Disease Imported)
 - 10.1.3.1. In County: "Condition acquired within Counting County"
 - 10.1.3.2. Out of County: "Condition acquired within Arizona, outside of Counting County"
 - 10.1.3.3. In State: "Condition acquired within Arizona, county unknown"
 - 10.1.3.4. Out of State: "Condition acquired within U.S.A, outside of Arizona"
 - 10.1.3.5. International: "Condition acquired outside U.S.A."
 - 10.1.3.6. Unknown: "Location of condition acquisition is unknown or indeterminable".
 - 10.1.4. Investigation Status
 - 10.1.4.1. New: "Newly received, investigation not yet initiated"
 - 10.1.4.2. Active: "Investigation ongoing"
 - 10.1.4.3. Completed: "Investigation complete, closed"
 - 10.1.4.4. Lost to Follow-Up: "Investigation incomplete, closed"
 - 10.1.4.5. Completed State Reviewed: "Investigation complete, closed, reviewed by ADHS"
- 10.2. Provision of Data Dictionary/Glossary (Approved8/11/2005 MEDSIS PWG)
 - 10.2.1. The ADHS MEDSIS Team shall provide a data dictionary/glossary to MEDSIS users by the time the first County has been Certified as a MEDSIS Jurisdiction.
 - 10.2.2. The Data Dictionary/Glossary shall contain the following information for each data element:

- 10.2.2.1. Field Label
- 10.2.2.2. Definition
- 10.2.2.3. Field format (Free-text, Checkbox, Drop-down, Masked text, etc.)
 - 10.2.2.3.1. If drop-down what are drop-down values and their meanings
 - 10.2.2.3.2. If drop-down what is default value
 - 10.2.2.3.3. If masked, what format (Date, Phone, Zip, etc.)
- 10.2.2.4. Entered/Auto-generated/Calculated
- 10.2.2.5. Appear on screen (Y, N)
 - 10.2.2.5.1. If Y, what role(s) have access
 - 10.2.2.5.2. If Y, what screen
- 10.2.2.6. Extractable (Y, N)
 - 10.2.2.6.1. If Y, then QCODE
- 12. <u>Anticipated Changes to the System</u> (e.g. releases, upgrades) (Approved 8/11/2005 MEDSIS PWG) 12.1. Deployment of Releases and Application Updates Protocol:
 - 12.1.1. MEDSIS Training Site: All changes to MEDSIS that would lead to a significant change in workflow or functionality within the application shall first be deployed to the MEDSIS Training Site for users to become familiar with new or changed features. Training may be required at this point (Policy 5.2.2).
 - 12.1.2. MEDSIS Production Site: After a specified period of time (dependent on the complexity of the new/changed functionality and/or workflow and/or the need for training), changes shall be migrated to the MEDSIS Production Site.
 - 12.1.3. Notification Regarding Anticipated Changes to the System: As soon as the first County initiates training users on the MEDSIS Training Site, the ADHS MEDSIS Team shall notify all MEDSIS Trainers prior to deployment of changes to the MEDSIS Training and/or Production Sites via email.
 - 12.1.3.1. (Approved 1/20/2006) The MEDSIS Team shall post information regarding application updates to the Announcements section of the MEDSIS Portal Area on the Public Health Preparedness Portal.

16. Interim Policies Regarding Laboratory Data (Approved 7/26/2005 MEDSIS PWG)

Paper labs and the ARUP transmission that are reported directly to ADHS as per A.A.C. will continue to be sorted and prioritized as usual. For IDES and VBZD diseases, ADHS will enter paper lab reports and lab data from ARUP into the Electronic Lab Reporting (ELR) module of MEDSIS, for counties that are "Live".

Timeliness: Lab reports of 24-hour and one day reportable conditions shall be entered within one working day of receipt, while lab reports of 5 day reportable conditions shall be entered within three working days of receipt.

For IDES and VBZD diseases, ALL counties will be responsible for using ELR to retrieve lab data received electronically regardless of whether the county is actively using MEDSIS-CMR for surveillance.

17. Interim Policies Regarding Infection Control Practitioner (ICP) Reporting through MEDSIS (Approved 7/31/06 MEDSIS PWG)

ICPs participating in conjunction with County and ADHS may report all diseases but Hepatitis C, STD's, HIV, TB & Arboviruses using MEDSIS-CMR in all counties, regardless of whether County public health is actively using MEDSIS-CMR for disease surveillance. If ICPs in a county *are* reporting through MEDSIS, users at the county are responsible for reviewing MEDSIS on a daily basis to retrieve cases reported by ICPs. In "Not Live" counties, a user with an EPI role is responsible for submitting the case to ADHS upon receipt of case to indicate County has received notification of case. ICP may report through MEDSIS but will be recommended to notify County via telephone for a 24-hour and one day reportable conditions.
Priorities of Reportables for Timeliness of Entry of Updates				
Priority 1	Priority 2	Priority 3		
Anthrax	Amebiasis	Basidiobolomycosis		
Botulism	Aseptic meningitis: viral	Coccidioidomycosis (Valley Fever)		
Brucellosis	Campylobacteriosis	Conjunctivitis: acute		
Cholera	Colorado tick fever	Creutzfeldt-Jakob disease		
Diphtheria	Cryptosporidiosis	Kawasaki syndrome		
Emerging or exotic disease	Cyclospora infection	Scabies		
Enterohemorrhagic Escherichia coli	Cysticercosis	Vancomycin-resistant Enterococcus spp.		
Enterotoxigenic Escherichia coli	Dengue	hospitalized varicella cases		
Hemolytic uremic syndrome	Diarrhea, nausea, or vomiting			
Listeriosis	Ehrlichiosis			
Measles (rubeola)	Encephalitis, viral or parasitic			
Meningococcal invasive disease	Giardiasis			
Mumps	Haemophilus influenzae: invasive disease			
Pertussis (whooping cough)	Hansen's disease (Leprosy)			
Plague	Hantavirus infection			
Poliomyelitis	Hepatitis A			
Q fever	Hepatitis B and D			
Rabies in a human	Hepatitis E			
Rubella (German measles)	Herpes genitalis			
Rubella syndrome, congenital	Legionellosis (Legionnaires' disease)			
Severe acute respiratory syndrome	Leptospirosis			
Smallpox	Lyme disease			
Tularemia	Lymphocytic choriomeningitis			
Typhoid fever	Malaria			
Typhus fever	Psittacosis (ornithosis)			
Unexplained death with a history of fever	Relapsing fever (borreliosis)			
Vancomycin-resistant or Vancomycin-intermediately susceptible Staphylococcus aureus	Reye syndrome			
Vancomycin-resistant Staphylococcus epidermidis	Rocky Mountain spotted fever			
Viral hemorrhagic fever	Salmonellosis			
West Nile virus infection	Shigellosis			
Yellow fever	Streptococcal Group A: Invasive disease			
Varicella (chickenpox): hospitalized varicella cases	Streptococcal Group B: Invasive disease in infants younger than 90 days of age			
	Streptococcus pneumoniae (pneumococcal invasive disease)			
	Taeniasis			
	Tetanus			
	Toxic shock syndrome			
	Trichinosis			
	Vibrio, non-Cholera			
	Yersiniosis			

Appendix 1: (Approved 6/20/2005 MEDSIS PWG)

 * Does not include lab-only reportable conditions: Flu, MRSA, or RSV

Appendix 2:

Dispute Resolution Process (Approved 6/20/2005 MEDSIS PWG)

This applies most particularly to a change in classification or morbidity, but could apply to any data element.

1. When ADHS encounters a case which they would like to change (either before or after it is submitted), ADHS contacts the designated contact person at the County. ADHS and the county contact discuss the case and see if they can come to consensus on the data element(s) in question.

Note: This will be cumbersome at first, but the idea is the more we discuss individual cases with each other, the more we will develop consistent interpretations of case definitions.

- 2. If Step 1 does not result in resolution, the decision will be escalated to the Epi Supervisor at the County and at ADHS.
- 3. If consensus can still not be reached, the discrepancy goes to a small advisory group (perhaps an existing body formed for a MEDSIS function) made up of staff from counties and ADHS. It should be peopled with case definition experts.

*For the sake of practicality, the group would <u>not</u> be called together every time there is an appeal. Rather, appeals would be "batched" for the next advisory group meeting. Also for the sake of practicality, this group may "meet" via email or over the phone. Also, there may be several changes pending that can be discussed at the same time because they involve similar issues. We could experiment with ways of doing this most expeditiously.

As was mentioned earlier, the work of the advisory group would reduce consistently over time as we come to agreements about how to interpret various case definitions.

MEDSIS Procedure: Reporting MEDSIS Feedback

<u>Purpose</u>: To describe the process by which stakeholders shall report feedback regarding the MEDSIS application, how that feedback shall be processed by the MEDSIS Project Team and reported back to stakeholders.

MEDSIS feedback shall be managed by stakeholder submission of identified desired changes to the application. These changes include the reporting of bugs (application not functioning properly), and the requesting of enhancements (changes to the existing application) and new functionality (additional functionality).

The MEDSIS Liaison or designated back-up (ML) shall post a Change Request (CR) to the MEDSIS Issues List on the Public Health Preparedness Portal (PHPP). A CR provides a summary of the issue, including the functionality or workflow that may be impacted by the requested change. The MEDSIS Project Team will review each CR, and may request from the ML additional information or clarification regarding the issue. The MEDSIS Project Team will categorize each CR as one of the following:

- <u>Bug Fix</u>: A request to resolve an issue that arises from the application not working as it is designed to.
- □ <u>Enhancement</u>: A request to change the existing functionality and/or workflow of the application. An enhancement may range in *scope* from changing the label of a field to a change in workflow.
- <u>New Functionality</u>: A request to add new functionality to the system. New functionality may range in *scope* from implementation of a new business rule to generation of a new workflow.

How a CR is processed by the MEDSIS Project Team depends on both what category (as listed above) it falls into and the scope of the CR. Upon approval by the Change Management Board and/or the MEDSIS Steering Committee, the timeframe for resolution to an issue will depend on the resources necessary to make the change within the application as well as the priority of the issue in relation to other ongoing development.

Bug Fix CR:

Once a reported issue has been categorized as a Bug Fix, the MEDSIS Project Team will verify the existence of the bug and disposition the CR to the contractor's issues log. The MEDSIS Issues List will be updated with information regarding the verification and disposition of issue. Once the solution to the issue is released to the MEDSIS Lab Environment, the MEDSIS Project Team will test the Bug Fix. Once approved by the MEDSIS Project Team, the Bug Fix will be migrated to the MEDSIS Training Site for testing and approval by the ML submitting the CR. The ML will update the CR in the MEDSIS Issues List either as approved and will *close* the issue, or as failed and will keep the issue open, updating it with relevant testing information.

Enhancements and New Functionality CR:

The MEDSIS Project Team will evaluate CR categorized as Enhancement and New Functionality based on feasibility, scope, impact, cost, and availability of alternative solutions, in order to classify the issue's scope as Minor, Medium, or Major.

<u>Minor Enhancement/New Functionality</u>: The MEDSIS Project Team will review the CR and evaluate the request on scope, resources, impact, cost, and availability of alternative solutions to develop a recommendation. The CR and recommendation is submitted directly to the Change Management Board (NEED TO IDENTIFY WHO) for approval. If request is approved, the MEDSIS Project Team shall disposition the CR to the

contractor's issues log. Once the solution to the issue is released to the MEDSIS Lab Environment, the MEDSIS Project Team will test and approve the Enhancement/New Functionality. Upon approval, the Enhancement/New Functionality will be migrated to the MEDSIS Training Site for testing and approval by the ML submitting the CR. The ML will update the CR in the MEDSIS Issues List either as approved and will *close* the issue, or as failed and will keep the issue open, updating it with relevant testing information.

<u>Medium Enhancement/New Functionality</u>: The ML that submitted the CR will be requested to complete a Change Request Form and attach it to the CR in the MEDSIS Issues List. A Change Request Form contains a more formalized, detailed description of the requested change and the potential impact of its implementation. Upon completion of the Change Request Form, the MEDSIS Project Team will review the Change Request Form and evaluate the request on scope, resources, impact, cost, and availability of alternative solutions to develop a recommendation. The recommendation will be submitted to the Change Management Board for review and approval. If the Change Management Board disagrees with the MEDSIS Project Team's recommendation, the issue will be presented to the MEDSIS Steering Committee for final approval or denial. The CR in the MEDSIS Issues List shall be updated throughout this process to provide feedback to stakeholders.

<u>Major Enhancement/New Functionality</u>: The ML that submitted the CR will be requested to complete a Change Request Form and attach it to the CR in the MEDSIS Issues List. A Change Request Form contains a more formalized, detailed description of the requested change and the potential impact of its implementation. Upon completion of the Change Request Form, the MEDSIS Project Team in conjunction with the MEDSIS Steering Committee will review the Change Request Form and evaluate the request on scope, resources, impact, cost, and availability of alternative solutions to develop a recommendation. The recommendation will be submitted to the Change Management Board for review and approval. If the Change Management Board disagrees with the MEDSIS Project Team's recommendation, the issue will be presented to the MEDSIS Steering Committee for final approval or denial. The CR in the MEDSIS Issues List shall be updated throughout this process to provide feedback to stakeholders.

MEDSIS Procedure: De-duplication and Merging of Public Health Cases

Purpose: To guide users in the process of de-duplicating and merging PHC records.

Duplication of records is problematic in multi-user applications, such as MEDSIS. To ensure that accurate disease counts for surveillance and reporting are maintained within each jurisdiction and state-wide, it is necessary to de-duplicate PHC records within MEDSIS.

It is recommended that each jurisdiction designate specified users with an Epidemiologist role to perform the regular, periodic de-duplication and merging of PHC records within that jurisdiction.

With the functionality that is currently available in MEDSIS, in order to de-duplicate PHCs, a user must review data from *both* the PHC record and the person record to which it is attached. This can be achieved by reviewing reports and data extracts, in addition to the case list -- all display both person and case data.

The first step in de-duplication is to *identify* potential duplicates. Potential duplicates may be identified by various matches on the following data elements: Last Name, First Name, Date of Birth, and Morbidity. For example, a user may first choose to look for duplicates on records with the same or similar First and Last Names, Date of Birth, and Morbidity, then may choose to identify duplicates using less stringent criteria (for example only Last Name, Date of Birth, and Morbidity). De-duplication of records does require user judgment and should not be an automated process.

Once potential duplicates are identified, additional data from each record should be *examined* to determine if they are true duplicates. In addition to the First Name, Last Name, and Date of Birth, additional data about the person including: Address, City, Phone Number(s), Middle Name, and Age (especially if Date of Birth is missing) should be examined. In addition to the Morbidity, additional data about the PHC including: Dates contributing to the Event Date (e.g. Onset Date, Diagnosis Date, Collection Date) and Reporting Facility. Please keep in mind that the epidemiology of different morbidities will help determine if records with different Event Dates (or dates contributing to the Event Date) represent a recurrence of the same event or a reinfection with the same organism. [Recurrences shall be merged and de-duplicated, while reinfections should be retained as separate records (e.g. each infection is counted once).]

Once two (or more) records have been confirmed as duplicative, the data within the records shall be *merged*, by updating one record with the appropriate data from the duplicative record(s). The information for the merged record may be selected from more than one duplicative record. Users are encouraged to select the record that is the most complete and/or correct to update*. When selecting information to retain in a given field, consider the following:

- □ Keep the data considered more accurate or more complete
- For PHC addresses, the address that shall be used for counting and mapping shall be input in the address fields, while additional relevant addresses shall be maintained in the notes box
- □ For dates related to the PHC, the earliest date should be kept for each field.
- User should ensure that merging information from separate cases maintains the logic of the case record
- Changing data on the Patient tab of a given PHC will be reflected on the Patient tab of any other PHCs associated with that person

Once all of the relevant case and patient data has been updated into one record, the duplicate(s) should be deleted.

MEDSIS Procedure: Requesting and Obtaining MEDSIS Access

<u>Purpose</u>: To guide users in the process of requesting and obtaining access to MEDSIS

<u>Assumptions</u>: User has already been granted access to SIREN. SIREN access is necessary for all MEDSIS Users. Please contact your SIREN Liaison for requesting SIREN access.

Access to MEDSIS Training Site

D MEDSIS Liaison submits via SIREN e-mail to the MEDSIS Help Desk

a request for a user within their jurisdiction to be granted access. The request contains the following information:

- o County:
- User Name:
- o Business Need: Disease investigation and surveillance, Disease Reporting
- o **Rights**:
 - For EPI role:
 - For DE role:
- MEDSIS Team forwards request to Electronic Surveillance Program Section Chief or designated back-up for approval
- If approved, Electronic Surveillance Program Section Chief or designated back-up forwards the approved request to the SIRENHelpDesk for processing
- User is notified upon addition of user to MEDSIS Training

Access to MEDSIS Production Site

- User has been certified by their Certified MEDSIS Trainer as a MEDSIS User
- User has signed, faxed, and mailed the original copy of the Arizona Department of Health Services MEDSIS Confidentiality Agreement Form to MEDSIS Team
- D MEDSIS Liaison submits via SIREN e-mail to the MEDSIS Help Desk

a request for a user within their jurisdiction to be granted access. The request contains the following information:

Country

- County:
- User Name:
- o Business Need: Disease investigation and surveillance, Disease Reporting
- Rights:
 - For EPI role:
 - For DE role:
- MEDSIS Team forwards request to Electronic Surveillance Program Section Chief or designated back-up for approval
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- User is notified upon addition of user to MEDSIS Production

PIMA COUNTY HEALTH DEPARTMENT

Disease Event Support Functions



CORE DOCUMENT AS OF June 2010

Comments on this Plan should be forwarded to:

Epidemiology Program Pima County Health Department

Email:

Record of Plan Revision

PLAN NAME: Disease Event Support Functions						
DATE OF REV	ISION	NAME OF EDITOR	NOTES			
 June 2010 . 			PPHR Revisions			

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Introduction and Overview

I. Purpose

The purpose of this appendix is to identify Epidemiological emergency support functions in the event of an emergency or threat of an emergency including but not limited to an event of public health significance (i.e. intentional, such as a bioterrorism event) or disease outbreak (i.e. naturally occurring, such as a disease specific pandemic),. The Epidemiology Program must be able to continue essential functions within 12 hours and be capable of sustaining essential support functions for up to 30 days.

II. Scope of Operations

The Epidemiology Program has primary responsibility for coordination and implementation of disease surveillance, investigations, and prevention of secondary transmission within Pima County, and conducts these activities under both mandated local and state authority.

The Epidemiology Program consists of the Epidemiology Program Manager, a Surveillance Epidemiologist, a Data Management Epidemiologist, a Community Health Epidemiologist, a Preparedness Epidemiologist, and three Communicable Disease Investigators.

Information provided to the public in response to infectious disease conditions/outbreaks of public health significance reflects the principles of risk communications. This plan is refined and improved through lessons learned in crisis events and pertinent preparedness exercises.

This appendix will be reviewed annually by the Epidemiology Program Manager and updated as needed.

Support Functions

Priority	Support Function		
1	Communicable disease surveillance		
2	Communicable disease investigations		
3	Data analysis		
4	Planning & implementation of disease containment		
5	Disease health alert information collection and dissemination		
*Note: Activation and prioritization of these support functions will be determined by the			
Epidemiology Program Manager, Chief Medical Officer, and Incident Commander as required by			
the event.*			
Note: Activation and prioritization of these support functions will be determined by the Epidemiology Program Manager, Chief Medical Officer, and Incident Commander as required by the event.			

a. Priority One-Communicable disease surveillance

The primary level of public health surveillance in Pima County is based on a passive disease reporting system. Reports are sent via electronic reporting system, fax or mail. In accordance with <u>Arizona</u> <u>Administrative Code (AAC) R9-6-202 and 203</u>, a health care provider, an administrator of a health care facility or correctional facility, an administrator of a school, child care establishment, or shelter, or their authorized representatives shall submit a communicable disease report (CDR) to the local health agency.

Enhanced surveillance is enacted during events of prospective public health significance or outbreaks. The purpose of active surveillance activities is to promote prompt receipt of disease notifications to determine increases in gastrointestinal, respiratory or rash illness occurring during the time period specified for each event.

Enhanced disease surveillance sources accessed by the Epidemiology Program include:

- 1. Sentinel Sites
- 2. School-based Surveillance
 - a. Influenza and Varicella Surveillance
 - b. Absenteeism Surveillance
- 3. Syndromic Surveillance
- 4. Veterinary Surveillance
- 5. Hospital Surveillance
- 6. Mortality Surveillance
- 7. Unexplained Death Surveillance (UNEX)

b. Priority Two-Communicable disease investigations

The Medical Electronic Disease Surveillance and Intelligence System (MEDSIS) is the data system used to manage the information gathered in this reporting system. MEDSIS is a statewide webbased surveillance database hosted and supported by the Arizona Department of Health Services (ADHS) and is designed according to CDC standards and data models. It meets the federal requirements of the <u>Public Health Information Network (PHIN) functions and specifications</u> and is <u>HIPAA</u> compliant

The State of Arizona has established the list of reportable diseases and conditions, designated who is required to report said information, defined the method(s) and timeliness of these reports, and the responsibilities of the receiving health department. In Arizona, a total of 89 conditions are reportable to the local county health department.

The following outlines the management of reportable conditions during an event of public health significance that would demand staff resources beyond the capacity to sustain normal epidemiology activities

Communicable Disease Investigations Priority 1:

- 24 hour and one day reportable conditions: Certain diseases require timely notification to the state health authority, Arizona Department of Health Services (ADHS), within 24 hours or one working day of receipt at PCHD. Diseases designated as 24 hour or one day reportable conditions shall be entered into MEDSIS within one working day of receipt of initial case information. Notification of Chief Medical Officer or designee and Epidemiology Program Manager or designee must occur within 15 minutes of receiving report. A disease investigation will be performed as prescribed by the State of Arizona.
- *Outbreaks*: Disease Outbreaks require immediate response by designated Epidemiologist. Epidemiology Program Manager or designee will assign outbreak investigation to an Epidemiologist. Notification of Chief Medical Officer or designee and Epidemiology Program Manager or designee must occur within 15 minutes of receiving report.

Communicable Disease Investigations Priority 2:

- 5 day reportable conditions: Diseases designated as reportable within 5 working days to ADHS shall be entered into MEDSIS within three working days of receipt of initial case information. During an event of public health significance only diseases in which exclusion from health care setting, food establishment, school or day care is required to prevent likely disease transmission will be investigated.
- All disease investigations will be completed and submitted to ADHS via MEDSIS within 30 days of receipt of initial case information. Date reported to state will be used to calculate 30

days until case submission. During an event of public health significance an extension up to 90 days for case completion and submission may be requested from ADHS.

An integral part of the investigation process is the collection and testing of specimens, both during routine investigations as mandated by Arizona Revised Statute 36-136 and during disease outbreak circumstances. The Epidemiology Program's role in the laboratory framework is to obtain and coordinate shipment of biological samples (i.e. stool, vomit, blood, urine, CSF) to Arizona State Laboratory.

In accordance with <u>Arizona Administrative Code (AAC) R9-6-204 and 205</u>, clinical laboratory directors or their representatives shall submit laboratory reports to the state health department. Pharmacists and administrators of pharmacies shall submit reports to the state health department. Violation of reporting rules is a class III misdemeanor and is subject to referral to the facility's licensing agency or provider's state licensing board.

c. Priority Three- Health information data analysis

The Epidemiology Program collects and analyzes health information daily during an event of public health significance.

In the event of a special event or outbreak, the Epidemiology Program develops a protocol of the surveillance data to be used specific to that event including:

- The data sources to be used
- How the data are obtained
- How frequently the data are collected
- The pertinent information to be examined from the data
- How frequently the data are to be evaluated
- A format to present the results
- How frequently and to whom the results are presented

d. Priority Four- Planning & implementation of disease containment

Required control measures are prescribed in the Administrative Code and by the Pima County Disease Control Protocols. Examples include rabies risk assessment and recommendations for post-exposure prophylaxis, recommendations for infection control in a health care setting, exclusion from work or school, accelerated immunization schedules, and recommendations for disease testing, prophylaxis, and or treatment of exposed individuals. These measures might also call for implementing and monitoring isolation recommendations and community based quarantine. These functions are carried out in conjunction with the Chief Medical Officer, the Vaccine Preventable Disease Program, and Public Health Nursing. Other Department partners in these activities include Pima Animal Care Center and Consumer Health and Food Safety.

e. Priority Five- Disease health alert information collection and dissemination

Epidemiologists are the main point of contact for communicable disease related health alerts. Alerts may be generated by the Arizona Department of Health Services, the Centers for Disease Control and Prevention, and other county and tribal health departments. It is essential that epidemiologists maintain communication capabilities in order to stay current regarding any emerging health threats. Disease case definitions, laboratory testing requirements, disease investigation protocols, and recommendations for case control measures are among the information types that are received. The Epidemiology Program is responsible for the dissemination of health alerts to stakeholders such as hospitals, urgent care centers and clinicians. The Epidemiology Program will follow the PCHD Surveillance Communications Plan (included as Attachment A of this Appendix) to identify format and frequency of health alerts during the event. During an event, the Epidemiology Program will rely on the Chief Medical Officer for clinical and infection control guidance.

Attachments

PCHD-Surveillance Communications Plan

I. Purpose

The purpose of this plan is to identify planned communications and methods to address exchange of external information during routine disease surveillance and/or an event of public health significance or outbreak.

Planned communications include but are not limited to:

- Enhanced Surveillance Notices
- Monthly Surveillance Reports
- Special Communications

This document will be reviewed annually by the Epidemiology Program Manager and updated as needed.

II. Plan

This document facilitates centralized communications between all identified stakeholders and addresses need for standardizing communications to convey disease surveillance information.

The following types of stakeholders have been identified as recipients of planned communications:

- Schools and Day Cares
- University and Colleges
- Homeless Shelters
- Mental Health Facilities
- Social Service Organizations
- Infection Control Practitioners (ICP)
- Hospital Emergency Departments
- Hospital Pharmacies
- Hospital Laboratories
- Urgent Care Centers
- Clinicians
- Government and Tribes
- Corrections
- Military

Notices and reports convey disease surveillance and statistical information. The monthly surveillance report will convey de-identified disease surveillance information and will reflect prior month's data.

The following types of information will be communicated during routine disease surveillance and/or an event of public health significance or outbreak:

- Notification of national event of public health significance.
 - Only PCHD or ADHS or CDC information will be submitted to identified stakeholders.
 - If using CDC Epi-X information, information **must** be labeled
 - "Release outside of Epi-X as needed or Distribute on a need-to-know basis" for submittal to identified stakeholders. No other information may be submitted.
 - ProMed information may be not be used for routine disease surveillance and/or an event of public health significance or outbreak unless sources listed above are not available. ProMED is not a reliable source of health information but rather a compilation of news media reports.
 - If using ProMED, **always** include ProMed released statement addressing the validity of the information; "ProMED-mail makes every effort to verify the reports that are posted, but **the accuracy and completeness of the information**, **and of any statements or opinions based thereon**, **are not guaranteed**..."
- Notification of local event of public health significance.
 - Notification of local event requires a separate email or facsimile letter to include clinical guidance.
- Clinical guidance to address desired stakeholder action during identified event. For example, two or more cases of Meningococcal Invasive disease have been identified in school age children. Hospital ED will be notified of event and provided with clinical guidance to identify suspect cases including signs and symptoms of illness as well as prevention guidance to address need for prophylaxis for those involved in caring for case patients.
 - Clinical guidance **must** be approved by CMO prior to submittal of information.
- Infection control guidance to include information and instructions on how to minimize risk of infection in question.
 - Infection control guidance **must** be approved by CMO prior to submittal of information.
- Statistical data.

The Communications Matrix has been created to match stakeholders with the appropriate type of information as well as frequency of distribution and format.

The matrix serves as the foundation for identifying what, when, how and by who is information shared with identified stakeholders. All planned communications will be managed using communications matrix. An Excel spreadsheet may be used to maintain and manage communications information.

Sample Communications Matrix:

Italicized items are provided for example only. Modify content of the columns to meet specific needs.

				Audiences		
What	When	How	Responsible	Stakeholder	СМО	Program Manager
H1N1 Infection Control Guidelines Released by CDC on Monday, July 20, 2009	Distribute on Tuesday, July 21, 2009	Email	Surveillance Epi	ICPs	Reviewed/Approved (Date)	Reviewed/Approved (Date)

What; information to be communicated.

When; indicate when the information should be generated and or updates distributed:

- Enhanced Surveillance Notice will be distributed once per week. During an event of public health significance or outbreak, information must be generated within one
- **business day and distributed within one business day.** Updates may be distributed as needed during the event.
- Monthly Surveillance Report will be distributed once per month. The report will be distributed no later than the first Friday of every month.
- **Special Communications as directed.** For example, during a recent response to an event of public health significance; Novel H1N1 Influenza A, a daily surveillance report was generated. As response to novel influenza evolved, dissemination of surveillance report changed to weekly.

How; indicate the form the communication will take (i.e. facsimile letter (blast fax), email). For contact information, email or RightFax, of stakeholders visit:

Responsible; indicate the name of the person or designee responsible for producing and/or delivering the communication.

Audiences; add more columns as needed with names of persons, entities or groups impacted by the communication plan. In their respective columns, indicate an appropriate level of involvement for that person.

Common areas of involvement include:

• Person(s) who **consult** with the communication lead to produce the communication.

- Person(s) who have **input** on the communication and whose comments will result in changes to the communication before release.
- Person(s) who **approve** or **review** the communication and who have review or approval authority in the communication's content, dissemination or distribution. Approvers and/or reviewers include but are not limited to Epidemiology Program Manager, Chief Medical Officer or designee and Health Department Director or designee.
 - Enhanced Surveillance Notice may be reviewed and approved by Epidemiology Program Manager **unless**; clinical and/or infection control guidance is to be submitted. If clinical guidance is submitted, Chief Medical Officer **must** review and approve all guidance.
 - Monthly Surveillance Report may be reviewed and approved by Epidemiology Program Manager. Chief Medical Officer or designee may review report.
 - Special Communications may be reviewed and approved by Epidemiology Program Manager and/or Chief Medical Officer or designee and/or Health Department Director or designee. If clinical and/or infection control guidance is submitted, Chief Medical Officer **must** review and approve all guidance. Special Communications are dependent upon event in question.

