

## University of Minnesota-Twin Cities Campus Infectious Disease Containment Strategies

### Overview

In the face of an influenza pandemic or another infectious disease outbreak, the University of Minnesota will employ disease containment measures designed to slow the transmission of disease on campus. This document has been developed to address anticipated challenges posed by an influenza pandemic; it will also serve as the basis for containment of other outbreaks and will be revised and/or enhanced, as needed, in consultation with the Minnesota Department of Health.

Pandemic influenza disease containment strategies may include:

- Isolation and quarantine in campus housing for individuals or groups.
- Infection control measures such as respiratory etiquette, hand hygiene or the use of personal protective equipment.
- Reduction in routine University-related activities as part of a “snow days” strategy and social distancing strategies for employees who must work because their work is deemed essential (e.g. cancellation of face-to-face meetings, staggering of work shifts etc.).
- University-wide containment measures including cancellation of classes or public gatherings.

The purpose of this document is to:

1. Define disease containment measures that may be used to slow the spread of pandemic influenza on campus.
2. Describe roles and responsibilities of government agencies and University departments during the implementation of such measures.
3. Describe the process for isolation and quarantine for students remaining on campus.

### Disease Containment Strategies

**Isolation** refers to the separation of a patient with a communicable disease from other persons in an attempt to reduce the infectious risk that person poses to other people in the community. At all stages of a pandemic, people infectious with pandemic influenza will be advised to isolate themselves from others, typically in their own homes. For infectious students housed on campus and unable to be isolated at home, a companion plan for use of existing residential housing facilities has been created.

**Quarantine** refers to the separation from others or the restriction of movement of individuals or groups who are not ill but who have likely been exposed to an infectious agent. The purpose of quarantine is to reduce the potential spread of the agent throughout a community. Influenza has a very short incubation period (1-4 days) and persons infected with influenza may be infectious for a day prior to the onset of symptoms. For these reasons, quarantine is a more difficult strategy to employ as a disease containment measure for influenza and may be effective only during the early pandemic period or pandemic alert period when outbreaks are very focal or limited. Once a pandemic is

widespread, exposure to the influenza virus will be difficult to identify and the labor intensive nature of this type of public health endeavor will not be of benefit.

The Department of Health and Human Services (HHS) recommends quarantine of specific groups with a common disease exposure only in the following situations:

- There is limited disease in the area;
- Exposure is to a common and traceable source; and
- The use of quarantine will either significantly slow the spread or magnitude of the disease in the community.

**Community Disease Containment** refers to strategies that affect groups or larger populations such as the entire University or community as a whole without regard to exposure or health status of individuals. These may include promotion of community-wide infection control measures (e.g., respiratory etiquette), closure of schools, the cancellation of classes or other public gatherings, the use of “snow days,” (defined as a time in which all community nonessential personnel are asked to avoid work or other outside activities), and social distancing for essential personnel who must work. These strategies will likely be used when there is a sustained level of influenza transmission and no clear epidemiologic links can be identified between cases. As influenza activity increases, so will the scope of community disease containment strategies.

## **Roles and Responsibilities**

### **Federal, State, and Local Government Agencies**

#### **Minnesota Department of Health (MDH)**

MDH is the lead state agency for isolation, quarantine and community-wide infection control measure recommendations. Guided by epidemiologic data and legal authority, MDH will implement or recommend appropriate disease control strategies. MDH will also develop protocols and work with local public health (LPH) in monitoring persons in isolation and quarantine. MDH and LPH will only monitor people in isolation and quarantine early in an pandemic before there is widespread community transmission. After that time, MDH will make generic recommendations for isolation of infectious persons.

#### **Minnesota Department of Public Safety**

This department is the lead agency for implementing community disease containment measures and facilitating preparation of the private sector and other government agencies for community containment procedures.

#### **Hennepin County Human Services and Public Health Department/ Ramsey County Department of Health**

Local health departments may be called upon by the MDH to assist with monitoring persons in isolation and quarantine early in a pandemic before there is widespread community transmission.

### **CDC Quarantine Station MSP International Airport**

Quarantine officers at the MSP airport have the authority to screen passengers and implement isolation and quarantine measures if indicated. It is possible that incoming passengers exposed on a flight may be ordered into home quarantine; therefore, the Quarantine Officer will notify the Academic Health Center Office of Emergency Response if any University residential facility resident has been ordered into quarantine so that the proper quarantine arrangements can be made for that individual or group. The Centers for Disease Control and Prevention (CDC) plans to consider quarantine of passengers in WHO pandemic phase 5 and early phase 6 before the pandemic is established in the U.S. MDH has agreed to monitor people that the CDC places in quarantine.

### **University of Minnesota**

#### **AHC Office of Emergency Response/Emergency Response Team**

AHC Office of Emergency Response (OER) staff will obtain guidance from MDH on community containment measures including use of isolation and quarantine in University housing, cancellation of classes or other group gatherings, and use of “snow days”. The recommendations will be reviewed by the AHC Emergency Response Team (ERT) and University strategies regarding isolation, quarantine, class cancellation, and other containment measures will be determined by the ERT and forwarded to the Officer of the Day. The OER will also activate the U of M Medical Reserve Corps as needed to meet the health needs on campus or in the community.

#### **Boynton Health Service (BHS)**

BHS will support isolation and quarantine measures within University housing by providing monitoring equipment and healthcare personnel to assist with monitoring students in isolation or quarantine, and will have primary responsibility for providing outpatient healthcare services as needed. BHS will work with the OER and LPH (or MDH) to assure that the monitoring and housing standards are consistent with HHS and MDH guidelines. A protocol will be developed for entry of healthcare personnel into an isolation or quarantine site including use of personal protective equipment.

#### **Housing and Residential Life (HRL)**

HRL staff will work with OER to choose appropriate housing for students in isolation and quarantine based on HHS and MDH guidelines. They will assure that these facilities meet the HHS and MDH guidelines and that people in isolation or quarantine receive required essential services. HRL will also develop a web-based system for students to check in while housed on campus during days in which community disease containment measures have been employed to assure the health and safety of those students.

**Department of Emergency Management (DEM)**

DEM will assist with isolation and quarantine implementation as needed, particularly related to non-clinical care issues.

**University of Minnesota Police Department (UMPD)**

The UMPD will ensure the safety and security of all individuals living in and working in the residential halls.

**Department of Environmental Health and Safety**

The Department of Environmental Health and Safety will ensure the availability of emergency fit-testing of personal protective equipment, and will review and address issues related to facility ventilation.

**Isolation and Quarantine in Campus Housing**

**Isolation**

Isolation of persons infectious with pandemic influenza should occur during all phases of the pandemic period. According to HHS, persons who do not require hospitalization, but meet the case definition for pandemic influenza will be requested to isolate themselves at home. Students housed at the University who can receive care in their own homes will be encouraged to do so. If a student is unable to be cared for at home, isolation will occur in residential dormitories on campus. (Details of housing facility specifications can be found in the Housing & Residential Life and University Dining Services Pandemic Influenza Preparedness Plan.)

HRL, in cooperation with OER, will assure that campus housing used for influenza isolation meets the HHS standards including:

- Functioning telephone and internet access (if available)
- Electricity
- Potable water
- Bathroom, private or shared only by isolated patients
- Meals (provided by staff from HRL and University Dining Services)
- Laundry
- Infection control materials: masks, tissues, alcohol-based hand sanitizer, etc.
- Thermometer
- Information on proper waste disposal
- Security
- Information on accessing emergency medical services and public health officials on a 24/7 basis and transportation to a medical facility if symptoms warrant
- Access to needed prescription medications and personal items
- HVAC (All rooms should have adequate thermal control and ventilation. If the nature of the infection mandates negative air flow isolation and there is no capacity in area hospitals for students requiring isolation, an attempt will be made to create a negative airflow isolation room or “ward” in campus housing with the assistance of the Department of Environmental Health and Safety.)

**Daily Monitoring:** The monitoring of students in isolation will be performed by staff from BHS, residence hall health advocate volunteers and members of the University of Minnesota Medical Reserve Corps (MRC) as needed. MDH protocols will be used for monitoring of isolated persons during the time monitoring is recommended by MDH. When monitoring of isolated persons is no longer being recommended by MDH as a disease control measure, the U of M will continue to monitor persons isolated on campus to ensure their health and safety. If there are no staff available to monitor students in isolation on campus due to staff absenteeism, students will be housed in community-based isolation facilities under the general recommendations of the MDH.

**Personal Protective Equipment (PPE):** Patients in isolation should wear surgical masks when being visited by a care provider. According to the MDH, full barrier protection is recommended for healthcare providers caring for patients with pandemic influenza. PPE for full barrier precautions consists of a gown, gloves, eye protection, and a respirator at least as protective as an N95. MDH acknowledges that supplies of PPE may be limited during a pandemic and will advise on prioritization of PPE according to supply. Personnel caring for patients in isolation will use all available PPE including N95 masks, gloves, gowns and eye protection. Guidelines for PPE may be modified based on the nature of the infectious agent.

### **Quarantine**

Quarantine of individuals and groups in campus housing will occur in cooperation with and under the recommendation of the MDH. Whenever possible, exposed persons will be quarantined at home and students who can be quarantined at home will be encouraged to do so. If a student or group of students housed on campus cannot be quarantined at home, they will be housed in quarantine on campus. (Details of housing facility specifications can be found in the Housing & Residential Life and University Dining Services Pandemic Influenza Preparedness Plan.)

HHS recommends that persons exposed to influenza be quarantined for as long as 10-14 days. MDH will develop specific quarantine duration guidelines based upon available epidemiologic information at the time of the event.

Standards for housing include:

- Functioning telephone and internet access (if available)
- Electricity
- Potable water
- Private bath for each quarantined individual
- Meals (provided by staff from HRL and University Dining Services)
- Laundry
- Thermometer
- Information on proper waste disposal
- Security
- Information on accessing emergency medical services and public health officials on a 24/7 basis and transport to medical facility if symptoms warrant
- Access to needed prescription medications and personal items

- Access to psychological support

A web-based system for daily census and health reporting is under development by HRL, however, monitoring will occur via telephone or visits by healthcare staff for quarantined students according to MDH protocols.

At the end of the quarantine period, contacts should receive a physical and psychological assessment by BHS staff. Students without fever or respiratory symptoms may return to normal activities. Students exhibiting signs of psychological stress will be referred to appropriate support services on campus as determined by BHS staff.

References:

Minnesota Department of Health Pandemic Influenza Plan ([www.health.state.mn.us](http://www.health.state.mn.us))  
HHS Pandemic Influenza Plan ([www.pandemicflu.gov](http://www.pandemicflu.gov))  
University of Minnesota Pandemic Influenza Preparedness Work Plan  
([www.ahc.umn.edu](http://www.ahc.umn.edu))