

**University of Wyoming**  
**Pandemic Planning Framework**  
**Revised April 27, 2009**

**What is the Pandemic Flu?**

Pandemics have occurred throughout history. Perhaps the most memorable flu pandemic occurred in 1918. Approximately 50 million people worldwide died as a result of that outbreak.

Of most relevant concern today is an avian viral strain known as H5N1 which first appeared in Hong Kong in 1997 and has been spreading among infected flocks of birds around the world. Cases of species to species, transmission including to humans, have already occurred with H5N1. Of those humans who have contracted this strain of H5N1, severe illness has resulted. Approximately half of those infected by this avian flu strain have died. Thus far there have only been a few cases of assumed human-to-human transmission; however, it has not spread beyond one contact.

A pandemic occurs when a new influenza virus appears that can be spread from human to human. Lack of immunity to this new virus results in robust efficiency and the virus quickly spreads around the world. Two of the three conditions have been met in regard to H5N1. The third condition, widespread transmission from human to human, has not yet occurred.

Recently, a new influenza virus has been identified and has the potential to reach pandemic levels. The H1N1 virus is a combination of swine, avian and human flu viruses. The World Health Organization and the U.S. Centers for Disease Control and Prevention are monitoring its progress.

**Why Should UW Plan for the Pandemic Flu?**

While no one can yet predict that a pandemic will occur or to what extent, leading international health organizations offer sobering statistics on the effects of a pandemic and the likelihood of its occurrence. According to the Congressional Budget Office, more than 90 million people could be affected in the United States should a severe pandemic occur. According to this same source, more than 20 million people could die as a result of infection. If a pandemic were to occur, it is expected that there would be a world-wide impact with major disruptions.

In the event of a pandemic, institutions within higher education will experience significant impacts. According to the Centers for Disease Control and Prevention (CDC), high frequency of international travel among university populations, as well as access to campus by various populations and community members, make campuses particularly susceptible to the effects of a pandemic. Given the close proximity within which many of our students, faculty, and staff live and work, the transmission of such an airborne virus would be particularly easy. Of grave concern is the CDC prediction that those between the ages of 15 and 35 are most susceptible to death from this particular flu pandemic. Such a statistic if realized could gravely impact a campus population, especially the student body, the majority of which fall into this targeted age range. Absenteeism, too, would disrupt regular university operations, as well as the ability to respond adequately to such a crisis.

A number of potential effects could occur in the face of a pandemic. Some of these include: unprecedented demands on student health services, relocation of students in residence halls, the establishment of quarantine sites, debilitating sickness among staff and faculty causing severe reductions in the work force, potential loss of leadership or depth of leadership, essential services hampered and perhaps unavailable, significant loss of tuition revenues from closure of the institution, and non-returning students. It is imperative that the University of Wyoming be prepared for not only the possibility of an outbreak (with consideration given to varying levels of severity), but also plan for the recovery of “normal” operations. Recovery can only be facilitated when a strong preparedness plan is in place and plans have been made for thorough cooperation and partnership with other community members and authorities.

## **The Planning Context**

Planning for a pandemic influenza is difficult when the scope and course of the illness cannot be predicted in advance. It is uncertain when a pandemic will occur, and how the community and campus will be impacted. Quoting from the World Health Organization’s Web site:

- Given the high level of global traffic, the pandemic virus may spread rapidly, leaving little or no time to prepare.
- Vaccines, antiviral agents and antibiotics to treat secondary infections will be in short supply and will be unequally distributed. It will take several months before any vaccine becomes available.
- Medical facilities will be overwhelmed.
- Widespread illness may result in sudden and potentially significant shortages of personnel to provide essential community services.

- The effect of influenza on individual communities will be relatively prolonged when compared to other natural disasters, as it is expected that outbreaks will reoccur.

—WHO; August, 2006

WHO recently updated its Pandemic Phase levels in 2009. The State of Wyoming and University of Wyoming Pandemic Phases continue to reflect the pre-2009 information.

Because the planning context is uncertain, certain assumptions have been identified and serve as the foundation for the University of Wyoming's Pandemic Planning Report:

- Rather than prescribing exact courses of action to take if a pandemic occurs, this document attempts to identify several key factors that will influence decision making.
- This plan is a subset of UW's existing Emergency Response Plan which outlines roles and responsibilities during an emergency.
- The planning efforts have been grouped by "Pandemic Level," which is described later in this document. UW's Pandemic Level is influenced by the State of Wyoming's Declared Pandemic Level.
- This plan addresses only those major institutional functions that are most likely to be affected by the pandemic. Units are encouraged to further develop pandemic preparations under the context of this plan.
- During a major health crisis, communication with state and county health officials is critical. This document will be reviewed by key officials before implementation.
- The health and safety of UW's faculty, staff and students is paramount. Business continuity, too, is of critical importance and is reflected in this planning document.
- It may be necessary to reduce services, or to even close the campus, during a pandemic flu outbreak.
- Because a pandemic may occur in waves, the UW planning document and associated levels is intended to be dynamic; it is assumed that moving back and forth between the levels may be necessary depending on how the illness spreads and its level of severity.
- The UW pandemic planning document is designed to coordinate and complement state and/or county plans and acknowledges that in the course of a full-blown pandemic, UW resources may be requested by other entities.
- There is a legal context that will guide our response. Additionally, UW may wish to support change to certain legal agreements.

### **State of Wyoming Pandemic Flu Planning**

We would be remiss to begin planning for UW's pandemic response without first discussing the State of Wyoming's planning efforts. The state has drafted its own Pandemic Influenza Response Plan. The purpose of the state plan is to provide a guide for the Wyoming

Department of Health (WDH) for detecting and responding to an influenza pandemic. UW's pandemic plan is designed to be compatible with the state plan to ensure continuity and overall efficacy. As noted in the Wyoming State plan, states are charged with planning and coordinating the overall response to a potential pandemic within and between their jurisdictions. The state plan lists as the following state-specific responsibilities:

- Identification of public and private sector partners needed for effective planning and response.
- Development of key components of pandemic influenza preparedness plan (surveillance, vaccine and antiviral distribution, disease control, and communications) following guidance provided by the Department of Health and Human Services (HHS) in the national Pandemic Influenza Preparedness and Response Plan.
- Integration of pandemic influenza planning with other planning activities conducted under Centers for Disease Control and Prevention's Public Health Preparedness and Response and Health Resources and Services Administration's (HRSA) Hospital Preparedness Program cooperative agreements with states.
- Coordination with local areas to ensure development of local plans as called for by the state plan and provide resources, such as templates to assist in planning process.
- Development of data management systems needed to implement components of the plan.
- Assistance to local areas in exercising plans.
- Coordination with adjoining jurisdictions.

Guided by the Department of Health and Human Services' national Pandemic Influenza Preparedness and Response Plan, the State of Wyoming plan focuses on the following key topical areas: command and control, surveillance, influenza disease control and prevention, vaccine delivery, antiviral agents, healthcare surge capacity, and communications. The Wyoming Department of Health (WDH) has developed its own five pandemic phases for planning purposes. These phases include: Inter-pandemic (Phase 1); Pandemic Alert (Phase 2); Pandemic Alert and Pandemic (Phase 3); and Pandemic (Phases 4 and 5). Two additional phases, Deceleration and Resolution were added to describe the periods of returning to normalcy after a pandemic event.

**Table 1: WHO Pandemic Influenza Phases (pre-2009)**

<i>Period</i>	<i>Phase</i>	<i>Description</i>
<i>Inter-pandemic</i>	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 <sup>a</sup> of human infection or disease is considered to be low.
	2	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk <sup>a</sup> of human disease.
<i>Pandemic Alert</i>	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. <sup>b</sup>
	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. <sup>b</sup>
	5	Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).
<i>Pandemic</i>	6	Increased and sustained transmission in general population. <sup>b</sup>

<sup>a</sup> The 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 is based on various factors and their relative importance according to current scientific knowledge. Factors may include pathogenicity in animals and humans, occurrence in domesticated animals and livestock or only in wildlife, whether the virus is enzootic or epizootic, geographically localized or widespread, and/or other scientific parameters.

<sup>b</sup> The 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), and/or other scientific parameters.

**Table 2: Wyoming Pandemic Influenza Phases**

<i>Corresponding WHO Period</i>	<i>WY Phase</i>	<i>Description</i>
<i>Inter-pandemic (1&amp;2)</i>	1	No new influenza virus subtypes have been detected in humans.
<i>Pandemic Alert (3)</i>	2	Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.
<i>Pandemic Alert (4&amp;5) and Pandemic (6)</i>	3	Human to human transmission occurring  Limited transmission in other countries or US states (but not in WY) or widespread transmission in other countries. May include isolated sporadic cases in WY, without evidence of transmission.
<i>Pandemic (6)</i>	4	Widespread transmission in US (but not in WY) and/or limited transmission in WY
	5	Increased and sustained transmission in WY population
	Deceleration	Rates of pandemic influenza infection are decreasing
	Resolution	Pandemic influenza cases have ceased, or occur only sporadically

*The State of Wyoming Pandemic Influenza Response Plan is published by the Preventive Health and Safety Division of the Wyoming Department of Health. Chart Updated from Wyoming Pandemic Influenza Response Plan Version 6 8/2008.*

**UW Planning Levels**

UW will designate five Pandemic levels that will be used to define response plans. The levels were determined by considering the affect of a progressive pandemic disease on university operations. The UW levels loosely correspond with the State of Wyoming Declared Pandemic Levels—which are based on the spread of disease— but also emphasizes factors such as the severity of the disease and the ability

of the university to sustain operations. Each level will consist of several decision points that will be weighed when making the decision to change levels. The vice president for Administration, in consultation with the president, will make the decision to change levels.

### ***Pandemic Planning***

The Pandemic Planning Level is characterized by no or limited human-to-human spread of disease and encompasses the State of Wyoming's Levels 1-3. During this level, units are planning for the possibility of a pandemic situation, but operations remain normal.

### ***Pandemic Alert***

The Pandemic Alert Level is characterized by increased human-to-human spread of the disease. The disease may not be prevalent in Wyoming or the region; or may be prevalent, but not severe enough to warrant major changes to operations. Wyoming Pandemic Level 4 or 5.

### ***Limited Pandemic***

The Limited Pandemic Level is characterized by increased human-to-human spread of the disease. The disease is prevalent, or anticipated to be prevalent, in Wyoming and/or the region. The disease is severe enough to warrant major changes to operations. Wyoming Pandemic Level 4 or 5.

### ***Full Pandemic***

The Pandemic Level is characterized by existing or the potential for high absentee and illness rates at the university with severity of the disease high enough to warrant significant operational changes including university or campus closure. The disease is prevalent, or anticipated to be prevalent, in Wyoming and/or the region and, where prevalent, is severely affecting the population. Wyoming Pandemic Level 5.

### ***Pandemic Recovery***

The Post Pandemic Level is characterized by a return to more normal rates of absenteeism and illness. The disease is no longer spreading in Wyoming or the region, and it is likely that an effective vaccine is available. Supplies are being replenished, plans are being revised as needed, and campus operations have returned to normal. Wyoming periods Deceleration and Resolution.

**Table 3: UW Pandemic Planning Levels – (Draft 1/9/07)**

<i>Corresponding WY Phase</i>	<i>UW Planning Level</i>	<i>Description</i>
1-3	Pandemic Planning	<ul style="list-style-type: none"> <li>• <i>No or limited human-to-human spread of disease</i></li> <li>• <i>Planning is taking place</i></li> <li>• <i>State of Wyoming Levels 1-3</i></li> <li>• <i>Operations are normal</i></li> </ul>
4 or 5	Pandemic Alert	<ul style="list-style-type: none"> <li>• <i>Increased human-to human spread of disease</i></li> <li>• <i>Disease may not be prevalent in region, or be prevalent but not severe</i></li> <li>• <i>State of Wyoming Level 4 or 5</i></li> <li>• <i>Operations minimally impacted</i></li> </ul>
4 or 5	Limited Pandemic	<ul style="list-style-type: none"> <li>• <i>Increased human-to human spread of disease</i></li> <li>• <i>Disease prevalent or anticipated to be prevalent in region</i></li> <li>• <i>State of Wyoming Level 4 or 5</i></li> <li>• <i>Operations are significantly affected</i></li> </ul>
5	Full Pandemic	<ul style="list-style-type: none"> <li>• <i>Existing or potential for high illness and absentee rates on campus.</i></li> <li>• <i>Disease prevalent or anticipated to be prevalent in region</i></li> <li>• <i>Disease is severely affecting the population</i></li> <li>• <i>State of Wyoming Level 5</i></li> <li>• <i>Major impact to operations including possible closure</i></li> </ul>
Deceleration or Resolution	Pandemic Recovery	<ul style="list-style-type: none"> <li>• <i>Normalization of absenteeism and illness</i></li> <li>• <i>Disease no longer spreading in region</i></li> <li>• <i>Vaccine is likely available</i></li> <li>• <i>Operations are returning to normal.</i></li> </ul>

### ***Decision Points to Affect Changing Levels***

The following are considerations that will be taken into account when deciding to change levels:

- The State of Wyoming's declared pandemic level.
- The proximity of declared influenza cases to Laramie.
- The severity of the disease (mortality rates).
- The percentage of staff, students, and faculty who are ill and/or absent.
- The ability to secure supplies to sustain operations.

It is important to note that, as a pandemic unfolds, there may be other considerations that come into play.

### ***Possible Outcomes at Pandemic Alert, Limited Pandemic and/or Full Pandemic Levels:***

Each university department will be asked to consider the impact of a pandemic situation upon its operation. Specific steps to be taken by key units during each of the levels are discussed in the following sections of this document. When the decision is made to raise the pandemic level to Limited or Full Pandemic status, the university is acknowledging that it is no longer feasible or prudent to conduct operations as usual. The types of decisions to be made when entering either of these levels include how or whether:

- To quarantine on-campus residents who experience flu symptoms
- To suspend public gatherings
- To enact work-at-home status for non-essential personnel
- To deliver classes via e-mail, telephone, or some other medium
- To distribute food and/or supplies to remaining students and/or essential personnel
- To allocate facilities for health care purposes
- To communicate with personnel, students, and families of students
- To close the university

### ***Roles and Responsibilities at UW***

The command structure outlined in UW's Emergency Response Plan will serve as the foundation during a pandemic:

*Policy Group:* The Policy Group, chaired by the president, is composed of core university administrators and senior staff. The Policy Group is responsible for providing oversight and direction, defining emergency policy, and determining program closures and resumptions.

*Operations Director:* The vice president for Administration shall serve as the operations director, and shall, in consultation with the president, declare UW's Pandemic Level.

*Operations Coordinator:* Reporting to the vice president for Administration, the director of Risk Management with the chief of UW Police as the delegated alternate shall coordinate emergency operations at Pandemic Levels Yellow and Red.

*Pandemic Planning Team:* The Pandemic Planning Team is responsible for updating this document, educating campus constituents about planning efforts, and for coordinating scenario planning to test UW's readiness efforts. Members of the planning team may be called upon to serve in operational functions during a pandemic based on their functional responsibilities at UW.

***Issues that May Affect Roles and Responsibilities:***

- In a pandemic situation, congregating will be discouraged and meetings will likely need to be organized by conference call, chat room, or other technically available means.
- Absentee rates will potentially be high during a pandemic situation. To maintain order during a crisis, it will be necessary to clearly identify the order of succession for all identified decision-makers within this document.

**Campus Functional Planning Efforts**

This section reviews the potential impact of a pandemic influenza outbreak upon broad institutional functions. These functions will likely need to adapt to different levels or types of service during a pandemic influenza outbreak.

**Academic Affairs & Research**

Considerations for Academic Affairs and Research are primarily focused on maintaining course delivery, working with students to complete courses, and maintaining safety and care of lab animals. Planning initiatives include:

- Developing alternate delivery of course materials and student assessment
- Working with the dean of students to manage incompletes and absences for students
- Developing protocols for international travelers and visitors (faculty, staff and students)
- Developing protocols for laboratory animals and critical experiments
- Developing communication plans for Extension and off-campus units

**Business Operations**

The major consideration for Business Operations includes sustaining financial operations during possible campus reduction in operations or closure.

### **Media Relations and Communication**

Communication strategies must encompass both internal and external components, ensuring that university students, faculty and staff are informed of developments and that the public is regularly updated about the university's status.

### **Facilities and Transportation**

Planning for Facilities and Transportation includes identification of buildings to be used as special purpose facilities during a pandemic event; identifying and implementing strategies to maintain cleanliness, maintenance, and the campus utility infrastructure during a pandemic event; and procuring and storage of supplies to support these functions during a pandemic. Additionally, transportation issues include transporting personnel or supplies in preparation for or during a pandemic event.

### **Student Health Services**

The Student Health Service will be at the forefront of the Pandemic Influenza response plan at the University of Wyoming. During the Pandemic Planning Phase the SHS has several roles, including:

- Monitoring reports from the CDC and WDH regarding the status of avian flu in the world and, potentially, the United States.
- Continuing our sentinel influenza status with the WDH, monitoring influenza-like illnesses and cases of influenza in the students we serve.
- Stockpiling supplies that will be required if a pandemic influenza affects our university community.
- Providing yearly influenza clinics for staff and faculty based on vaccination availability and guidelines for providing the vaccine.
- Educating the campus community on cough hygiene and hand washing.
- Serving as a liaison with the County Medical Coordination Committee to be certain the university's role and issues are represented and our role is appropriately defined.

As UW moves into the Pandemic Alert Phase, the Student Health Service will expect to be more vigilant in its approach to students with illnesses consistent with influenza. Isolation and quarantine will become an issue based on the epidemiology and symptoms of a patient. Vaccine clinics will be scheduled if vaccine is available.

Should UW be faced with a pandemic, and depending on the volume and acuity of patients, the SHS may need to suspend all routine patient care and concentrate on those with respiratory illnesses. The School of Nursing faculty will be able to assist with patient care duties,

either offsite at the College of Health Sciences, or, if there is attrition of staff at the SHS due to illness affecting them or or their families, at the Student Health Service.

### **Human Resources**

Human resource issues include identifying essential personnel at varying levels of operations, identifying protocols for working at home, establishing sick leave policies that account for the potential of significant missed days of work, and determining pay policies for times when UW may be closed. Additionally, during the recovery phase, it may be necessary to intensify recruiting efforts to fill vacant positions.

### **Public Safety, Risk Management and Legal and Contractual**

Public Safety, to include Risk Management/Legal, Law Enforcement/Security, and Environmental Health and Safety, will focus its planning efforts on providing basic services, securing facilities and supplies, maintaining order, and establishing command and control in coordination with other agencies.

### **Student Life**

Student life considerations focus on the need to provide basic services during a pandemic crisis including housing and supporting students with their mental health concerns. These issues include providing services for tenants/residents who remain on campus during a declared pandemic situation, preparing for isolation or quarantine situations, and developing strategies to provide mental health services under these conditions. In the recovery phase, a focus on recruiting and reestablishing reenrollment may be necessary.

### **Dining Services**

Developing protocols to feed remaining students and/or other members of the community during a pandemic situation is the primary focus of this section. The two primary concerns for Dining Services are planning appropriate levels of food stores and developing strategies to prepare and distribute food during situations where congregating is discouraged and the workforce is severely limited.

### **Telecommunications and Computing Infrastructure**

This section focuses on the need to maintain an effective communications structure during a pandemic crisis among campus leaders and with local and state authorities. Additionally, planning will be developed to support alternative delivery methods for classroom material, and to maintain the operations of UW's administrative computing structure during a crisis.