



# UNIVERSITY of NEW HAMPSHIRE

## PROTECTING PERSONNEL DURING A PANDEMIC

### **Introduction**

Unlike many other catastrophic events, a pandemic influenza will not directly affect the physical infrastructure of the campus. However, it will threaten all critical infrastructure by its impact on human resources by removing essential personnel from the workplace for weeks or months.

The Department of Health and Human Services estimates that up to 40 percent of employees will be absent for periods of about two weeks at the height of a pandemic wave with lower levels of staff absent for a few weeks on either side of the peak. These absences may be due to personnel who:

- care for the ill;
- are under voluntary home quarantine due to an ill household member;
- care for children dismissed from school;
- feel safer at home; or
- are ill or incapacitated by the virus.

### **USNH Policies on Emergency Preparedness**

USNH is currently in the process of developing three draft policy initiatives covering emergency preparedness. These include:

- an update of the current “Communicable Diseases” policy - USY V.D.10;
- an “Emergency Response Authority” policy (for emergencies expected to last more than a week in duration); and
- an update to the current "Curtailed Operations" policy (for emergencies of less than a week in duration).

### ***Communicable Diseases Policy***

During an influenza pandemic, the UNH President, in consultation with health professionals, will determine the need to:

- close part or all of UNH;
- send students home;
- determine essential services;
- declare curtailed operations;
- implement a temporary teleworking plan;
- address security issues; and
- identify a key spokesperson and information data base.

### ***Emergency Response Authority Policy***

This policy will delegate authority for Human Resource issues in the case of emergencies expected to last more than a week. This policy will establish certain requirements in the case of emergency such as benefit continuation regardless of active employment and will establish authority for campus management to override some areas of system-wide policy (such as rate of overtime pay, extensions to pending grievances, requirements for documentation of some events, etc.) in order to deal with emergencies.

### ***Curtailed Operations Policy***

The policy (for emergencies of less than a week in duration) will be revised to include more clarity and more options to close certain services. This policy will also have an option for UNH to declare certain employees should work from home for safety reasons.

### **Essential Personnel and Services**

Services provided by personnel should be categorized as critical or essential in light of their importance to the campus and their contribution to maintaining critical infrastructure.

Managers must make determinations about which employees perform essential functions at the organization level. This will be done by identifying core functions, services, and capabilities required to sustain business operations during and after a pandemic.

Examples of essential personnel may include, but are not limited to certain members of the following groups:

- Environmental Health and Safety
- Facilities Maintenance
- Food Services
- Health Services
- Housekeeping Services
- Human Resources
- Media Relations
- Payroll
- Purchasing
- Telecommunications
- Transportation Services
- University Police Department

## Characteristics of Influenza Transmission

Human influenza virus is transmitted from person-to-person primarily via virus-laden large droplets (particles >5 µm in diameter) that are generated when infected persons cough, sneeze, or speak. These large droplets can then be directly deposited onto the mucosal surfaces of the upper respiratory tract of susceptible persons who are near (i.e., typically within 3 feet of) the droplet source. Transmission also may occur through direct and indirect contact with infectious respiratory secretions.

Patients with influenza typically become infectious after a latent period of about 1 to 1.5 days and prior to becoming symptomatic. At about 2 days, most infected persons will develop symptoms of illness although some remain asymptomatic throughout their infection. This is important because even seemingly healthy asymptomatic individuals in early stages of influenza could be infectious to others.

## Symptoms of Pandemic Influenza

The exact symptoms of a pandemic strain of influenza will only be known at the time of the pandemic. Based on previous pandemics, experts predict that the symptoms of pandemic flu will be the same as the seasonal flu virus. Example of symptoms include:

- sudden onset of high temperature;
- muscle aches and pains;
- tiredness;
- cough;
- sore throat; and
- stuffy or runny nose.

It may take 2 to 7 days to show symptoms when you catch the influenza virus. The symptoms may last up to a week.

## Vaccine and Antiviral Medications

The primary strategies for preventing pandemic influenza are the same as those for seasonal influenza:

1. vaccination;
2. early detection and treatment with antiviral medications; and
3. the use of infection control measures to prevent transmission.

Only a limited stockpile of partially matched pandemic vaccine may be available when a pandemic begins. A virus-specific vaccine to protect personnel will not be available until 4 to 6 months after isolation of the pandemic virus. The supply of antiviral drugs will be limited

throughout a pandemic. Until sufficient stockpiles of antiviral drugs have been established, these medications may be available for treatment of only some symptomatic individuals. Therefore, the appropriate and thorough application of infection control measures remains the key to limiting transmission, delaying the spread of a pandemic, and protecting personnel.

## Infection Control Measures

A pandemic may come in waves, each lasting weeks or months. Not all susceptible individuals will be infected in the first wave of a pandemic. Therefore preventing transmission by limiting exposure during the first wave may offer several advantages. First, by limiting exposure, people who are not infected during the first wave may have an increased chance of receiving virus-specific vaccine as it becomes available. Second, limiting exposure and delaying transmission can change the shape of the epidemic curve and mitigate the social and economic impact of a pandemic by reducing the number of people who become ill at any given time.

At UNH, the systematic application of infection control and social distancing measures during a pandemic should reduce employee-to-employee disease transmission rates, increase employee safety and confidence, and possibly reduce absenteeism.

Given the characteristics of influenza transmission, a few simple infection control measures may be effective in reducing the transmission of infection. Persons who are potentially infectious should:

- stay home if they are ill;
- cover their nose and mouth when coughing or sneezing and use facial tissues to contain respiratory secretions and dispose of them in a waste container (respiratory hygiene/cough etiquette); and
- wash their hands (with soap and water, an alcohol-based hand rub, or antiseptic handwash) after having contact with respiratory secretions and contaminated objects/materials (hand hygiene).

Persons who are around individuals with influenza-like symptoms should:

- maintain spatial separation of at least 3 feet from that individual;
- turn their head away from direct coughs or sneezes; and
- wash their hands (with soap and water, alcohol-based hand rub, or antiseptic handwash) after having contact with respiratory secretions and contaminated objects/materials.

## **Social Distancing Measures**

Depending on the severity of a pandemic and its anticipated effects on health care systems and the functioning of critical infrastructure, UNH may recommend general measures to promote social distancing and the disaggregation of disease transmission networks. Within the workplace, social distancing measures could take the form of:

- Guidelines modifying the frequency and type of face-to-face encounters that occur between employees;
- moratoriums on hand-shaking;
- substitution of teleconferences for face-to-face meetings;
- staggered breaks;
- flexible work hours for worksite, including teleworking;
- promotion of social distancing between employees and students; and
- posting infection control guidelines in prominent locations;

Some social distancing measures, such as the recommendation to maintain 3 feet of spatial separation between individuals or to otherwise limit face-to-face contact, may be adaptable to certain work environments and in appropriate settings should be sustainable indefinitely at comparatively minimal cost. Other community public health interventions (e.g., closure of schools and public transit systems, implementation of “snow day” restrictions) may increase rates of absenteeism and result in disruption of workflows and productivity.

## **Respiratory Protection**

Essential personnel will be provided N95 respirators in the event of an influenza pandemic. These respirators, in conjunction with cough etiquette, hand hygiene, and avoiding public gatherings, should help reduce the spread of infection. N95 respirators must be disposed daily and when they become moist. Individuals should wash their hands after touching or discarding a used respirator.

During a pandemic, persons who are diagnosed with influenza or who have a febrile respiratory illness should remain at home until the fever is resolved and the cough is resolving to avoid exposing others. If such symptomatic persons cannot stay home during the acute phase of their illness, consideration should be given to having them wear a surgical or procedure mask in public places when they may have close contact with other persons.

## **Cleaning of Facilities and Equipment**

Given the concern regarding the spread of influenza through contaminated objects and surfaces, additional measures may be required to minimize the transmission of the virus through environmental surfaces such as sinks, handles, railings, and counters. Transmission from contaminated hard surfaces is unlikely, but influenza viruses may live up to 2 days on such surfaces. Surfaces that are frequently touched with hands should be cleaned at least daily during community outbreaks. There is no evidence to support the efficacy of widespread disinfection of the environment or air.

HHS has developed recommendations regarding cleaning procedures as well as the handling of waste, eating utensils, and laundry for health care settings including home care. HHS will develop additional guidance regarding cleaning procedures and handling of potentially contaminated waste in non-health care settings such as the workplace.

## **Complications Related to Influenza**

Risk group classifications will be modified as necessary in light of epidemiologic data collected during a pandemic. Individuals at high risk for severe and fatal infection cannot be predicted with certainty but are likely to include:

- Pregnant women;
- Persons with compromised immune systems due to cancer, AIDS, history of organ transplant, or other medical conditions;
- Persons less than age 65 with underlying chronic conditions;
- Persons age 65 or greater.