Wisconsin Pandemic Influenza Preparedness

Bureau of Communicable Diseases
Division of Public Health
Department of Health and Family Services

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ACRONYMS

ACIP	**Advisory Committee on Immunization Practices**
BCD	**Bureau of Communicable Diseases**
BHI	**Bureau of Health Information**
BQA	**Bureau of Quality Assurance**
CDC	**Centers for Disease Control and Prevention**
CDES	**Communicable Disease Epidemiology Section**
DATCP	**Department of Agriculture Trade and Consumer Protection**
DCFS	**Division of Children and Family Services**
DHFS	**Department of Health and Family Services**
DMA	**Department of Military Affairs**
DMORT	**Disaster Mortuary Operations Team**
DOA	**Department of Administration**
DPH	**Division of Public Health**
DPI	**Department of Public Instruction**
EIS	**Epidemic Intelligence Service**
EMT	**Emergency Medical Technician**
EOC	**Emergency Operations Center**
EOP	**Emergency Operations Plan**
FDA	**Food and Drug Administration**
FEMA	**Federal Emergency Management Agency**
HAN	**Health Alert Network**
ICP	**Infection Control Professional**
ICS	**Incident Command System**
ILI	**Influenza-like illness**
JPIC	**Joint Public Information Center**
LHD	**Local Health Department**
LIN	**Laboratory Information Network**
MHDPHL	**Milwaukee Health Department Public Health Laboratory**
NIMS	**National Incident Management System**
NREVSS	**National Respiratory and Enteric Virus Surveillance System**
PIO	**Public Information Officer**
RECIN	**Regional Early Childhood Immunization Network**
SNS	**Strategic National Stockpile**
VAERS	**Vaccine Adverse Events Reporting System**
VIS	**Vaccine Information Statement**
WEAVR	**Wisconsin Emergency Assistance Volunteer Registry**
WEM	**Wisconsin Emergency Management**
WHO	**World Health Organization**
WIR	**Wisconsin Immunization Registry**
WSLH	**Wisconsin State Laboratory of Hygiene**

GLOSSARY

Characterization	**Identification of the strain of an influenza virus such as A/Panama**
DMORT	**A coordinated effort of forensic experts and mortuary personnel to effectively handle a mass fatality disaster**
Endemic	**A disease that is continually present in a community or a region**
Epidemic	**The occurrence of a disease in a community or region clearly in excess of normal expectations**
Health Alert Network	**An Internet based program used to communicate health and emergency messages**
Influenza-like illness (ILI)	**The presence of fever $\geq$100° F, with a cough or sore throat**
JPIC	**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**
Strategic National Stockpile (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**
2-1-1- Wisconsin	**A statewide telephone communications networks for disseminating public health information**

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, an influenza pandemic is inevitable. To prepare for the next pandemic, the Wisconsin Department of Health and Family Services (DHFS), Division of Public Health (DPH), in cooperation with many state and local organizations and partners have developed this Wisconsin Pandemic Influenza Preparedness Document which provides strategies to reduce pandemic influenza-related morbidity, mortality, and social disruption in the state.

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.

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 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. Due to the prolonged nature of a pandemic influenza event, the World Health Organization (WHO) and the CDC have defined phases of the pandemic in order to facilitate coordinated plans **(Appendix A)**. Phase determination in the United States will be the responsibility of the WHO and the CDC.

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 an influenza pandemic, in the Unites States and Wisconsin.

Table 1. The estimated maximum morbidity and mortality during an influenza pandemic, nationwide and in Wisconsin. (Based on Flu-Aid software, CDC)

	United States	**Wisconsin**
Clinically ill	**250 million**	**1.9 million**
Require outpatient care	**50 million**	**1 million**
Hospitalizations	**2 million**	**22,000**
Deaths	**500, 000**	**8,000**

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.

Primary Responsibility of the 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:
   - Fact sheets on influenza, influenza vaccine, and antiviral medications.
   - 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.
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.

Organization of the Wisconsin Influenza Pandemic Document

The Wisconsin Influenza Pandemic Preparedness document as developed using the CDC Planning Guide for State and Local Officials (Draft 2.1). The document is divided into six sections: Command and Management, Surveillance, Communication, Vaccine, Emergency Response-Maintenance of Essential Health and Medical Services and Other Essential Services, and Antiviral Medications. Each section contains a brief overview, followed by the role of the DPH and the role of local health departments (**Appendix B)**. Roles of local public health should be collaborated with those of local emergency management.

The DPH role in each section of the plan includes activities in three stages: Preparation, Implementation and Evaluation. Each stage and the corresponding activities are initiated by a specific reference to a WHO Pandemic Phase **(Appendix C)**.

Each section is labeled to indicate where the activities within that section would fall under Incident/Unified Command System of the National Incident Management System.

The Wisconsin Influenza Pandemic Preparedness Document must be considered a "Work in Progress," that will be updated when new information and guidelines from the WHO or CDC are available. At any time during the stages, the activities may be changed or cancelled by the DPH.

COMMAND AND MANAGEMENT

The DPH, DHFS will lead the state response to pandemic influenza. local health departments must also develop and implement a structured parallel system of pandemic influenza preparedness in their jurisdictions with critical functions delineated that include Command and Management

Role of the DPH

1. The DPH will have responsibility for implementation of the Wisconsin Pandemic Influenza Preparedness Document.
2. The Administrator of the DPH (State Health Officer) will have primary authority for implementation of the pandemic response plan.
3. The State Epidemiologist and Chief Medical Officer for Communicable Diseases (Chief Medical Officer) will provide medical guidance to the State Health Officer during the influenza pandemic.

Role of local health departments

1. Identify 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 vaccinatioin 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. Identify administrative and medical decicion makers during the pandemic

Preparation Stage (Activities to be initiated during the following phase)

Phase 0, Inter-pandemic activities; No indications of any novel virus reported

1. The Chief Medical Officer will convene a Pandemic Influenza Preparedness Committee (PIPC) to develop a Pandemic Influenza Preparedness Document for Wisconsin. (Note: This document is a product of this activity)
2. The members of the PIPC will advise the Chief Medical Officer on issues related to their specific areas of expertise for implementation of the state's public health response to pandemic influenza. Members of the PIPC include:
   - the Physician Supervisor of the Communicable Disease Epidemiology Section (CDES), Bureau of Communicable Diseases (BCD)
   - the Influenza Surveillance Coordinator
   - the Director, BCD

- the Director, Communicable Disease Division, Wisconsin State Laboratory of Hygiene (WSLH)
- the Coordinator of the Laboratory Response Network, WSLH
- the Director, Wisconsin Immunization Program
- the Emergency Response Coordinator, DPH
- a family medicine physician consultant to the BCD
- the risk communication specialist, Bureau of Environmental Health (BEH), DPH

3. Additional staff providing advice and support to the PIPC includes:
   - the State Public Health Veterinarian, BCD
   - the Physician Epidemiologist, BCD
   - the Bioterrorism Surveillance Epidemiologist, BCD
   - federal immunization advisors assigned to the BCD
   - the Infection Control Epidemiologist, BCD
   - the Bioterrorism Program Director, DPH
   - the Hospital Bioterrorism Coordinator, DPH
   - the Coordinator, Strategic National Stockpile (SNS), DPH
   - the Public Affairs Director, WSLH
   - the Epidemic Intelligence Service (EIS) Officer assigned to the BCD
   - the Invasive Bacteria Disease Surveillance Coordinator, BCD
4. Responsibilities of the PIPC include:
   - develop the DHFS response to pandemic influenza
   - assist local health departments to prepare for an influenza pandemic
5. The PIPC will review the Wisconsin Pandemic Influenza Preparation document at least annually and update the document as needed. The Influenza Surveillance Coordinator will be responsible for the review and update of the document.
6. The Chief Medical Officer will designate a Clinical Management Team that will include:
   - the Chief Medical Officer
   - the Physician Supervisor, CDES, BCD
   - the State Influenza Surveillance Coordinator
   - the Director, Wisconsin Immunization Program, BCD
   - the Physician Epidemiologist, BCD
   - the federal immunization advisors assigned to the BCD
   - the Bioterrorism Surveillance Epidemiologist, BCD
   - the Infection Control Epidemiologist, BCD
   - the EIS Officer assigned to the BCD
   - the risk communications specialist, BEH
7. From within the DPH, public health advisors that may be used as technical advisors to the Clinical Management Team include:
   - the State Public Health Veterinarian, BCD
   - the Bioterrorism Program Director, DPH
   - the Hospital Public Health Emergency Coordinator, DPH
   - the Coordinator of the SNS
   - the Director, BCD

- the Director, BEH
- the Director, Communicable Disease Division, WSLH
- the Coordinator of the Laboratory Response Network, WSLH
- the Medical Director and Chief, Wisconsin AIDS/HIV Program, BCD
- the Chief Medical Officer for Occupational and Environmental Health, DPH
- the Chief Medical Officer for Chronic Diseases, DPH
- the Chief Medical Officer for Maternal Child and Health, DPH
- the Director, Emergency Medical Services, DPH
- the Director, Bureau of Occupational Health
- the Directors, DPH Regional Offices

8. The Clinical Management Team may request the assistance of technical consultants from outside the DPH to assist in developing health-related recommendations. Technical consultants may include:
   - bioethicists
   - infectious disease physicians
   - primary care physicians
   - pulmonary physicians
   - family medicine physicians
   - emergency medical service representatives
   - medical examiners and coroners
   - experts in numerous other related fields
9. The Director, BCD will be assigned as the Pandemic Administrative Coordinator during the influenza pandemic interval

<u>Implementation Stage</u> (Activities to be initiated during the following phase)

Phase 1: Confirmation of onset of pandemic

1. Pursuant to state statute 250.02 (1), the Secretary, DHFS, assigns the State Health Officer as the leader of the state's public health response to pandemic influenza.
2. The Chief Medical Officer provides medical guidance to the State Health Officer regarding the state's public health response to pandemic influenza.
3. In the absence of the Chief Medical Officer, the Physician Supervisor, CDES, BCD, will provide medical guidance to the State Health Officer.
4. The Pandemic Administrative Coordinator will:
   - monitor the assigned responsibilities of staff
   - serve as liaison with the State Health Officer, the Secretary of the DHFS and the Director of Public Affairs, DHFS
   - communication with other Bureaus within the DPH (initially) daily, then as needed regarding the status of the influenza pandemic and the DPH response
   - provide administrative support during the pandemic response
   - coordinate program support during the pandemic response
   - coordinate DPH response activities with those of the local health departments

- assess the availability of DPH and WSLH personnel available to assist in the pandemic response **(Appendix D)**
- responsibility to decide if use of alternate facilities during the influenza pandemic will benefit the pandemic influenza response **(Appendix E)**
- work with the Chief Medical Officer to arrange for additional facilities to use for the pandemic response as needed
- work with the Chief Medical Officer coordinating DPH response activities with other state and federal agencies, as appropriate **(Appendix F)**

5. If the Chief Medical Officer determines the pandemic response requires more assistance than the assigned staff, the Pandemic Administrative Coordinator will contact other Bureaus within the DPH for assistance.
   - Bureau Directors within DPH will determine what priority activities within their bureau must be continued and will reassign other available staff to assist in the pandemic response.
   - The Chief Medical Officer, Pandemic Administrative Coordinator, and the DPH Clinical Management Team will be responsible for directing the work of reassigned DPH employees.
6. In consultation with Wisconsin Emergency Management (WEM) and members of the Clinical Management Team, the Chief Medical Officer will help determine the need for activation and, if activated, when closure of the state Emergency Operations Center (EOC) is appropriate. Topics of discussion will include:
   - full or partial activation of the State EOC
   - staffing of the EOC when activated
   - identification and notification of additional staff to assist in the response to the pandemic
7. With guidance from the Chief Medical Officer, the State Health Officer will determine when to advise the DHFS Secretary to recommend the Governor declare a "State of Emergency in Wisconsin" in response to the influenza pandemic.
8. The Clinical Management Team will meet as often as needed to guide the implementation of Wisconsin's pandemic influenza response. Responsibilities of the Clinical Management Team include:
   - to monitor the state's daily response to pandemic influenza
   - assist the Chief Medical Officer with medical decision and response activities
   - developing recommendations on health issues related to pandemic influenza
   - update the Pandemic Administrative Coordinator and risk communication staff
9. The Chief Medical Officer will define specific responsibilities for each member of the Clinical Management Team to include:
   - the Chief Medical Officer:
     - responsibility for medical guidance to the State Health Officer
   - the Physician Supervisor of the CDES:
     - development and interpretation of clinical guidelines
     - creating messages and guidance for clinicians
   - the Influenza Surveillance Coordinator, BCD:
     - personal communication with the CDC
     - monitoring influenza surveillance activities

- the Director, Wisconsin Immunization Program, BCD:
  - vaccine delivery, storage and transportation
- the Physician Epidemiologist, BCD:
  - development and interpretation of clinical guidelines
  - creating messages and guidance for clinicians
- the federal immunization advisors assigned to the BCD:
  - monitoring CDC and WHO websites for current information
  - vaccine delivery, storage and transportation
- the Bioterrorism Surveillance Epidemiologist, BCD:
  - monitoring surveillance activities with the Influenza Surveillance Coordinator
- the Infection Control Epidemiologist, BCD:
  - infection control, isolation and the use of personal protective equipment (PPE)
- The EIS Officer assigned to the BCD:
  - duties as assigned by the Chief Medical Officer

10. All bureaus within the DPH will assume a supportive role, working with BCD in ways appropriate to their program authority and responsibilities.
11. The WSLH will provide testing and technical support to the DPH pandemic response, coordinate the response of the Wisconsin Laboratory Response Network and provide guidance to clinical laboratories statewide.
12. The Chief Medical Officer, the Pandemic Administrative Coordinator and the Director of the Communicable Disease Division, WSLH will monitor staffing needs at the WSLH and within the BCD, and reassign staff or request additional assistance as necessary.

<u>Evaluation Stage</u> (Activity to be initiated during the following phase)

Phase 5: End of the pandemic

The PIPC and the Clinical Management Team will jointly convene to evaluate the DPH pandemic response.

SURVEILLANCE (ICS - Operations)

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 Wisconsin and to describe the epidemiologic features of novel virus circulation in Wisconsin. The following delineates relevant issues and roles related to surveillance during an influenza pandemic.

Role of the DPH

1. Surveillance for pandemic influenza is primarily a state function.
2. The BCD, will conduct syndromic 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.
3. The BCD, in close partnership with the WSLH will have primary responsibility for surveillance of novel influenza viruses and influenza activity within the state.
4. To monitor the spread of the novel virus the BCD, in close partnership with the WSLH will continue enhanced laboratory surveillance for novel influenza viruses particularly in individuals with travel histories to areas with endemic cases.

Role of local health departments

1. Support state surveillance activites including syndromic surveillance, 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 DPH informed of all surveillance activities.
6. Monitor influenza activity among different population groups within their jurisdiction.

Preparation Stage (Activities to be initiated during the following phase)

Phase 0: Inter-pandemic activities; No indications of any novel virus reported

1. The BCD in cooperation with the WSLH will maintain Wisconsin involvement in national influenza surveillance coordinated by the CDC by assuming primary responsibility for implementing virologic, morbidity, and mortality surveillance components and compliance with future recommendations for surveillance enhancement.. Current national influenza surveillance activities include:
   - WHO collaborating laboratories (including two in Wisconsin) and National Respiratory and Enteric Virus Surveillance System (NREVSS) laboratories (including three in Wisconsin) report the number and type of influenza viruses isolated each week, and send representative and unusual viral specimens to CDC for comparative antigenic and genetic analysis.
   - State and territorial epidemiologists report the level of influenza activity in their states to CDC weekly as "widespread," "regional," "local activity" "sporadic," or "no activity".
   - A voluntary national network of sentinel clinicians report the number of patients

presenting with ILI and the total number of patient visits by age group to CDC each week via telephone or the Internet.

- Vital Statistics Offices of 122 of the largest U.S. cities (including Milwaukee, Wisconsin) report on a weekly basis, total deaths and deaths associated with influenza or pneumonia.

2. Maintain current Wisconsin influenza surveillance activities that include:
   - Virologic Surveillance
     - Voluntary submission of influenza virus isolates by clinical virology laboratories to the WSLH or the City of Milwaukee Health Department Public Health Laboratories (MHDPHL) for viral subtyping. The WSLH provides specimen collection and transport supplies, instructions for fee-exempt testing
     - The WSLH sends selected influenza isolates submitted from clinical virology laboratories and the MHDPHL to the CDC for antigenic analysis. Submission of respiratory specimens to the WSLH from providers in the state that participate in the sentinel provider specimen submitter network
     - On a year-round basis, voluntary reporting by virology laboratories that participate in the Wisconsin Laboratory Information Network (LIN) of positive test results and total number of respiratory virus specimens tested.
     - On a seasonal basis voluntary reporting to the WSLH of the total number and results of rapid tests performed by influenza rapid test sites and submission of selected specimens for virus culture to the WSLH or other Wisconsin virology laboratories.
   - Syndromic Surveillance
     - On a year-round basis, voluntary reporting by a statewide network of sentinel clinicians of the number of patients presenting with ILI and the total number of patient visits by age group each week. The ratio of sentinel clinicians to total Wisconsin population (currently 1:61,000) will continue to exceed the CDC recommended ratio of 1:250,000 total population.
     - Voluntary reporting of ILI outbreaks in long-term care facilities to the BCD
     - Voluntary reporting of ILI outbreaks in schools and other congregate settings to the BCD
     - Distribution of influenza surveillance data to laboratories, local health departments, healthcare providers, infection control professionals (ICPs) and others by BCD and the WSLH
     - Through CDC Epi-X and other communications methods maintain a communication networks with epidemiologists and public health laboratories to share information regarding the detection and circulation of novel influenza viruses
   - Continued DPH and WSLH collaboration with the Wisconsin Veterinary Diagnostic Laboratory and the University of Wisconsin School of Veterinary Medicine regarding zoonotic cases of influenza, especially among avian and swine populations.
3. Proposed improvements to influenza surveillance in Wisconsin include:
   - Assess the feasibility and utility of collection of hospital admission or census data and emergency department/urgent care center census and diagnosis data.
   - Enhance the sentinel clinician network for reporting and specimen submission to improve geographic distribution statewide
   - Develop and assess the efficacy of a sentinel school surveillance system using weekly

student absentee rates from selected schools in the state

- Develop a pediatric sentinel influenza surveillance, to monitor ILI among pediatric patients in Wisconsin
- Develop educational materials about influenza and pandemic influenza surveillance procedures for healthcare providers, laboratories and the public (see Communications Section for distribution plans).

<u>Implementation Stage</u> (Activities to be initiated during the following phase)

Phase 0, Preparedness Level 2: Human infection confirmed

1. Continue Wisconsin influenza surveillance activities as described in Preparation Stage
2. Update public health providers of the region(s) the novel influenza virus is detected.
3. Implement enhanced laboratory surveillance to include the following:
   - 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
   - one respiratory specimen should be submitted directly to the WSLH to test for the novel influenza virus. The submitter may send a duplicate specimen to their usual laboratory provider for detection of influenza viruses
   - use and complete the WSLH Laboratory Submission Form **(Appendix H)** to collect follow-up patient information during and following an influenza pandemic
   - during periods of low influenza activity, laboratories and rapid influenza test sites should forward to the WSLH:
     - specimens that are rapid test positive for influenza for confirmation of test results
     - influenza isolates for subtyping and subsequent characterization at CDC
4. Enhanced influenza surveillance will continue until the Chief Medical Officer and the Clinical Management Team 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.

<u>Evaluation Stage</u> (Activities to be initiated during the following phase)

Phase 5, End of the Pandemic

DPH will participate in the evaluation of pandemic response as determined by the PIPC.

EMERGENCY RESPONSE: MAINTENANCE OF ESSENTIAL HEALTH AND MEDICAL SERVICES AND OTHER ESSENTIAL SERVICES (ICS - Planning)

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

Role of the DPH

1. Assist hospitals in the development of a public health emergency plan
2. Assist local health departments in the development of mass fatality plans for facility-based deaths (hospitals, nursing homes, mental health units etc.).
3. Assist local health departments, coroners and medical examiners in the development of a mass fatality plan for non-facility based deaths
4. Participate, if requested, in local mass fatality disaster exercises.
5. Maintain a statewide inventory of resources including, medical facilities, supplies and services that may be used during the influenza pandemic including universal security paper for issuing certified death certificates
6. Responsibility to assist coroners, medical directors, funeral directors and vital records registrars with the development of a local mass fatality disaster plan
7. Assist local registrars in developing plans for filing and issuing death certificates in a mass fatality situation
8. If deemed necessary, pursuant to state statute 979.10 (1)(a), advise local health departments, coroners and medical examiners of a waiver of the 48-hour hold before a cremation can occur
9. If deemed necessary, pursuant to state statute 979.10 (1)(a), advise local health departments, coroners and medical examiners of the need for mandatory cremation as a method of disposition
10. Assure local registrars have development of plans for filing and issuing death certificates in a mass fatality situation
11. Develop and implement a state hospital public health emergency document

Role of local health departments

1. Have access to an inventory of emergency medical personnel and supplies.
2. Local health departments in consultation with local emergency management should develop a local Emergency Operations Plan (EOP) including plans for pandemic influenza.
3. In cooperation with local emergency management, develop a mass fatality disaster plan for facility-based deaths. These deaths would not fall within the jurisdiction of the coroner or medical examiner.
4. In cooperation with coroners and medical examiners, develop a mass fatality disaster plan for non-facility based deaths.
5. Should it become necessary, notify the State Registrar of the likelihood of a local mass fatality situation.
6. Participate, if requested, in mass fatality disaster exercises.
7. Be advised when hospital public health emergency plans are activated.
8. Report to DPH during the pandemic, no less than weekly, the status of emergency response implementation within their jurisdiction.
9. In cooperation with local emergency management, identify essential services within each jurisdiction and develop a local plan to assure as little interruption of theses services as possible. Services may include, local agriculture and farms, home healthcare and delivery of food to those in need.

Preparation Stage (Activities to be initiated during the following phase)

Phase 0, Inter-pandemic activities: No indications of any novel virus reported

1. In conjunction with local hospital public health emergency plans, the DPH, BCD will maintain an inventory of voluntary healthcare personnel through the Wisconsin Emergency Assistance Volunteer Registry (WEAVR) that includes:
   - physicians
   - physician assistants
   - advanced practice registered nurses (APRN)
   - pharmacists
   - registered nurses and licensed practical nurses,
   - medical assistants, and
   - other persons who may be trained in the event of an emergency to render care
2. The DPH, BCD will maintain a credentials database of all licensed health professionals in Wisconsin including the American Medical Association (AMA) profile for physicians
3. The DPH will maintain an inventory or appropriate listing of the following items within their jurisdiction:
   - Inventories of:
     - bed capacity (hospital and long-term care)
     - ICU/CCU capacity
     - ventilators
   - negative pressure air isolation rooms
   - sources of medical supplies and other personal protective equipment (PPE)
   - a listing of contingency medical facilities (within the jurisdiction)

- mortuary/funeral services
- social services/ mental health services/ faith services

4. The Division of Disability and Elder Services (DDES), Bureau of Mental Health and Substance Abuse Services (BMHSAS) will develop Wisconsin's Emergency Human Services Response Plan. The purpose of Wisconsin's Emergency Human Services Response Plan is to coordinate state resources to respond to the human service needs caused by a disaster, bioterrorism event, or other public health threat or emergency address. The plan specifically addresses the human services implications of disaster, including (but not limited to):
   - needs of people residing in publicly funded facilities
   - 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
5. The DPH, BCD will develop protocol for physician offices to use during an influenza pandemic
6. The Hospital Public Health Emergency Coordinator will develop a state Hospital Public Health Emergency Plan. The purpose of the Hospital Public Health Emergency 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.
7. The DPH, BCD will assist Wisconsin hospitals in developing 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 credentialling 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
8. Mass Fatality Management: The Assistant State Registrar from the Bureau of Health Information, Division of Healthcare Financing (DHCF), will have responsibility to assist coroners, medical directors, funeral directors and vital records registrars with the following:
   - development of a local mass fatality disaster plan.
   - development of plans for filing and issuing death certificates in a mass fatality situation.

- participation, if requested, in mass fatality disaster exercises.

<u>Implementation Stage</u> (Activities to be initiated during the following phase)

Phase 0, Preparedness Level 3: Human transmission confirmed (North America)

1. Should the need for additional medical personnel be necessary, local EOC's will notify the DPH and be provided access to voluntary healthcare personnel in their area through WEAVR.
2. Should the need for additional health and medical supplies, equipment or services be necessary, local EOC's will notify the DPH. DPH will use the inventories and lists referenced in the Preparation Stage (p.13) to assist local health departments and emergency management staff.
3. Using systems identified in the communications preparation stage of this document (p.18), DPH 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.
4. The local health departments will communicate with DPH regional offices regarding the activation of hospital public health emergency preparedness plans in their jurisdiction.
5. Within DPH, BCD
   - the Bioterrorism Consortium Coordinator will be responsible for receiving updates from the DPH regional offices and keeping the Chief Medical Officer and Clinical Management Team informed of the pandemic response.
   - in the absence of the Bioterrorism Consortium Coordinator, the Hospital Public Health Emergency Coordinator will assume responsibility for receiving updates and keeping the Chief Medical Officer and Clinical Management Team informed of the pandemic response.
6. The updates from the regional offices will include, at minimum:
   - the status of inventories and services maintained within each consortium
   - census reports from each hospital in the consortium
   - reports from each of the hospitals on the activation of their public health emergency preparedness plan
7. The DPH will receive updates, no less than weekly, from WEM.
   - The updates from WEM will include the status of implementation of state and local emergency plans and reports from local EOC's on the affect of the pandemic on essential services within their jurisdiction.
   - The DHFS Emergency Management Coordinator will be responsible for receiving updates and keeping the Chief Medical Officer and Clinical Management Team informed of the influenza pandemic response.
   - In the absence of the DHFS Emergency Management Coordinator, the Bioterrorism Program Manager will be responsible for receiving updates and keeping the Chief Medical Officer and Clinical Management Team informed of the pandemic response.
8. If the number of fatalities exceeds the capacity of a county's resources, the Coroner/Medical Examiners Office may request assistance from state or national resources such as the Disaster Mortuary Operational Teams (DMORT), if available depending on the incidence of pandemic influenza in the United States, to provide additional supplies, equipment and staff.

- The Assistant State Registrar will be notified of the request for additional resources made by the local coroner or medical examiner.
- The Assistant State Registrar will notify the Chief Medical Officer and the Clinical Management Team of any requests for assistance or resources from DMORT.

Evaluation Stage (Activities to be completed during the following phase)

Phase 5, End of the Pandemic

DPH will participate in the evaluation of pandemic response as determined by the PIPC.

COMMUNICATION (ICS – Operations)

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

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

Role of the DPH

1. Maintain a system to effectively communicate with public health officials, healthcare professionals and other target audiences.
2. Establish lines of communication and define DPH staff roles and responsibilities clearly to avoid confusion and facilitate the best possible communication with partners.
3. Regularly distribute informational updates to all appropriate partners.
4. Develop a list of media spokespersons from each state agency and the WSLH.
5. Coordinate with Wisconsin Emergency Management to provide information to the media via the state Emergency Operations Center/Joint Public Information Center when activated.
6. Regularly update and maintain the Department of Health and Family Services website with information.
7. Utilize the Wisconsin Health Alert Network to notify health partners of new developments, share treatment protocols and other relevant information.
8. Translate written information into Spanish and Hmong for the public as needed

Role of local health departments

1. Develop a communication plan in conjunction with local emergency management coordinators and hospitals in their area.
2. Maintain media relations 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 of key health department staff
5. Develop a list of local media contact names and numbers and methodology to quickly send them information
6. Develop an internal plans on how to distribute information passed on from DPH to appropriate LHD staff
7. Establish a local information hotline and develop 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 LHD 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. LHD officers should identify a primary spokesperson and backups in conjunction with local emergency management and local elected officials

<u>Preparation Stage</u> (Activities to be initiated during the following phase)

Phase 0: Inter-pandemic activities; No indications of any novel virus reported

1. Risk communication staff will identify appropriate contacts to be notified of pandemic influenza activity, to include:
   - All state agencies through Public Information Officers (PIO's) or other designated contacts
   - All healthcare agencies (hospitals, long term care facilities, health maintenance organizations)
   - Local health departments
   - Public health consortia
   - Other appropriate organizations (*e.g.,* Red Cross, CDC, FDA)
   - Infection Control Professionals (ICP's)
   - Media
   - Public health agencies of border states
   - Wisconsin Emergency Management (WEM)
   - The WSLH
2. Risk communication staff will consult with the BCD to identify and maintain a list of target audiences for messages that pertain to pandemic influenza.
3. Risk communication staff will consult with the BCD to develop and maintain messages appropriate to specific audiences. A separate "package" of issues and messages will be developed for each division, focusing on those types of emergencies and disasters for which a particular division will have lead responsibility. Information may include:
   - vaccine development and supply
   - isolation and quarantine recommendations
   - antiviral use
   - prevention and infection control methods
   - contact investigation
4. Risk communication staff will consult with the BCD, to develop a disease fact sheet specific to pandemic influenza.
5. Risk communications staff will develop a list of media spokespersons from each state agency and the WSLH.
6. In consultation with the DHFS Director of Public Affairs, communication staff will maintain a system to effectively communicate with public health officials, healthcare professionals and other targeted audiences that will include:
   - securing venues for holding news conferences, media briefings distance learning and teleconferencing opportunities and other communication-related activities.
   - information distribution by:

- the Health Alert Network (HAN)
- Blast fax emergency messaging
- the State Medical Society's messaging system for their physician members
- DPH e-mail lists of targeted specialty groups
- the Wisconsin Health & Hospital Association's e-mail alert system
- 2-1-1- Wisconsin
- DPH teleconferencing and web broadcast system

<u>Implementation Stage</u> (Activities to be initiated during the following phase)

Phase 0, Preparedness Level 2: Human infection confirmed

Risk communication staff in cooperation with the Chief Medical Officer and the Influenza Surveillance Coordinator will issue an update via e-mail, fax and the HAN, weekly and as needed, to the following:

- ICP's
- local health departments
- WEM
- State Medical Society
- tribal health centers
- influenza sentinel clinicians

(Activities to be initiated during the following phase)

Phase 1: Confirmation of onset of pandemic influenza

1. Using the communication systems identified in section #6 of the Preparation Stage (p.18), risk communications staff will update appropriate agencies at least weekly and as needed regarding any new information regarding the novel virus and it's impact.
2. When the State EOC <u>is</u> activated, the EOC's Joint Public Information Center (JPIC) will be activated
   - Initial state-level media briefings will be held at the EOC or at the State Capitol, depending on the Governor's involvement
   - Assigned DPH staff is divided into teams focusing on a specific audience/communication method. Functions of the communication teams will include:
     - clinician communication
     - message content and clearance
     - government and media communications
     - website and hotline management
     - public health partner communication
     - identification of spokespersons
     - communication leadership

    - communication with laboratories
  - Team leaders will meet twice daily to share information and determine communication priorities.
  - Team leaders will report to the Emergency Communications Coordinator at the EOC and the DHFS Public Affairs Office.
3. When the EOC is not activated
  - Assigned DPH staff will be divided into teams focusing on a specific audience/communication method.
  - Team leaders will be public health educators and risk communication specialists from the DPH.
  - Team leaders will meet daily to share information and determine communication priorities.
  - Team leaders will report to the DHFS Public Information Office.

<u>Evaluation Stage</u> (Activity to be initiated during the following phase)

Phase 5, End of the Pandemic

DPH will participate in the evaluation of pandemic response as determined by the PIPC.

VACCINE (ICS – Operations)

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 70-80 million doses of vaccine each year.

Wisconsin maintains relatively high levels of influenza vaccination among persons age $\geq$ 65 years old. 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

1. 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.
2. Once confirmation of the pandemic has been declared, LHDs will have one to six months to prepare for vaccine delivery and administration.
3. Two doses of influenza vaccine, administered four weeks apart will be needed to develop full immunity to the novel influenza virus.
4. 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.
5. If federal resources are not available to purchase the remaining 80% of needed vaccine, the DHFS will seek the necessary funds to purchase the vaccine for Wisconsin residents.
6. 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.

Role of the DPH

1. To distribute vaccine and supplies, when available, to local health departments using SNS infrastructure for storage and transport of vaccine and supplies.
2. Consult with WEM to coordinate assistance in the storage security, and transportation of vaccine and supplies, as appropriate.
3. Implement vaccination of those government officials and state and federal personnel deemed as a priority to maintain essential services.
4. Monitor adverse reactions to influenza vaccine through the Vaccine Adverse Events Reporting System (VAERS).

5. Distribution of pneumococcal vaccine

Role of local health departments

1. Develop, practice and implement a mass-vaacination 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
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 it becomes available

Preparation Stage (Activities to be initiated during the following phase)

Phase 0: Inter-pandemic activities: No indications of any novel virus reported

The DPH will:

1. Use the 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.
2. 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.
3. Provide information regarding the mechanism for ordering influenza vaccine from the DPH.
4. Be involved in the provision of clinic supplies to local health departments.
5. In cooperation with the CDC, the DPH will develop a system for the prioritization of vaccine, to be used statewide.
6. Determine method of vaccine delivery: Identify state/local responsibility for stages of delivery, transport and security.
7. Ensure adequate vaccine storage facilities using SNS infrastructure.
8. Ensure security necessary for vaccine storage and mass vaccination clinic locations.
9. 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.
10. Use an electronic database that will record necessary demographic and vaccine information, primarily the Wisconsin Immunization Registry (WIR) or the Regional Early Childhood Immunization Network (RECIN). 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.
11. Develop and distribute a packet of written materials to LHDs, 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.

Numbers 12-17 refer to the mass clinic template located in the State Public Health Emergency Plan (PHEP).

12. Develop and distribute a mass-clinic template for LHDs regarding vaccine distribution, administration, documentation and security, including a prototype set of materials to distribute to LHDs 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
13. The DPH will explore the feasibility of administering the vaccine with needle-free injection systems, i.e., multi-dose jet injection apparatus and pre-filled syringes when available
14. The DPH will determine a prioritization scheme to vaccinate those State Government officials and personnel deemed as a priority to maintain essential services
15. With the assumption that only 20% of total vaccine needed will be initially available to begin vaccination, the Chief Medical Officer and Clinical Management Team will finalize a scheme to prioritize those groups to whom vaccine will be directed, to maintain health and critical services in Wisconsin.
16. No more than 25% of persons targeted may be in administrative positions. Recommendations for vaccination prioritization will be based on current CDC guidelines and consultation with experts, including a bioethicist. The scheme, in order of priority may include:
    - Persons necessary to provide legal authority to initiate activities not governed by current state laws including:
        - The Governor of Wisconsin
        - The Lieutenant Governor and Secretary of State as individuals identified by statute to take charge of state functions in the event of the loss or incapacitation of the Governor .
    - Persons essential to maintain basic community infrastructure contingent on the epidemiology of the pandemic and the quantity of influenza vaccine available, include:
        - Staging: Category A Group and their household members
            - Licensed healthcare workers including physicians, physician assistants, nurses, mental health professionals
            - State public health officials including the Chief Medical Officer and State Health Officer, members of the Clinical Management Team
            - First responders (Fire, Police, EMT's)
            - Medical laboratory workers

- Emergency management personnel
- National Guard members that have been called into state service by the governor
- Long term care facility staff
- Utility field workers (gas, electric, water, sewer, etc.),
- Communications personnel
- Fuel suppliers
- Food suppliers
- Waste management workers (general and medical)
- Public transportation drivers
- Air travel personnel (pilots, air traffic controllers, etc.)
- Corrections workers
- Morticians/Coroners/Medical Examiners
- Pharmacists
- Red Cross field workers
- U.S. Postal Service workers
- Contracted persons involved in the transportation of vaccine

- Staging: Category B Group
  - Day care providers
  - Teachers
  - Clergy
  - Other non-licensed mental health professionals

17. Following vaccination of essential state personnel, local health departments will activate appropriate plans to provide for the vaccination of the general public.

<u>Implementation Stage</u> (Activities to be initiated during the following phase)

Phase 1: Confirmation of the Pandemic

The DPH will:

1. Distribute vaccine, when available, supplies (e.g., needles, syringes) necessary for influenza vaccine administration through a centralized distribution system to local health departments using SNS infrastructure for storage and transport of vaccine and supplies.
2. Distribute a specified number of doses of vaccine and medical supplies to local health departments based on population and distribution of prioritized essential services personnel. Supplies may be shipped separately from vaccine.
3. Consult with WEM to coordinate assistance in the storage security, and transportation of vaccine and supplies, as appropriate.
4. Implement vaccination of those government officials and state and federal personnel deemed as a priority to maintain essential services.
5. Monitor adverse reactions to influenza vaccine through the Vaccine Adverse Events Reporting System (VAERS).

6. Distribute pneumococcal vaccine for high-risk individuals to be administered by healthcare providers, home health agencies, the Visiting Nurse Association, LHDs and others.

<u>Evaluation Stage</u> (Activities to be initiated during the following phase)

Phase 5. End of Pandemic

DPH will participate in the evaluation of pandemic response as determined by the PIPC.

ANTIVIRAL MEDICATIONS (ICS – Planning)

Four antiviral agents are currently available for prophylaxis or treatment of influenza A. Amantadine 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. Approval of additional antivirals by the FDA is expected. Until assessments of current and newly developed antivirals have been completed, antivirals will be included in the Wisconsin Pandemic Influenza Preparedness Document 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 neurologic signs and symptoms.

Role of the DPH

Assess the feasibility of providing an interim stockpile of antiviral medications within the state

Role of local health departments

Support state stockpiles and the delivery of antiviral medication.

Preparation Stage (Activities to be initiated during the following phase)

Phase 0: Inter-pandemic activities: No indications of any novel virus reported

The DPH will:

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:
   - Establish the location of the antiviral stockpiles, likely in central hospitals located in various regions of the state

- Identification of essential medical and public service entities that would benefit from short term antiviral medication
- Identification of individuals responsible for the storage and distribution of antiviral medication in their region
- As specified in state statute 250.042 (2) (a) , purchase of antiviral medication from private healthcare facilities, drug companies or other entities

2. The Clinical Management Team will be responsible for developing criteria for use of antiviral medication from state stockpiles. This criteria will include:
   - Estimates of the amount of antiviral medication needed to maintain essential services
   - Methods of distribution of antiviral medication
   - Maintain an interim stockpile of antivirals
   - Assist local health departments with developing lists of pharmaceutical outlets
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

<u>Implementation Stage</u> (Activities to be initiated during the following phase)

Phase 1: Confirmation of the Pandemic

The DPH will:

1. Purchase antiviral medication for the interim Wisconsin stockpile.
2. The Chief Medical Officer, with consultation from the Clinical Management Team, will provide guidance to the State Health Officer regarding the distribution of antivirals to individuals employed in essential services.

<u>Evaluation Stage</u> (Activities during the following phase)

Phase 5, End of the Pandemic

DPH will participate in the evaluation of pandemic response as determined by the PIPC.

WHO PANDEMIC PHASE IDENTIFICATION

Pandemic Phase Identification	Description
Phase 0 Inter-pandemic activities	No indications of any novel virus have been reported
Phase 0, Preparedness Level 1 Appearance of a new influenza strain in a human case	Isolation of a novel virus subtype without clear evidence of spread
Phase 0, Preparedness Level 2 Human infection confirmed	Confirmation of two or more human infections with the novel virus subtype, but the ability for continued person-to-person spread is questionable
Phase 0, Preparedness Level 3 Human transmission confirmed	Confirmation of person-to-person spread of the novel virus
Phase 1 Confirmation of the onset of pandemic influenza	Confirmation of novel virus causing outbreaks in at least one country and has spread to other countries.
Phase 2 Regional and multi regional epidemics	Outbreaks and epidemics occur in multiple countries and continues to spread across the world
Phase 3 End of first pandemic wave	The increase in outbreak activity in countries initially affected by the novel virus has stopped or reversed, but outbreaks continue elsewhere
Phase 4 Second or later waves of the pandemic	A second wave of outbreaks caused by the novel virus is expected to occur 3-9 months after the initial epidemic wave. Additional waves may also occur
Phase 5 End of the pandemic	Pandemic has ended, likely 2-3 years after it began.

ROLES OF LOCAL HEALTH DEPARTMENTS DURING AN INFLUENZA PANDEMIC

Command and Management

1. Identify who willo 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 vaccinatioin 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 activites 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 DPH informed of all surveillance activities
6. Monitor influenza activity among different population groups

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 theses 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 LHD 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 LHD 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. LHD 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 LHD 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-vaacination 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.

PANDEMIC INFLUENZA
INITIATION OF STAGES BY PANDEMIC PHASE

	Command and Management	Surveillance	Communications	Vaccine	Antiviral	Emergency Medical/Services
Phase 0 Inter-pandemic activities						
Phase 0, Preparedness Level 1 Appearance of a new influenza strain in a human case						
Phase 0, Preparedness Level 2 Human infection confirmed						
Phase 0, Preparedness Level 3 Human transmission confirmed						International North America
Phase 1 Confirmation of the onset of pandemic influenza						
Phase 2 Regional and multi regional epidemics						
Phase 3 End of first pandemic wave						
Phase 4 Second or later waves of the pandemic						
Phase 5 End of the pandemic						

Preparation Stage Implementation Stage Evaluation Stage

AVAILABLE PERSONNEL AND RESOURCES WITHIN THE DHFS, DPH AND WSLH TO ASSIST IN THE INFLUENZA PANDEMIC RESPONSE

Personnel

Bureau of Communicable Diseases

- Epidemiologists experienced in disease investigations
- Physicians
- Veterinarians
- Infection control practitioners
- Public health nurses, and
- Public health educators
- Clerical and support staff

Bureau of Environmental Health

- Registered sanitarians
- Industrial hygienists
- Registered nurses
- Toxicologists

Bureau of Chronic Disease Prevention and Health Promotion

- Public health nurses
- Epidemiologists
- Physicians
- Public health educators

Wisconsin State Laboratory of Hygiene (WSLH)

- Microbiologists
- Virologists
- Laboratory technicians, and
- Other laboratory staff
- Laboratory testing facilities for infectious agents, to provide assessment data as part of a response to a novel influenza virus.

Resources and Inventory Lists

Division of Healthcare Financing, Bureau of Health Information (BHI)

- Physicians by medical specialties
- Morticians,
- Crematories
- Medical examiners/coroners,
- Casket manufacturers, embalming supply companies, and
- Stress counselors

Bureau of Communicable Diseases (BCD)

- Infection control practitioners
- Local health department, and regional office contact lists
- Tribal health centers

- Hospital 24/7 contacts

Office of Operations

- Public Health Consortia list

Bureau of Environmental Health

- State and local environmental health contacts
- Public water supply contacts

Wisconsin State Laboratory of Hygiene (WSLH)

- Clinical and local public health laboratories
- Contacts at the Wisconsin Veterinary Diagnostic Laboratory and UW Madison Veterinary School
- Laboratory directors/managers, and essential laboratory staff
- Specimen collection and transport arrangements and information management

Division of Disability and Elder Services, Bureau of Quality Assurance (BQA)

- Licensed and certified healthcare facilities

ALTERNATE FACILITIES IDENTIFIED TO SUPPORT THE INFLUENZA PANDEMIC RESPONSE

1. Regional offices of the Wisconsin Department of Health and Family Services located in Milwaukee, Madison, Eau Claire, Green Bay and Rhinelander

2. Wisconsin State Office Building, Level B-3 conference room, 1 West Wilson Street, Madison, WI.

3. Wisconsin Emergency Operations Center (EOC), Department of Military Affairs, 2400 Wright Street, Madison, WI

4. Offsite-backup EOC, Mendota Mental Health Center, Building 3, Madison, WI

5. Local EOC's

6. Onsite or local facilities made available by hospitals and local health departments or public health consortia in Wisconsin

COORDINATION OF THE DPH PANDEMIC INFLUENZA PREPAREDNESS WITH OTHER STATE AND FEDERAL AGENCIES

State Agencies

Departments within State service

- The Department of Administration (DOA)
- The Department of Agriculture, Trade and Consumer Protection (DATCP)
- The Department of Public Instruction (DPI)
- The Department of Military Affairs (DMA)
- The Department of Justice (DOJ)
- The Department of Workforce Development (DWD)
- The Department of Natural Resources (DNR)

Divisions within the Department of Health and Family Services

- The Division of Disability and Elder Services
- The Division of Children and Family Services (DCFS)
- The Division of Healthcare Financing

Bureaus within the Division of Public Health:

- The Bureau of Emergency Services
- The Bureau of Environmental Health
- The Bureau of Chronic Disease
- The Bureau of Maternal Child Health
- The Bureau of Health Information

Federal Agencies

- The Federal Emergency Management Agency (FEMA)
- The Food and Drug Administration (FDA)
- The Centers for Disease Control and Prevention (CDC)
- The Department of Homeland Security
- The Department of Health and Human Services
- The United States Department of Agriculture

Other Agencies

- Other State Health Departments
- Wisconsin Veterinary Diagnostic Laboratory

WISCONSIN STATE LABORATORY OF HYGIENE

ENHANCED INFLUENZA MONITORING (rev.02/2003)

YOU MUST CONTACT THE WISCONSIN DIVISION OF PUBLIC HEALTH OR THE WISCONSIN STATE LABORATORY OF HYGIENE PRIOR TO SPECIMEN SUBMISSION FOR FEE EXEMPT TRANSPORT & TESTING. THE FORM MUST BE COMPLETED, INCLUDING PATIENT SYMPTOMS AND TRAVEL & VACCINATION HISTORY.

Patient Information		**Submitter Information**	
Name (Last, First):		(WSLH Agency Number If Known)	
Address:		(Agency Name)	
City: State: Zip:		(Agency Address)	
Date of Birth:	Gender: M F	(City, State, Zip Code)	
Occupation:		(Telephone Number)	
Your Patient ID Number (optional):		Healthcare Provider Full Name:	
Your Specimen ID Number (optional):		Study: VI FLU SURV	Bill To: (WSLH Account # 74201)
Specimen Information			
Date Collected:	Specimen Type: ☐Other_____ ☐Throat Swab ☐ Nasopharynx Swab ☐ Combined Throat/Nasopharynx Swab		

Symptoms		
Date of Onset:		
General	**Respiratory**	**Digestive**
☐ Anorexia	☐ Conjunctivitis	☐ Diarrhea
☐ Arthralgia	☐ Ear Pain	☐ Nausea / Vomiting
☐ Fever	☐ Nasal Congestion	**CNS**
☐ Headache	☐ Nasal Discharge	☐ Encephalopathy
☐ Lymphadenopathy	☐ Pharyngitis	☐ Delirium
☐ Malaise	☐ Hoarseness	☐ Meningismus
☐ Myalgia	☐ Cough *(circle one)* productive / nonproductive / barking	
☐ Photophobia	☐ Crackles	
☐ Rash	☐ Dyspnea	
☐ Mouth Lesions	☐ Wheeze	
	☐ Pneumonia	

Vaccination History (Influenza): Was patient vaccinated? ☐ Yes ☐ No ☐ Unknown
If Yes, Date Vaccinated: / /

Travel History (Places and dates):

Was patient hospitalized? ☐ Yes ☐ No ☐ Unknown
If Yes, where: _____

WISCONSIN STATE LABORATORY OF HYGIENE USE ONLY

WSLH Test Code: 1511

INFECTION CONTROL RECOMMENDATIONS

Healthcare Facilities:

1. Place suspect cases on droplet and standard precautions (see CDC Guidelines on Prevention of Nosocomial Pneumonia at http://www.cdc.gov/ncidod/hip/pneumonia/pneu_mmw.htm.)
2. All persons entering isolation rooms should wear a surgical mask and practice good hand hygiene (see CDC guidelines for hand hygiene in healthcare settings at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm.)
3. Healthcare workers displaying influenza-like symptoms should be removed from direct patient care when possible.
4. Visitors with febrile respiratory illnesses should be restricted from visitation as much as possible.
5. Patients and staff should cover their mouths and noses with tissue when coughing or sneezing, dispose of used tissues immediately after use and wash hands after using tissues.
6. Restrict elective admissions in hospitals
7. Isolation should be initiated at symptom onset and continue for duration of illness (usually 4 to 5 days.)

At Home:

1. Persons should remain at home during their illness (usually until four to five days after symptoms appear).
2. Restrict visitors to the home should as much as possible.
3. Persons entering homes of suspect influenza cases should wear a surgical mask when within 3 feet of the patient, and should wash hands after patient contact and before leaving the home.
4. Patients should cover their mouths and noses with tissue when coughing or sneezing, dispose of used tissues immediately after use and wash hands after using tissues.
5. Family members should wash hands after contact with the patient.

STATUTORY AND LEGAL AUTHORITY

Statute or Administrative Code	Section	Authority
State statute 157 Disposition of Human Remains	157.055	Disposal of human remains during state of emergency relating to public health
State statute 250 Health, Administration and Supervision	250.02	Duties of the state health officer and chief medical officers
	250.03	Public health system
	250.04	Powers and duties of the department (DHFS)
	250.042	Powers and duties of the department as public health authority
State statute 251 Local Health Officials	251.04	Local board of health; powers and duties
	251.06	Local health officer; qualifications and duties
State statute 252 Communicable Diseases	252.02	Powers and duties of department
	252.03	Duties of local health officers
	252.06	Isolation and quarantine
	252.19	Communicable diseases; suspected cases; protection of the public
	252.25	Violation of law relating to health
State statute 979 Investigation of Deaths	979.10	Cremation (of remains)
Wisconsin Administrative Code HFS 145 Control of Communicable Diseases	145.04	Reports of communicable diseases
	145.05	Investigation and control of communicable diseases
	145.06	General statement of powers for control of communicable diseases

INTERNET SITES REFERENCED IN THE WISCONSIN INFLUENZA PREPAREDNESS DOCUMENT

CDC FluAid: FluAid is a test version of software created by programmers at the Centers for Disease Control and Prevention (CDC). It is designed to assist state and local level planners in preparing for the next influenza pandemic by providing estimates of potential impact specific to their locality.
http://www2.cdc.gov/od/fluaid/default.htm

CDC (Pandemic) Planning Guide for State and Local Officials (Draft 2.1)
Currently unavailable. Being Updated by CDC

Wisconsin State Statutes (index)
http://www.legis.state.wi.us/rsb/Statutes.html

World Health Organization Pandemic Preparedness
http://www.who.int/csr/disease/influenza/pandemic/en/

Wisconsin Public Health Emergency Plan (PHEP)
Located on the Health Alert Network (HAN)-- Under search type "PHEP"
The document will be posted on the DHFS website upon completion

Mass Clinic Template
Will be an Appendix to the PHEP and posted on the HAN and DHFS website upon completion

Wisconsin's Emergency Human Services Response Plan
Located on the Health Alert Network (HAN)--
"Topics"--"Bioterrorism"--"Public Health (CDC Grant)"--"Work Groups"--"Mental Health"