
Montana Department of Public
Health & Human Services

**Pandemic
Influenza
Response
Plan**

Annex 4: Human Disease and Public Health
Emergency Plan

Draft
7/6/2005

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ACRONYMS

ACIP	Advisory Committee on Immunization Practices
CDC	Centers for Disease Control and Prevention
DES	Disaster and Emergency Services Division
DPHHS	Department of Public Health and Human Services
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
HAN	Health Alert Network
HIRMS	Health Information Resource Management System
IAG	Incident Advisory Group
ICS	Incident Command System
ILI	Influenza-like illness
JIC	Joint Information Center
LHJ	Local Health Jurisdiction
MTPHL	Montana Public Health Laboratory
NBHPP	National Bioterrorism Hospital Preparedness Program
NIMS	National Incident Management System
NREVSS	National Respiratory and Enteric Virus Surveillance System
PHSD	Public Health and Safety Division
PIO	Public Information Officer
PIPRC	Pandemic Influenza Preparedness & Response Committee
SNS	Strategic National Stockpile
VAERS	Vaccine Adverse Events Reporting System
WHO	World Health Organization

GLOSSARY

Characterization	Identification of the strain of an influenza virus
Endemic	A disease that is continually present in a community or region
Epidemic	The occurrence of a disease in a community or region clearly in excess of normal expectations
HAN	An Internet based program used to communicate health and emergency messages
IAG	Incident Advisory Group
ILI	The presence of fever $\geq 100^{\circ}$ F, with a cough or sore throat
JIC	A central location for involved agencies to coordinate public information activities and a forum for news media representatives to receive disaster or emergency information
Novel Virus	A virus rarely, or not previously known to infect humans
Pandemic	The occurrence of a disease in excess of normal expectations in extensive regions, countries and continents
SNS	A federal cache of medical supplies and equipment to be used in emergency and disaster situations
Subtype	Identification of influenza A viruses according to the Hemagglutinin (H) and neuraminidase (N) components of the virus, such as H1N1 or H3N2
Surveillance	The collection, analysis and dissemination of data
Syndromic	Based on clinical signs and symptoms

1. INTRODUCTION

Influenza viruses are unique in their ability to cause sudden illness among humans in all age groups on a global scale. The importance of influenza viruses as biologic threats is due to a number of factors including the high degree of transmissibility, the presence of a vast reservoir of novel variants (primarily aquatic birds), and the unusual properties of the viral genome. The infamous “Spanish flu” of 1918-19 was responsible for more than 20 million deaths worldwide, primarily among young adults. Mortality rates associated with recent pandemics of 1957 and 1968 were reduced in part by the use of antibiotic therapy for secondary bacterial infections and aggressive supportive care of infected patients. However, these later pandemics were associated with high rates of morbidity and social disruption. The Centers for Disease Control and Prevention (CDC) estimates the economic loss associated with the next pandemic will be in the billions of dollars.

Experts agree that an influenza pandemic is inevitable. To prepare for the next pandemic, the Montana Department of Public Health and Human Services (DPHHS) in cooperation with many state and local organizations and partners have developed this annex to provide strategies to reduce pandemic influenza-related morbidity, mortality, and social disruption in the state.

A. Influenza Background

Influenza is an illness caused by viruses that infect the respiratory tract in humans. Signs and symptoms of influenza infection include rapid onset of high fever, chills, sore throat, runny nose, severe headache, nonproductive cough, and intense body aches followed by extreme fatigue. Influenza is a highly contagious illness and can be spread easily from one person to another. It is spread through contact with droplets from the nose and throat of an infected person during coughing and sneezing. The period between exposure to the virus and the onset of illness is usually one to five days. Influenza is not an endemic disease, and in the Northern Hemisphere usually occurs in annual epidemics from December to April.

There are two types of influenza viruses which cause significant disease in humans: type A and type B. Influenza A viruses are composed of two major antigenic structures essential to the production of influenza vaccines and the induction of immunity: hemagglutinin (H) and neuraminidase (N). These two components define the virus subtype. Influenza A viruses are unique because they can infect both humans and animals and are usually associated with more severe illness than type B influenza viruses.

Influenza viruses mutate frequently resulting in an antigenic drift or a shift. Antigenic drift is a minor change caused by mutation that results in the emergence of a new strain within a subtype. Drifts can occur in both type A and B influenza viruses. Antigenic shift, associated with influenza pandemics, is a major change caused by genetic recombination that results in the emergence of a novel virus strain that has not previously infected humans. Antigenic shift occurs only in influenza type A viruses.

B. Pandemic Influenza

Pandemic influenza is a unique public health emergency. No one knows when the next influenza pandemic will occur. However, when it does occur it will be with little warning. Since the novel virus may be identified in any region of the world, experts believe that we will have between one to six months between the identification of a novel influenza virus and the time that widespread outbreaks begin to occur in the United States. Outbreaks are expected to occur simultaneously throughout much of the nation, preventing relocation of human and material resources. An influenza pandemic will likely occur in multiple waves. The effect of the initial wave on individual communities will be relatively prolonged (as long as six to eight weeks) when compared to the minutes-to-hours observed in most natural disasters. The next pandemic could have a devastating impact on the health and well being of the American public. Table 1 illustrates the maximum morbidity and mortality estimates of influenza pandemic, in the United States and Montana.

Table 1. Estimated maximum morbidity and mortality during an influenza pandemic, nationwide and in Montana. (Based on Flu-Aid 2.0 software, CDC)

	United States	Montana
Clinically ill	250 million	330,000
Require outpatient care	50 million	165,000
Hospitalizations	2 million	3,600
Deaths	500, 000	850

Effective preventive and therapeutic measures, including vaccines and antiviral agents, will likely be in short supply, as will some antibiotics to treat secondary bacterial infections. Healthcare workers and other first responders will likely be at higher risk of exposure to influenza than the general population, further impeding the care of patients. Widespread illness in the community may also increase the likelihood of sudden and potentially significant shortages of personnel who provide other essential community services. Following are relevant issues that provide a basis for preparedness activities pertaining to pandemic influenza:

1. An influenza pandemic is inevitable.
2. To some extent, everyone will be affected by the influenza pandemic.
3. The first wave of the pandemic may last from 1-3 months, while the entire pandemic may last for 2-3 years.
4. Liability protection for vaccine manufacturers and persons who administer influenza vaccine will likely be made available through congressional legislation.
5. Although antiviral agents are available that can theoretically be used for both treatment and prophylaxis during the next pandemic, these agents will likely be available only for limited distribution.

C. Stages of a Pandemic

The expected phases of an influenza pandemic defined by the WHO in 1999 were revised in 2005 based on the need for changes in public health action. Table 2 provides a summary of the new phases of pandemic influenza, and relates them (as much as possible) to the 1999 staging scheme. Each phase in the current staging scheme is associated with particular international and national public health actions recommended by WHO and CDC.

D. Surveillance for Influenza

The first line of defense against influenza is a worldwide surveillance system coordinated by the World Health Organization (WHO). This system makes it possible for changes in circulating influenza viruses and the emergence of novel influenza A viruses to be detected as soon as possible. The task of identifying circulating strains of influenza, whether known or novel, is done by a worldwide network of 110 National Influenza Centers, and many other WHO laboratories in 83 countries.

Each year, selected influenza virus isolates from state laboratories are submitted to the CDC in Atlanta. Tests are done to determine the antigenic and molecular make-up of the viruses. The CDC examines the viruses to determine which are the most important emerging influenza viruses, and their ability to cause outbreaks, and then provides this information at yearly meetings held by the Food and Drug Administration (FDA) and by WHO so it can be used to formulate vaccine for the next influenza season.

In addition, the CDC actively monitors U.S. disease activity and deaths related to influenza between October and May of each year. This information is provided each week in influenza surveillance summaries.

Table 2. Comparison of Pandemic Influenza Phases Published by WHO in 1999 and Those Used in the Montana Pandemic Influenza Response Plan

Phases as Published by WHO in 1999	2005 WHO Pandemic Stages
Interpandemic Period; Phase 0	Interpandemic Period; Phase 1. No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk ^a of human infection or disease is considered to be low.
	Interpandemic Period; Phase 2. No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk ^a of human disease.
Interpandemic Period; Phase 0, Level 1	Pandemic Alert Period; Phase 3. Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.
Interpandemic Period; Phase 0, Level 2	Pandemic Alert Period; Phase 4. Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans ^b .
Interpandemic Period; Phase 0, Level 3	Pandemic Alert Period; Phase 5. Large cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk) ^b .
Pandemic Period; Phase 1 (Multiple countries)	Pandemic Period; Phase 6. Pandemic phase: increased and sustained transmission in general population ^b .
Pandemic Period; Phase 2 (Multiple regions)	
Pandemic Period; Phase 3 (Case counts subsiding)	
Pandemic Period; Phase 4 (Next wave)	
Postpandemic Period; Phase 5	Postpandemic Period. Return to interpandemic period.

^aThe distinction between phase 1 and phase 2 is based on the risk of human infection or disease resulting from circulating strains in animals. The distinction would be based on various factors and their relative importance according to current scientific knowledge. Factors may include: pathogenicity in animals and humans; occurrence in domesticated animals and livestock or only in wildlife; whether the virus is enzootic or epizootic, geographically localized or widespread; other information from the viral genome; and/or other scientific information.

^bThe distinction between phase 3, phase 4 and phase 5 is based on an assessment of the risk of a pandemic. Various factors and their relative importance according to current scientific knowledge may be considered. Factors may include: rate of transmission; geographical location and spread; severity of illness; presence of genes from human strains (if derived from an animal strain); other information from the viral genome; and/or other scientific information.

E. Primary Responsibility of Federal Government

1. Vaccine research and development.
2. Coordinating national and international surveillance.
3. Assessing and potentially enhancing vaccine and antiviral capacity and coordinating public-sector procurement.
4. Devising a suitable liability program for vaccine manufacturers and persons administering the vaccine.

5. Developing a national “clearinghouse” for vaccine availability information, vaccine distribution and redistribution.
6. Developing a national vaccine adverse events report system.
7. Developing a national information database/exchange/clearinghouse on the Internet.
8. Developing “generic” guidelines and “information templates” that can be modified and/or adapted as needed at the state and local levels, including:
 - Guidelines for triage and treatment of influenza patients in outpatient, inpatient and non-traditional medical care settings.
 - Guidelines for state and local government for development and implementation of mass vaccination programs.
 - Guidelines for distribution and use of antiviral agents.
 - Fact sheets on influenza, influenza vaccine, and antiviral medications.
9. Pursuing mechanisms by which influenza vaccine can be made more rapidly available and in larger quantities prior to and during the next pandemic.
10. Issues travel alerts and advisories to areas where the novel strain of influenza is in wide circulation.

F. Organization of the Montana Influenza Pandemic Response Plan

This annex outlines the response to pandemic influenza as part of Montana’s comprehensive Human Disease/Public Health Emergency Plan. It is intended to be used in conjunction with other elements of the Human Disease/Public Health Emergency Plan including the Mass Vaccination/Prophylaxis Plan (Annex 1), the Isolation and Quarantine Plan (Annex 2), the DPHHS Risk Communications Plan (Annex 3) and the SNS Receipt and Distribution Plan (Annex 4). The Montana Influenza Pandemic Response Plan was developed using the CDC Planning Guide for State and Local Officials (Draft 2.1).

The document is organized into three sections corresponding to stages of public health activity:

- 1) Preparation
- 2) Implementation
- 3) Evaluation

Specific public health activities addressed in each stage include

- 1) Command and management
- 2) Surveillance
- 3) Communications
- 4) Vaccine delivery
- 5) Antiviral medications
- 6) Emergency Medical/Health Services

Each stage and associated activities are initiated by specific reference to WHO pandemic phases as shown in Table 3.

Notations are made in this plan to indicate where public health duties and responsibilities lie within the structure of an Incident/Unified Command System of the National Incident Management System.

The Montana Influenza Pandemic Response Plan must be considered a "Work in Progress," that will be updated when new information and guidelines from the WHO or CDC are available.

Table 3. Pandemic Influenza Plan: Initiation of Stages by Pandemic Phase

	Interpandemic Period		Pandemic Alert Period			Pandemic Period	Postpand. Period
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	
Command/Management	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Implementation Stage	Evaluation Stage
Surveillance	Preparation Stage	Preparation Stage	Implementation Stage	Implementation Stage	Implementation Stage	Implementation Stage	Evaluation Stage
Communication	Preparation Stage	Preparation Stage	Implementation Stage	Implementation Stage	Implementation Stage	Implementation Stage	Evaluation Stage
Vaccine	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Implementation Stage	Evaluation Stage
Antivirals	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Implementation Stage	Evaluation Stage
Emergency Hlth/Med Svcs	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Preparation Stage	Implementation Stage	Evaluation Stage



2. Preparation Stage

A. Command and Management (ICS-Command Staff)

The DPHHS, Communicable Disease Control and Prevention Bureau will be responsible for oversight of state preparations for influenza pandemic.

- The State Medical officer and State Epidemiologist will convene a Pandemic Influenza Preparedness & Response Committee (PIPRC) to develop a Pandemic Influenza Preparedness & Response Plan for Montana. (Note: This document is a product of this activity)
- The members of the PIPRC will provide input related to their specific areas of expertise for implementation of the state’s public health response to pandemic influenza. Members of the committee will include, but are not limited to;
 - State Medical officer
 - State Epidemiologist
 - CDC, Career Epidemiology Field Officer
 - Immunization Program Manager
 - Communicable Disease Surveillance Coordinator
 - MTPHL Technical Services Manager
 - Strategic National Stockpile Coordinator
 - DPHHS Public Health Emergency Preparedness & Response Coordinator
- Additional resources will provide advice and support to the committee as needed, and may include;
 1. Montana State Veterinarian
 2. MT Department of Livestock Veterinary Pathologist

3. DES Division Administrator
 4. Montana APIC
 5. Montana Hospital Association
 6. Montana Medical Association
- Responsibilities of the PIPRC
 - Develop the DPHHS pandemic influenza response plan
 - Assist local and tribal health departments in preparing for an influenza pandemic
 - Assemble as needed to address emergent pandemic influenza preparedness issues in response to changes in the global/national influenza situation
 - The PIPRC will review the Montana Pandemic Influenza Preparedness & Response Plan at least annually and update the document as needed. The State Epidemiologist will assume responsibility for ensuring the review and update of the document.

B. Surveillance (ICS-Operations Section/Surveillance Branch)

Influenza viruses have constantly changing antigenic properties. Surveillance for pandemic influenza must include both virologic surveillance, in which influenza viruses are isolated for antigenic and genetic analysis, and disease surveillance, in which the epidemiologic features and clinical impact of new variants are assessed. The goals of influenza surveillance are to detect the earliest appearance of a novel influenza virus in Montana and to describe the epidemiologic features of novel virus circulation in Montana. The following delineates relevant issues, roles and activities related to surveillance prior to an influenza pandemic;

- Surveillance for pandemic influenza is primarily a state function
- The Epidemiology & Communicable Disease Section, in close partnership with the MTPHL will have primary responsibility for surveillance of influenza activity and novel influenza viruses within the state.
- The Epidemiology & Communicable Disease Section will conduct surveillance for influenza-like illness (ILI) to identify increased influenza activity in the state. It is understood that ILI surveillance will not identify sporadic cases of a novel influenza virus.
- The Epidemiology & Communicable Disease Section in cooperation with the MTPHL will maintain Montana involvement in national influenza surveillance coordinated by CDC by assuming primary responsibility for implementing virologic, morbidity, and mortality surveillance components and compliance with future recommendations for surveillance enhancement.
- Laboratory-based virologic influenza surveillance activities will be maintained year round:
 - Communication between local clinical laboratories and MTPHL facilitates rapid notification of laboratory-based influenza activity
 - Weekly reports from MTPHL, as a WHO collaborating laboratory, to CDC with numbers of specimens received, and the number and type of influenza viruses isolated
 - MTPHL participation in the National Respiratory and Enteric Virus Surveillance System (NREVSS) for reporting viral activity. One additional Montana clinical laboratory is also a participant.
 - Monitoring CDC bulletins regarding virologic findings
 - Voluntary submission of original specimens to MTPHL from clinical laboratories and medical providers for confirmation, viral typing, and sub-typing, by culture and/or PCR methods
 - First positive rapid influenza tests of the season in each area of Montana
 - Positive rapid influenza tests during times of low influenza disease activity
 - Positive rapid influenza tests from vaccinated persons

- Voluntary submission of influenza virus isolates by clinical laboratories to the MTPHL for viral typing and sub-typing, either by PCR or culture methods.
 - Specimen collection and transport supplies and instructions for testing will be provided by MTPHL to identified fee-exempt sentinel surveillance providers, and to our clinical laboratory partners.
 - Submission of selected influenza isolates from MTPHL to CDC for antigenic analysis and possible use in future vaccine strain selection, as appropriate
- LHM's will support surveillance activities including case surveillance, laboratory surveillance and any enhanced surveillance activities
 - The Epidemiology & Communicable Disease Section will collaborate with the Montana Department of Livestock, Veterinary Diagnostic laboratory regarding zoonotic cases of influenza, especially among avian and swine populations
 - DPHHS will develop educational materials about influenza and pandemic influenza surveillance procedures for healthcare providers, laboratories and the public (see Communications Section for distribution plans)

C. Communications (ICS-Operations Section/Informatics Branch)

In an emergency situation, accurate, consistent and timely messages are key in 1) notifying and educating the public, 2) notifying and facilitating movement of emergency staff to their assigned duties and stations, and 3) roll-out of the emergency plan as intended. Following are communication-related issues that pertain to pandemic influenza;

- Assuring adequate communication systems will be a joint responsibility of federal, state and local public agencies.
- The public will likely encounter some unreliable and possibly false information on the Internet. DPHHS will communicate accurate, reliable information regarding the influenza pandemic.
- Mechanisms for communication with the public will vary depending on the phase of the pandemic and its impact on Montana communities.
- DPHHS will continually strive to communicate with all essential partners. Keeping all essential partners completely informed throughout the pandemic will be difficult.

Following are communication activities to be initiated during the preparation phase of an influenza pandemic;

- Develop a comprehensive communication plan in conjunction with DES that clearly establishes lines of communication and defines roles and responsibilities to avoid confusion and facilitate the best possible communication with partners.
- Identify appropriate individuals and groups to be notified of pandemic influenza activity in Montana
- Maintain a system to effectively communicate with target groups, including local public health officials and healthcare providers.
- Distribute informational updates to all appropriate partners as needed
- Regularly update and maintain the DPHHS website with the most current information available.
- Have on hand a disease fact sheet specific to pandemic influenza

D. Vaccine (ICS-Operations Section/Immunizations Branch)

Influenza vaccine and influenza vaccinations have long been considered the cornerstones of influenza prevention and control. During the past 20 years, the annual delivery of influenza vaccine to the American public has increasingly become an institutionalized event. The WHO Collaborating Influenza Centers, of which the CDC is the North American representative, conducts laboratory-based surveillance for influenza viruses throughout the year to provide outcome data that helps in the formation of influenza vaccines for subsequent seasons. It is through this monitoring system that a potential pandemic strain of influenza virus should be detected. During a typical influenza season, vaccine strains are selected by early spring when licensed vaccine manufacturers in the U.S. begin the manufacturing process resulting in the development of approximately 70-85 million doses of vaccine each year.

Montana maintains relatively high levels of influenza vaccination among persons age ≥ 65 years old in non-institutional settings as well as in long term care facilities. However, because of recent influenza vaccine supply problems, ensuring that patients at highest risk of complications from influenza infection are vaccinated has become increasingly difficult and costly. Vaccination programs during an influenza pandemic will present even greater challenges. Methods of vaccine delivery, administration, and inventory control depend on the vaccine supply and the epidemiologic features of the illness. Close collaboration between public and private healthcare providers is essential to the success of a pandemic influenza vaccination program. The following are assumptions and/or statements of fact pertaining to influenza vaccine

- It will take six to eight months after the novel virus is identified and begins to spread among humans before a specific vaccine would likely be available for distribution.
- Once confirmation of the pandemic has been declared, LHH's will have one to six months to prepare for vaccine delivery and administration.
- Two doses of influenza vaccine, administered four weeks apart will be needed to develop full immunity to the novel influenza virus.
- Approximately 20% of the needed supply of vaccine will be produced each month. The first month's supply will be purchased by the federal government and distributed to state and local health departments to vaccinate prioritized individuals providing critical public services.
- If federal resources are not available to purchase the remaining 80% of needed vaccine, DPHHS will seek the necessary funds to purchase the vaccine for Montana residents, perhaps through a formal state emergency declaration.
- Regardless of the availability of a vaccine that protects against the influenza pandemic strain, pneumococcal vaccine will reduce the risk of complications that can result from influenza infection. However, there are many complications of influenza that pneumococcal vaccine will not prevent.

Following are activities to be initiated during the preparation phase of an influenza pandemic:

- Continue to emphasize annual influenza vaccine and the use of pneumococcal vaccine during the preparation phases of the pandemic
- Distribute CDC standard vaccine information statements (VIS) that detail the risks and benefits of the vaccine in English and in various languages for non-English speakers
- Develop a mass-clinic template for LHH's regarding vaccine distribution, administration, documentation and security, including a prototype set of materials to distribute to LHH's to aid in the delivery of vaccines in community clinics. This template will include:
 - Standing orders
 - Suggested staffing needs and duties
 - Protocols for proper storage of a vaccine
 - A suggested list of supplies needed for clinic operations
 - A suggested clinic flow chart
 - Other printed materials as deemed appropriate and necessary

- Explore the feasibility of administering vaccine with needle-free injection systems, i.e., multi-dose jet injection apparatus and pre-filled syringes when those systems are available.
- Develop necessary standing orders and other written materials for healthcare providers that include recommendations to develop a vaccine strategic plan, a summary of the most recent ACIP influenza vaccine recommendations, clinic flow charts and handling and storage instructions.
- Revisit and update standing orders annually
- Provide information regarding the mechanism for ordering influenza vaccine from the DPHHS
- Identify state/local responsibility for stages of delivery, transport and security; determine method of vaccine delivery
- Work with LHJ's to develop a system to estimate the number of persons in priority groups for vaccination
- Ensure availability of adequate vaccine storage facilities using SNS and the Montana Immunization Program infrastructure
- Evaluate the security measures necessary for vaccine storage and mass vaccination clinics in the local health jurisdictions
- Assist LHJ's in the development and exercising of their local mass vaccination plan
- With the assistance of risk communication staff, assure all healthcare providers are notified of the need to vaccinate persons who are recommended by the ACIP to receive pneumococcal vaccine as a method of decreasing morbidity and mortality associated with pandemic influenza
- Use an electronic database that will record necessary demographic and vaccine information, primarily the Montana Immunization Registry in the Public Health Data System. The database must be capable of tracking and recall to ensure vaccinated individuals receive all necessary doses. The system must also be capable of tracking and monitoring adverse vaccine reactions
- Develop and distribute a packet of written materials to LHJ's who will distribute the packet to local healthcare providers. The packet should include a summary of the most current influenza vaccine recommendations issued by the ACIP, a fact sheet with suggestions on strategies that have been successful in reaching at-risk populations and others, camera-ready copies of the VIS, listings of other resources to promote and deliver adult vaccines. Electronic copies will be used when feasible. Paper copies will also be made available.

E. Antivirals (ICS–Operations Section/SNS Branch)

Four antiviral medications are currently available for prophylaxis or treatment of influenza A. Amantidine and rimantadine are chemically related drugs that interfere with the replication of influenza viruses. Oseltamivir (Tamiflu®) and zanamivir (Relenza®) are neuraminidase inhibitors that interfere with the release of viral particles from infected cells. Many studies have shown these drugs to be approximately 70% -90% effective in preventing illnesses caused by a variety of naturally occurring influenza A strains in both children and adults. Most experts believe that similar levels of efficacy can be achieved with novel influenza strains. However, essential data regarding any pandemic strain of influenza virus will be its sensitivity to each of the antiviral agents. All the antiviral medications have been shown to modestly reduce the severity and duration of influenza A symptoms when administered within 48 hours of symptom onset.

National experts are currently assessing the use of antivirals during an influenza pandemic. Until assessments of current and newly developed antivirals have been completed, antivirals will be included in the *Pandemic Influenza Response Plan* only as a contingency to control influenza. Antivirals will be considered for distribution to healthcare workers and other essential community service personnel.

Assumptions pertaining to antiviral use and availability include:

1. Antivirals are expected to play a limited role in the prevention and treatment of pandemic influenza.
2. The supply of these drugs will be well below the anticipated demand during an influenza pandemic.
3. Adverse effects are not uncommon with the influenza antivirals, ranging from mild gastrointestinal discomfort to significant neurological signs and symptoms.

Following are activities related to antivirals that will be initiated during the preparation stage;

1. Assess the feasibility of providing an interim stockpile of antiviral medications within the state. These antivirals will not be made available for public distribution, but will be used to maintain essential medical and public services within the public health regions. Key components of the feasibility study include:
 - a. Establish the location of antiviral stockpiles, *e.g.* likely in central hospitals such as the ChemPack or Pharmaceutical caches
 - b. Identification of essential medical and public health service entities that would benefit from short term antiviral medication
 - c. Identification of individuals responsible for the storage and distribution of antiviral medication in their region
 - d. Possible procurement of antiviral medication and source of funding...
2. DPHHS will be responsible for developing criteria for use of antiviral medication from state stockpiles. This criteria will include:
 - a. Estimates of the amount of antiviral medication needed to maintain essential services
 - b. Methods of distribution of antiviral medication (*See SNS Annex*)
 - c. Maintain an interim stockpile of antivirals
 - d. Assist local health jurisdictions with this development
3. In cooperation with the CDC, develop education materials for healthcare professionals and the public regarding the use of antiviral medication for treatment and prevention of influenza

F. Emergency Health/Medical Services (ICS-Operations Section/Emergency Svcs Branch)

All state and local governments are required to have an emergency management plan which address all hazards. However, pandemic influenza is likely to pose unique challenges that may not be addressed in current emergency management plans. Because of the many unique challenges that will arise, emergency management plans should incorporate a pandemic influenza plan as an appendix to the existing plan. Some of the relevant issues that must be addressed in these plans include:

1. Medical services and healthcare workers will be overwhelmed during the influenza pandemic
2. Healthcare workers may not be able to provide essential care to all patients in need
3. Unlike the typical disaster, because of increased exposure to the virus essential community services personnel such as healthcare personnel, police, firefighters, emergency medical technologists, and other first responders, will be more likely to be affected by influenza than the general public
4. Unlike typical natural disasters, during which critical components of the physical infrastructure may be threatened or destroyed, an influenza pandemic may also pose significant threats to the human infrastructure responsible for critical community services due to widespread absenteeism in the workforce. This will impact distribution of food, home meal deliveries, day care, garbage collection and other critical services

Following are activities related to emergency health/medical services that will be initiated during the preparation stage:

- Through the National Bioterrorism Hospital Preparedness Program (NBHPP), work with MT hospitals in the development of a strategic medical plan based on trauma center designations that will interface with local and state wide public health emergency plans.
- Through NBHPP, Epidemiology, and Emergency Preparedness staff at DPHHS, work with the hospital, LHJ to formulate the location and operation of alternate triage and alternate care sites in each community where possible.
- Through NBHPP, ensure that all hospitals have prophylaxis plans for staff and their families and also work with LHJ's to prepare prophylaxis for first responders and families.
- With NBHPP and CDC funds, identify and resolve the critical legal issues for developing and operating alternate care facilities and other shared community concerns such as pharmaceutical dispensing issues in mass vaccination and/or prophylaxis
- Develop the Health Information & Resource Management System (HIRMS) to aid in resource management for hospitals and pre-hospital services. Maintain a statewide inventory of identified resources that could be utilized either by hospitals, pre-hospitals and LHJ's.
- Facilitate the integration of NIMS compliant ICS in both tribal/public health and hospitals through mutual aid planning, training, and exercising. Integrate an Emergency Operations Center management component into the HIRMS.
- Conduct local exercises to test the new components or updates to the local plans; conduct regional exercises (1st based on the Trauma System designation; then move to a "regional focus").
- Conduct a statewide exercise involving community partners to test the triage systems, the transfer systems, the alternate care facility activation, ordering SNS, and how local, regional and state EOC's work together in an instance such as pandemic influenza.
- Through NBHPP and in conjunction with local hospital and LHJ's emergency plans, HIRMS will develop and maintain an inventory of voluntary healthcare personnel through the that includes:
 - physicians
 - physician assistants
 - nurse practitioner; advanced practice registered nurses (APRN)
 - pharmacists and pharmaceutical technicians
 - laboratory and diagnostic imaging specialists
 - registered nurses, licensed practical nurses, certified nurse assistants
 - home health personnel
 - medical assistants and
 - other persons who may be trained in the event of an emergency to render care
- HIRMS will maintain a registration and credentialing database of all licensed health professionals in Montana who volunteer to be part of this system.
- HIRMS will maintain an inventory or appropriate listing of the following items within each facility - Inventories of:
 - Current capacity (hospital and long-term care where co-joined)
 - ICU/CCU current capacity
 - Current #ventilators available
 - Current #negative pressure air isolation rooms available
 - Sources of medical supplies and other personal protective equipment (PPE)
 - Listing of alternate triage and care facilities
- Hospital and LHJ emergency response plans need to collaboratively addresses the human services implications of disaster:
 - disaster mental health needs
 - substance abuse-related needs
 - disability-related needs
 - age-related needs (e.g., needs of older adults and children)
 - needs related to culture, language, and literacy

- circumstances of populations with special needs
- The NBHPP Coordinator will develop a state Medical Surge Capacity Plan. The purpose of the Medical Surge Capacity Plan is to establish the necessary structure and processes to:
 - enable participating institutions to meet community, county and regional medical needs in a collaborative and organized manner
 - allow all participant institutions in the state to request use of each other's resources in case of an influenza pandemic.
- NBHPP will work with MT hospitals in updating their emergency plan to address bioterrorism and catastrophic communicable disease events. Each hospital plan will address:
 - the capacity for isolation of persons with communicable diseases including pandemic influenza
 - enhancement of bed surge capacity of each hospital
 - offsite options for triage and care of patients
 - the immediate deployment of additional patient care personnel
 - a system that allows credentialing and supervision of clinicians not normally working in specified hospitals while responding to an emergency incident
 - enhancement of pharmaceutical surge capacity
 - adequate personal protection of healthcare workers
 - provision of acute psychological interventions and long term mental health services to patients and healthcare workers
 - maintenance of a communication system with state and local public health officials

3. Implementation Stage

A. Command and Management (ICS-Command Staff)

- The Incident Advisory Group (IAG) will provide a pandemic influenza situation update to the DPHHS, PHSD Administrator
- In consultation with the IAG, the PHSD Administrator or their designee will decide on the need for activation of the DPHHS EOC. Topics of discussion will include;
 - Full or partial activation of the DPHHS EOC
 - Staffing of the EOC if/when activated
 - Identification and notification of additional staff to assist in the response to the pandemic
- With guidance from the IAG, the PHSD Administrator will determine whether or not to advise the DPHHS Director to recommend the Governor declare a "State of Emergency in Montana" in response to the influenza pandemic.
- The ICS command staff will meet as often as needed to guide the implementation of Montana's pandemic influenza response
- All divisions, bureaus and sections within DPHHS will be prepared to assume a supportive role if needed, working with the management team in ways appropriate to their program authority and responsibilities.
- The MTPHL will provide testing and technical support to the DPHHS pandemic response, coordinate the communication of local lab test results to MTPHL, consult with local clinical laboratories about influenza test results, and provide guidance to clinical laboratories statewide.

- The DPHHS, ICS Command Staff will monitor departmental staffing needs, and reassign personnel or request additional assistance as necessary.

B. Surveillance (ICS-Operations Section/Surveillance Branch)

- Continue Montana influenza surveillance activities as described in Preparation Stage (1B)
- Inform/update LHJ's about the novel influenza virus detected
- Implement enhanced active surveillance for cases by LHJ
- Implement enhanced laboratory surveillance to include the following;
 - Encouragement of specimen submission through notification of public health providers to collect respiratory specimens from patients who present with ILI and:
 - had recent travel to a region where the novel strain of influenza has been identified; or
 - had received influenza vaccine within the previous year and present with ILI; or
 - present with unusually severe symptoms of ILI regardless of their travel history
 - Submission of these specimens to the MTPHL to test for the novel influenza virus. The submitter may send a duplicate specimen to their usual laboratory provider for detection of influenza viruses, if desired
 - Cross trained Clinical Laboratory Specialists (CLSps) in virologic and molecular influenza methods are available for reassignment of duties to meet surge demands or in the face of high absenteeism.
 - Adequate inventory of laboratory reagents and supplies are maintained, and a list of sources are in place to quickly order supplies for increased demands. Molecular equipment will be upgraded to meet the increased demand for testing.
 - Triage of specimens will be performed using existing protocols. Working with the Epidemiology Section, specimens will be prioritized as needed for patient management.
 - Promotion of safe laboratory work practices. None of the state clinical laboratories or the MTPHL have BSL-3+ facilities. If the novel influenza virus requires BSL-3+ capabilities to provide safe working conditions for virus propagation, only molecular testing would be performed at the MTPHL. Those specimens would be referred to the Centers for Disease Control for viral culture, if requested through communications. Safety messages to our laboratory partners would be communicated through our Laboratory e-mail/fax distribution list.

Enhanced influenza surveillance will continue until the Operations Section decides to discontinue enhanced influenza surveillance. This will likely occur when the novel influenza virus has been identified in all regions of the state during any of the phase of the pandemic or when transmission of the novel virus has ceased.

C. Communications (ICS-Operations Section/Informatics Branch)

Following are communication activities to be initiated during the implementation phase of an influenza pandemic;

- Place DPHHS Communications Plan (Annex 3: Montana Human Disease/Public Health Emergency Plan) into action.
- DPHHS Risk Communication staff should meet as needed with Epidemiology Section and Laboratory Bureau staff to maintain a proficient level of understanding of the unfolding influenza pandemic.
- Operations Section staff will develop technical communiqués appropriate to specific target audiences. A separate "package" messages will be developed as needed focusing on issues particular to the group. Information may include:
 - vaccine development and supply

- isolation and quarantine recommendations
- antiviral use
- contact investigation
- prevention and infection control methods

-Utilize the state HAN system to notify health partners of new developments, share treatment protocols and other relevant information.

D. Vaccine (ICS-Operations Section/Immunizations Branch)

Following are activities to be initiated during the implementation phase of an influenza pandemic:

- Distribute pre-developed standing orders and other written materials for healthcare providers that include recommendations to develop a vaccine strategic plan, a summary of the most recent ACIP influenza vaccine recommendations, clinic flow charts and handling and storage instructions
- Distribute vaccine, when available, through a centralized distribution system to local health departments using SNS and/or Montana Immunization Program infrastructure for storage and transport of vaccine and supplies
- Specify and distribute the number of doses of vaccine and medical supplies to local health departments based on population and distribution of prioritized essential services personnel
- Consult with DES to coordinate assistance in the storage security, and transportation of vaccine and supplies, as appropriate
- Establish a prioritization scheme to vaccinate those state and local government officials and personnel deemed as a priority to maintain essential services.
- Implement vaccination of those government officials and state and federal personnel deemed as a priority to maintain essential services
- Monitor adverse reactions to influenza vaccine through VAERS
- Locate, purchase and distribute pneumococcal vaccine for high-risk individuals to be administered by healthcare providers, home health agencies, LHJ's and others

E. Antivirals (ICS-Operations Section/SNS Branch)

Following are activities relating to antivirals that will be initiated during the implementation stage;

DPHHS will:

1. Purchase antiviral medication for the interim Montana stockpile.
2. The State Health Officer with consultation from the PIPRC will provide guidance regarding the distribution of antivirals to individuals employed in essential services.

F. Emergency Health/Medical Services (ICS-Operations Section/Emergency Svcs Branch)

Following are activities relating to emergency health/medical services that will be initiated during the implementation stage;

- Should the need for additional medical personnel be necessary, local EOC's will notify the DPHHS EOC to access the emergency assistance volunteer registry in effort to identify available human resources

- DPHHS will utilize lists and inventories in HIRMS to identify needed supplies, equipment or services to assist LHJ's or local emergency management agencies
- Using systems identified in the communications preparation stage of this document, Operations Section staff will update hospitals on the status of the influenza pandemic in the nation and statewide. The updates can be used by hospitals to determine when the hospital public health emergency plans are implemented and offsite triage facilities opened.
- LDH's will communicate with DPHHS regarding the activation of hospital public health emergency preparedness plans in their jurisdiction
- The Operations Section, Healthcare Branch Director will be responsible for receiving updates from healthcare facilities statewide. These updates will include, at minimum;
 - o The status of inventories and services maintained
 - o Census reports from each facility
 - o Reports on the activation of their emergency plan

4. Evaluation Stage

A. Command and Management

- The DPHHS, ICS command staff and general staff will meet with DES, EOC representatives after demobilization to evaluate the performance DPHHS command and management during the influenza pandemic.

B. Surveillance

- The CDC document "Updated Guidelines for Evaluating Public Health Surveillance Systems" [MMWR, July 27, 2001/50(RR13); 1-35] will be utilized to evaluate surveillance activities during the influenza pandemic.

C. Communications

- Communications activities will be evaluated by soliciting input/feedback from recipients of DPHHS communications during the influenza pandemic.

D. Vaccine

- DPHHS, Immunization Section staff after the influenza pandemic will evaluate the successfulness of vaccination activities during the pandemic by reporting on the following:
 - o Number of doses of influenza vaccine that were shipped to local health jurisdictions,
 - o Number of doses of influenza vaccine that were administered in the local health jurisdictions,
 - o Number of people who returned and received second dose of influenza vaccine,
 - o Comparison of the number of vaccine doses offered to priority groups in each county to the number of influenza vaccine doses that were administered to the priority groups,
 - o Number of local health jurisdictions that held mass immunization clinics, and the number of people that received vaccine during the mass clinics,
 - o Report on any breaches to the security of the vaccine during transport, storage and during clinics.

E. Antivirals

- DPHHS will participate in the evaluation of the pandemic response as determined by the Pandemic Influenza Plan Workgroup.

F. Emergency Health/Medical Services

- DPHHS will participate in the evaluation of the pandemic response as determined by the Pandemic Influenza Plan Workgroup.

Montana Department of Public Health and Human Services
Public Health Laboratory

Influenza Specimen Collection and Transport Guidelines

The following collection and transport guidelines are applicable to both Influenza culture and real time PCR testing. Subtyping of Influenza isolates (H1, H3, H5) can be done on both culture and PCR, but further characterization (Fujian-like strain) requires a cultured isolate.

Influenza Specimen Collection Guidelines

Collection and Transport kits are available from the Montana Public Health Laboratory (MTPHL) by calling 800-821-7284. Collection kits are comprised of a tube of pink Viral Transport Media (M4), with three different types of swabs. One swab is a Dacron swab on a flexible wire, for NP collection. The throat swab is collected with the larger Dacron swab on a plastic stick. The third swab is for urethral collections, and is not used for respiratory specimen collection.

Viral Transport Media (M4) is stored at room temperature until used. Check the expiration date to ensure an adequate in-date supply.

Respiratory specimens should be collected within the first 72 hours post onset, since viral shedding is at a peak during this time, and recovery will be optimized.

Throat Swab Collection

1. Gather collection materials and use the large plastic shafted Dacron swab.
2. Using a tongue depressor, insert the swab and vigorously rub the tonsils and the posterior pharynx.
3. Carefully remove the swab, not touching any area of the mouth.
4. Insert the swab into the Viral Transport Media tube and break off the swab at the score line.
5. Cap the tube tightly; label the tube with the patient's name and date of collection.
6. Refrigerate the specimen until transport.
7. Complete the request form (DPHHS Form PHL 0804).

Nasopharyngeal Swab Collection

1. Gather collection materials and use the flexible wire swab.
2. Instruct the patient to sit with head slightly tilted backwards.
3. Bend the flexible wire in a small arc, and insert the swab into the nostril back to the nasopharyngeal cavity. The patient's eyes will momentarily tear.
4. Slowly rotate the swab as it is being withdrawn.
5. Insert the swab into the Viral Transport Media tube, bending or cutting the wire to fit entirely inside the tube.
6. Cap the tube tightly; label the tube with the patient's name and date of collection.
7. Refrigerate the specimen until transport.
8. Complete the request form (DPHHS Form PHL 0804).

Nasopharyngeal Wash Collection

1. Gather collection materials and bring saline to room temperature. Use only sterile saline to collect the NP wash.
2. Instruct the patient to sit with head slightly tilted backwards, and to hold the sterile collection cup.

Influenza Specimen Collection and Transport Guidelines

3. Instruct the patient on how to constrict the muscles at the back of the throat by saying the “K” sound rapidly and repetitively. Inform the patient that this process may prevent the saline from draining down the throat.
4. Fill a 5 cc syringe with sterile saline. Gently push the tip of the patient’s nose back with your thumb, and quickly inject 1 – 2 ml. of sterile saline into each nostril.
5. Instruct the patient to contain the saline in the nostrils for approximately 10 seconds while repetitively saying the “K” sound. After 10 seconds, ask the patient to tilt their head forward and collect the saline in the sterile cup.
6. Pour the saline collected from the patient into the tube containing Viral Transport Media. The saline and VTM media should be in approximately equal amounts.
7. Cap the tube tightly; label the tube with the patient’s name and date of collection.
8. Refrigerate the specimen until transport.
9. Complete the request form (DPHHS Form PHL 0804).

Specimen Transport

1. Ensure that specimens are properly labeled and the request form is completed.
2. Place labeled specimen in a small biohazard specimen bag containing absorbent packing material and seal.
3. Put the smaller bag into a larger bag and seal. Place the lab request form in the pocket of the larger bag.
4. Place bagged specimen(s) in a Styrofoam cooler with frozen blue ice packs, seal cooler for shipment to the MTPHL and affix correct address label to cooler.
5. Ship specimen without delay. Specimens must be delivered to the laboratory within 48 hours of collection.
6. Each shipment of specimens must comply with shipping regulations for diagnostic specimens, detailed in IATA 1.5 and 49 CFR Section 1720700 (U.S. Department of Transportation).
7. Ship specimens to the following address:

Montana Public Health Laboratory
PO Box 6489
Helena, MT 59604-6489

Street address is : 1400 Broadway
Helena, MT 59620

Result Reporting

Negative cultures and real time PCR results are mailed to the submitter. Positive cultures and PCR results are telephoned to the provider and to the DPHHS Disease Surveillance Coordinator.

Specimen Rejection

Specimens with unresolved labeling issues, leaking containers, or with insufficient volume may be rejected. The provider will be notified and asked to resubmit.

Requests for Additional Information or Specimen Collection Questions:

For additional information or questions, or to order collection kits, contact the MTPHL at 800-821-7284 or 406-444-3444.

Roles of Local Health Departments During an Influenza Pandemic

Command and Management

1. Identify who will be administrative and medical decision makers during the pandemic
2. Develop a local pandemic influenza preparedness plan that corresponds to existing emergency plans
3. Meet with local stakeholders and review major elements of the local pandemic influenza plan
4. Decide when the pandemic plan is implemented and assure local emergency plans are implemented during the influenza pandemic
5. Develop and implement a local mass vaccination plan based on the template provided by the Division of Public Health
6. Using Flu-Aid software from the CDC develop the local estimated impact of an influenza pandemic
7. Develop a plan to close and re-open schools, businesses and other public events, if necessary.
8. Develop a plan to educate the public prior to the onset of the pandemic

Surveillance

1. Support state surveillance activities including Sentinel Clinician Surveillance and Laboratory Surveillance and any enhanced surveillance activities
2. Monitor local death rates
3. (If determined feasible) monitor local hospital census
4. (If determined feasible) monitor absentee rates in schools
5. Keep the DPHHS Communicable Disease Surveillance Coordinator informed of surveillance activities

Emergency Response: Maintenance of Essential Health and Medical Services And Other Essential Services

1. Develop and maintain an inventory of voluntary emergency medical personnel and supplies
2. Local health departments in consultation with local emergency managers should develop a local Emergency Operations Plan (EOP) including plans for pandemic influenza.
3. Development of a mass fatality disaster plan.
4. Participate, if requested, in mass fatality disaster exercises.
5. Assure local registrars have development of plans for filing and issuing death certificates in a mass fatality situation
6. Assure that hospital public health emergency plan is implemented.
7. In conjunction with the Division of Public Health, receive updates, no less than weekly, from public health regional offices.
8. Identify essential services within the jurisdiction and develop a local plan to assure as little interruption of these services as possible. Services may include, local agriculture and farms, home healthcare and delivery of food to those in need

Communications

1. Develop a communication plan in conjunction with local emergency management coordinators and hospitals in their area.
2. Determine if a local JIC will be opened at the local EOC. If so, then media relations can occur at the local JIC
3. Coordinate communication plans with HRSA recommendations. The public (and the media) will be contacting healthcare providers and hospitals for medical information.
4. Develop a 24/7 contact list for staff.
5. Develop a list of local media contact names and numbers and methodology to quickly send them information
6. Develop an internal plan on how to distribute information passed on from DPH to appropriate LHJ staff
7. Determine the feasibility of establishing a local information hotline and a plan to staff the call center.
8. Conduct daily briefing with spokespersons and clinic leaders to determine new information to be relayed to public. This information should also be relayed to State DPH for state communications.

9. Develop a method to post current information on LHJ or municipal website.
10. Develop plans for communicating with special populations in the local area (Hmong, Hispanic, Amish etc.)
11. Designate spokespeople for local media. LHJ officers should identify a primary spokesperson and backups in conjunction with local emergency management, HIRSA recommendations and local elected officials.
12. It might be that the county emergency management director should be the primary spokesperson, with health information provided by the local public health department.
13. Keep in mind that local elected officials might want to take on the spokesperson role. In that case, a local public health official should be with the elected official at all media briefings in order to answer health-related questions.
14. In addition, if a LHJ is short-staffed and can't designate multiple spokespeople, a local physician can serve as a local spokesperson.

Vaccine

1. Develop, practice and implement a mass-vaccination plan.
2. Continue to emphasize annual influenza vaccine and the use of pneumococcal vaccine during the preparation phases of the pandemic.
3. Coordinate activities with bordering jurisdictions
4. Identify priority groups for vaccination specific to pandemic influenza
5. Develop a system to estimate the number of persons in priority groups for vaccination
6. Develop standing orders for influenza vaccination
7. Improve current influenza and pneumococcal vaccination programs
8. Assure the security of influenza vaccine during storage and delivery when available
9. Support state stockpiles and the delivery of antivirals to priority groups.

Recommendations Regarding the Prioritization of Vaccination

<p>Category 1</p>	<p>Groups at highest risk for serious influenza-related complications, including:</p> <ul style="list-style-type: none"> • First Responders and Emergency Medical Service Personnel • Physicians, nurses, and other staff in hospital and outpatient settings who provide direct patient care. • Household members (including children) of persons in the above high risk groups. • Law enforcement Officers and/or National Guard protecting the vaccine stores and/or the personnel distributing and administering vaccine. • Health care workers and public health personnel involved in the distribution of vaccine and antiviral agents • Persons responsible for community safety and security, e.g., police, firefighters, military personnel, National Guard, "first responders" not included in first priority group (e.g., ambulance drivers) • Other highly skilled persons who provide essential community services whose absence would either pose a significant hazard to public safety (e.g., nuclear power plant workers) or severely disrupt the pandemic response effort (e.g., persons who operate regional telecommunications or electric utility grids, snow plow operators during winter conditions). [NOTE: Members of this target group are likely to vary widely from jurisdiction to jurisdiction, depending on local circumstances.] <p>The priority of immunization of the individuals listed below may vary dependent upon the group at highest risk (i.e. the 1918 Influenza Pandemic was a disease of healthy young adults and children and the elderly were for the most part spared).</p> <ul style="list-style-type: none"> • Persons 65 years of age or older. • Residents of nursing homes and other chronic-care facilities that house persons of any age who have chronic medical conditions. • Adults and children who have chronic disorders of the pulmonary or cardiovascular systems, including children with asthma. • Adults and children who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications). • Children and teenagers (age 6 months to 18 years) who are receiving long-term aspirin therapy that might put them at risk for developing Reye=s syndrome after influenza. • Women who will be in the second or third trimester of pregnancy during the influenza season.
<p>Category 2</p>	<p>Those persons who provide direct care to persons in category 1, including:</p> <ul style="list-style-type: none"> • Employees of nursing homes and chronic-care facilities who have direct contact with patients or residents. • Employees of assisted living and other residences for persons in high-risk groups who provide direct care. • Providers of home care to people at high risk (e.g., visiting nurses and volunteer workers). • Household contacts of persons with high-risk medical conditions
<p>Category 3</p>	<p>Otherwise healthy persons age 6 months and older who wish to reduce their likelihood of becoming ill with influenza, such as:</p> <ul style="list-style-type: none"> • Students and other persons in institutional settings (e.g., college students in dormitories). • Employees of health care facilities who do not provide direct patient care. • Persons who provide essential community services. • Healthy persons in the workplace. • Others.

Selected Powers and Duties of Local Health Officer and Boards.

The excerpts below are not intended to outline all the responsibilities and powers of local health boards and/or local health officers. Additional statutes and Administrative Rules of Montana may grant additional authorities and responsibilities.

50-2-116. Powers and duties of local boards.

(1) Local boards shall:

- (a) appoint a local health officer who is a physician or a person with a master's degree in public health or the equivalent and with appropriate experience, as determined by the department, and shall fix the health officer's salary;
- (b) elect a presiding officer and other necessary officers;
- (c) employ necessary qualified staff;
- (d) adopt bylaws to govern meetings;
- (e) hold regular meetings quarterly and hold special meetings as necessary;
- (f) supervise destruction and removal of all sources of filth that cause disease;
- (g) guard against the introduction of communicable disease;
- (h) supervise inspections of public establishments for sanitary conditions;
- (i) subject to the provisions of 50-2-130, adopt necessary regulations that are not less stringent than state standards for the control and disposal of sewage from private and public buildings that is not regulated by Title 75, chapter 6, or Title 76, chapter 4. The regulations must describe standards for granting variances from the minimum requirements that are identical to standards promulgated by the board of environmental review and must provide for appeal of variance decisions to the department as required by 75-5-305.

(2) Local boards may:

- (a) quarantine persons who have communicable diseases;
- (b) require isolation of persons or things that are infected with communicable diseases;
- (c) furnish treatment for persons who have communicable diseases;
- (d) prohibit the use of places that are infected with communicable diseases;
- (e) require and provide means for disinfecting places that are infected with communicable diseases;
- (f) accept and spend funds received from a federal agency, the state, a school district, or other persons;
- (g) contract with another local board for all or a part of local health services;
- (h) reimburse local health officers for necessary expenses incurred in official duties;
- (i) abate nuisances affecting public health and safety or bring action necessary to restrain the violation of public health laws or rules;
- (j) adopt necessary fees to administer regulations for the control and disposal of sewage from private and public buildings. The fees must be deposited with the county treasurer.
- (k) adopt rules that do not conflict with rules adopted by the department:
 - (i) for the control of communicable diseases;
 - (ii) for the removal of filth that might cause disease or adversely affect public health;
 - (iii) subject to the provisions of 50-2-130, on sanitation in public buildings that affects public health;
 - (iv) for heating, ventilation, water supply, and waste disposal in public accommodations that might endanger human lives;
 - (v) subject to the provisions of 50-2-130, for the maintenance of sewage treatment systems that do not discharge an effluent directly into state waters and that are not required to have an operating permit as required by rules adopted under 75-5-401; and
 - (vi) for the regulation, as necessary, of the practice of tattooing, which may include registering tattoo artists, inspecting tattoo establishments, adopting fees, and also adopting sanitation standards that are not less stringent than standards adopted by the department pursuant to 50-1-202. For the purposes of this subsection, "tattoo" means making permanent marks on the skin by puncturing the skin and inserting indelible colors.
- (l) adopt regulations for the establishment of institutional controls that have been selected or approved by the:

- (i) United States environmental protection agency as part of a remedy for a facility under the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9601, et seq.; or
- (ii) department of environmental quality as part of a remedy for a facility under the Montana Comprehensive Environmental Cleanup and Responsibility Act, Title 75, chapter 10, part 7.

50-2-118. Powers and duties of local health officers.

- (1) Local health officers or their authorized representatives shall:
- (a) make inspections for sanitary conditions;
 - (b) as directed by the local board, issue written orders for the destruction and removal of filth which might cause disease;
 - (c) with written approval of the department, order buildings or facilities where people congregate closed during epidemics;
 - (d) on forms provided by the department, report communicable diseases to the department each week;
 - (e) before the first day of January, April, July, and October, give a report to the local board of sanitary conditions in the county, city, city-county, or district, together with a detailed account of his activities, on forms and containing information required by the department;
 - (f) before the 10th day after the report is given to the local board, send a copy of the report required by subsection (1)(e) of this section to the department;
 - (g) as prescribed by rules adopted by the department, establish and maintain quarantines;
 - (h) as prescribed by rules adopted by the department, supervise the disinfection of places at the expense of the local board when a period of quarantine ends;
 - (i) notify the department of his appointment and changes in membership of the local board;
 - (j) file a complaint with the appropriate court if this chapter or rules adopted by the local board or state department under this chapter are violated;
 - (k) validate state licenses issued by the department in accordance with chapters 50 through 53 of this title.
- (2) With approval of the department, local health officers may forbid persons to assemble in a place if the assembly endangers public health.
- (3) A local health officer who is a physician may be placed in charge of a communicable disease hospital, but a local health officer who is a physician is not required to act as a physician to the indigent.
- (4) A local health officer who is not a physician shall not act as a physician to anyone.

History: En. Sec. 87, Ch. 197, L. 1967; and. Sec. 2, Ch. 196, L. 1971; and. Sec. 56, Ch. 349, L. 1974; R.C.M. 1947, 69-4510; and. Sec. 1, Ch. 200, L. 1979; and. Sec. 18, Ch. 708, L. 1991.

50-2-120. Assistance from law enforcement officials. A state or local health officer may request a sheriff, constable, or other peace officer to assist him in carrying out the provisions of this chapter. If the officer does not render the service, he is guilty of a misdemeanor and may be removed from office.

History: En. Sec. 90, Ch. 197, L. 1967; R.C.M. 1947, 69-4513; and. Sec. 1, Ch. 37, L. 1979.

50-2-122. Obstructing local health officer in the performance of his duties unlawful. It is unlawful to:

- (1) hinder a local health officer in the performance of his duties under this chapter;
- (2) remove or deface any placard or notice posted by the local health officer; or
- (3) violate a quarantine regulation.

History: En. Sec. 94, Ch. 197, L. 1967; R.C.M. 1947, 69-4517.

Cross References:

Obstructing peace officer or other public servant, 45-7-302.

Penalties for violations, 50-2-124.

50-2-123. Compliance order authorized. If a person refuses or neglects to comply with a written order of a state or local health officer within a reasonable time specified in the order, the state or local health officer may cause the order to be complied with and initiate an action to recover any expenses incurred from the person who refused or neglected to comply with the order. The action to recover expenses shall be brought in the name of the city or county.

History: En. Sec. 96, Ch. 197, L. 1967; and. Sec. 108, Ch. 349, L. 1974; and. Sec. 3, Ch. 273, L.

Standing Order Guidelines for Influenza Vaccination

1. Outline a plan in writing for vaccine administration or distribution of anti-microbials.
2. List key service-delivery components and quality assurance measures.
3. Identify persons eligible for vaccination based on established priority list.
4. Outline the screening measures for each client, based on known contraindications to vaccination or use of the anti-viral medications.
5. Provide adequate information to recipients regarding the risks for and benefits of a vaccine, and document the delivery of that information.
6. Provide for a method to document refusals or medical contraindications.
7. Develop a standardized method to record administration of a vaccine dose.
8. Provide for standardized method for vaccine recipients to notify appropriate provider of any post-vaccination adverse events. Use of the Vaccine Adverse Events Reporting System (VAERS) should be reviewed and implemented.
9. The history of a client, made available from a primary health care office may over-ride a standing order.
10. Vaccine providers and their titles or qualifications to administer vaccine and anti-viral medications should be listed on the orders.
11. A committee should be formed to review the standing orders. The committee may include a medical director, nursing director, infection-control and quality-assurance personnel, and medical or nursing staff representatives.
12. The Standing Orders should be signed and dated by a physician licensed to practice medicine in any jurisdiction in the United States or Canada and who holds a degree as a doctor of medicine or of osteopathy.

Related Internet Links

1. <http://www.cdc.gov/flu>. This is the official CDC Influenza home page. It contains the following links for health professionals;
 - a) Vaccination
 - b) Clinical Description and Diagnosis
 - c) Background
 - d) Training
 - e) Flu Bulletins
 - f) Infection Control
 - g) Antivirals
 - h) Patient Education
 - i) References & Resources
 - j) Surveillance
2. <http://www.cdc.gov/flu/professionals/flubulletin.htm>. This is the link CDC's "Influenza Vaccine Bulletin". It summarizes the most recent developments and the current situation regarding;
 - a) Influenza vaccine supply and production
 - b) Vaccine distribution and administration
 - c) Vaccine communications and resources
 - d) Miscellaneous information
3. <http://www.cdc.gov/flu/avian/index.htm>. This is the official CDC Avian Influenza home page. Importantly, it contains updated outbreak information on the avian influenza situation in Asia and North America.
4. <http://www.hhs.gov/nvpo>. This is the official home page for the National Vaccine Program Office. The site provides pertinent information about childhood, adolescent, and adult immunizations, including influenza.
5. <http://www2.cdc.gov/od/fluaid/default.htm>. Use this site to access is a test version of software created by CDC to assist state and local level planners in preparing for the next influenza pandemic by providing estimates of potential impact specific to their locality.
6. <http://www.cdc.gov/flu/flusurge.htm>. Use this site to access FluSurge, a CDC-developed, spreadsheet-based program that provides hospital administrators and public health officials estimates of the surge in demand for hospital-based services during the next influenza pandemic.
7. <http://www.dhhs.gov/nvpo/pandemicplan/finalpandemiccore.pdf>. This is the current draft of the HHS plan that outlines a coordinated national strategy to prepare for and respond to an influenza pandemic.
8. <http://www.who.int/csr/disease/influenza/pandemic/en/>. This is the WHO pandemic influenza preparedness home page.