

The Minnesota Department of Health

Mitigation Strategies: Use of Non-pharmaceutical Interventions

Pandemic Influenza Plan Interim Supplement



Coordinating Division:

Infectious Disease, Epidemiology, Prevention and Control (IDEPC)

Supporting Divisions/Departments:

Executive Office

Office of Emergency Preparedness

Public Health Laboratory

Supporting State Agencies:

Department of Education (MDE)

Department of Human Services (DHS)

Department of Public Safety, Division of Homeland Security and Emergency Management (HSEM)

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Introduction

In May 2006, the Minnesota Department of Health (MDH) released its *Pandemic Influenza Plan*. The plan gives a robust explanation of the over-arching activities MDH will perform prior to and during an influenza pandemic.

The Pandemic Influenza Plan is not the final step in preparing for a pandemic. MDH, in cooperation with various state and local organizations, continues to prepare and plan for the next pandemic. MDH has been working on ways to:

- Limit transmission of a pandemic influenza virus;
- Decrease mortality and morbidity during a pandemic;
- Ease the burden on the healthcare system during a pandemic; and
- Lessen the economic and societal impact of a pandemic.

On February 1, 2007, the U.S. Department of Health and Human Services (HHS) and Centers for Disease Control and Prevention (CDC) issued the federal *Interim Pre-Pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States – Early, Targeted, Layered Use of Non-pharmaceutical Interventions* (<http://www.pandemicflu.gov/plan/community/mitigation.html>).

The guidance focuses on social distancing measures to reduce contact between people including:

- Closing schools
- Canceling public gatherings
- Planning for liberal work leave policies
- Teleworking strategies
- Voluntary isolation of cases
- Voluntary quarantine of household contacts

The guidance was developed through a collaborative process that included public health officials, mathematical modelers, researchers, and stakeholders from government, academia, private industry, education, and civic and faith-based organizations. It will be refined as needed based on additional knowledge gained from research, exercises, and practical experience.

MDH used this federal guidance in the development of this supplement. We too recognize that emergency preparation is a continuum and planning efforts will always be evolving. As new information arises and lessons are learned, this document will be updated as necessary.

Background

Pandemic Influenza

Pandemic influenza is a unique public health emergency. The next pandemic will likely have devastating effects on the American public. HHS estimates¹ that in the U.S. alone:

- Up to 90 million people will be ill;
- Forty-five million people will require outpatient care;
- Ten million people will be hospitalized; and
- Between 200,000 and two million people will die.

Pandemic influenza is considered to be a relatively high probability event - even inevitable - by many experts, yet no one knows when the next pandemic will occur and there may be very little warning. There likely will be less than six months between the identification of a novel influenza virus that results in human-to-human transmission and the time that widespread outbreaks begin to occur in the U.S. Outbreaks are expected to occur simultaneously throughout much of the nation and the world, thus preventing relocation of human and material resources.

The effect of pandemic influenza on individual communities will be relatively prolonged – six to eight weeks for each “wave” – when compared to the minutes-to-days observed in most other natural disasters. Should a pandemic occur, every community would have to rely primarily on its own resources as it combats the pandemic.

The terms “novel influenza virus” and “pandemic virus” are used in this document. Currently, the virus of greatest pandemic concern is a highly pathogenic H5N1 avian influenza strain. Laboratory tests could also identify other novel influenza A viruses. Public health response to such test results would be based on what is known about the potential pathogenicity and transmissibility of the particular influenza strain that is identified. When this document uses the terms “novel influenza virus” or “pandemic virus,” it is referring to influenza strains (including H5N1) for which humans do not have immunity, with established or potential human pathogenicity and transmissibility.

Planning Strategies

MDH and other state agencies involved in preparing for and responding to an influenza pandemic are planning for strategies that will limit the spread of a pandemic; mitigate disease, suffering, and death; and sustain infrastructure and ultimately lessen the impact on the economy and communities.

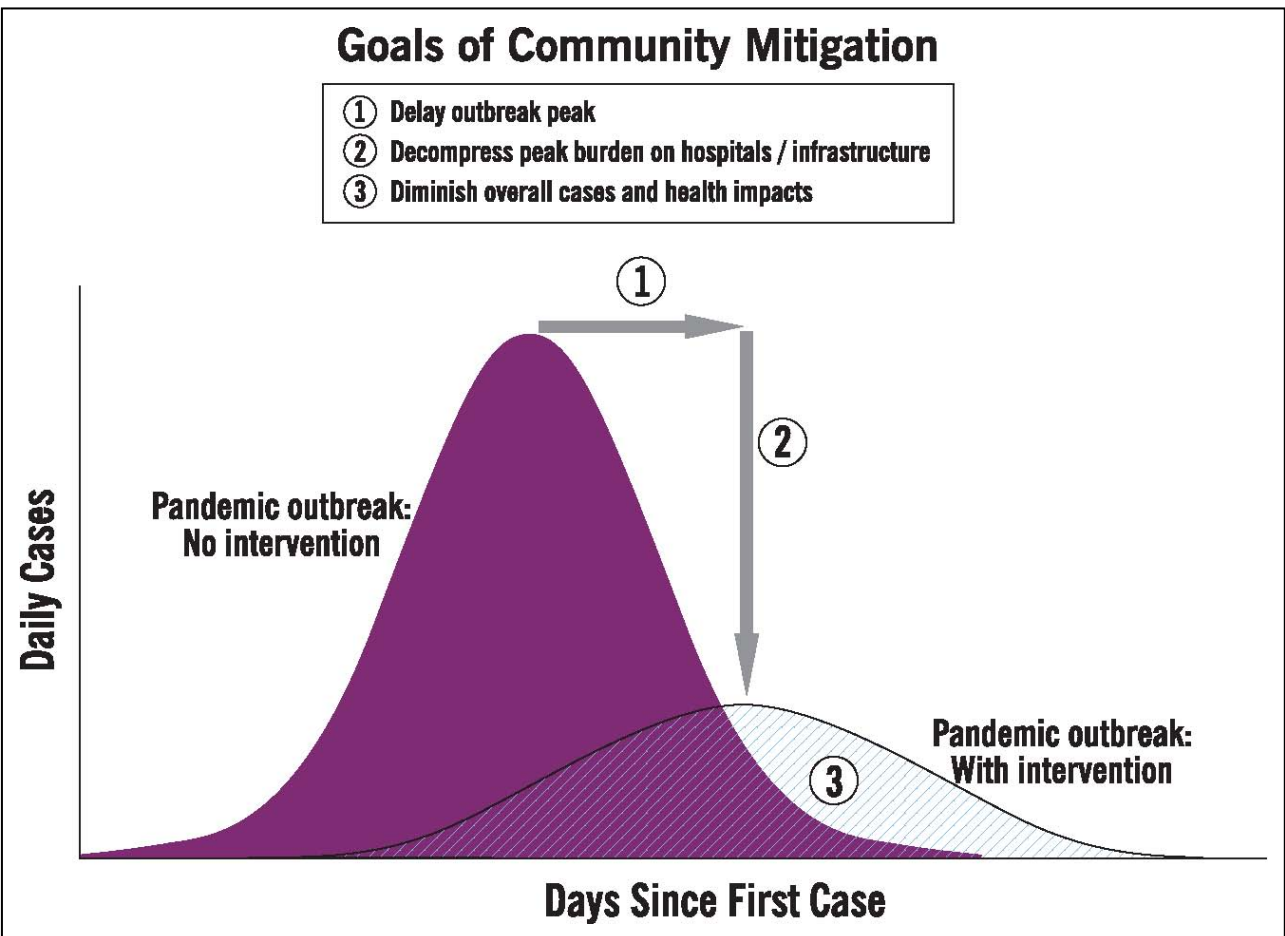
The most effective disease prevention measure in a pandemic, a well-matched vaccine, will likely be unavailable when a pandemic begins². Given current vaccine technology, a pandemic strain vaccine would not be available for at least six months after the beginning of a pandemic. Moreover, once a vaccine is developed and produced, there initially will be insufficient quantities to cover the entire U.S. population.

A pre-pandemic vaccine may be available at the onset of a pandemic; however, there is no guarantee that it will be effective against the novel strain. Still, if the pre-pandemic vaccine did prove to be effective, stockpiles of such a vaccine may only be available for a small portion of the population³.

A second measure, use of antiviral medication for the treatment of ill individuals and prophylaxis of exposed individuals, may have significant limitations because it is not known whether antivirals will be effective against a pandemic strain (e.g., potential resistance of strain to antiviral drugs). Furthermore, as with a pandemic vaccine, there may not be a sufficient supply of antivirals for the entire U.S. population.

A third strategy, implementation of infection control and social distancing measures, known as non-pharmaceutical interventions (NPI), could significantly help to delay the upswing of cases, lower the peak of the epidemic, and allow a better match between the number of ill people and the availability of healthcare resources^{4,5} (see Figure 1). However, applying these types of interventions may pose significant challenges and social costs (e.g., feasibility, economic impact).

According to HHS, “Mathematical modeling of pandemic influenza scenarios in the United States, however, suggests that pandemic mitigation strategies utilizing multiple NPIs may decrease transmission substantially and that even greater reductions may be achieved when such measures are combined with the targeted use of antiviral medications for treatment and prophylaxis. Recent preliminary analyses of cities affected by the 1918 pandemic show a highly significant association between the early use of multiple NPIs and reductions in peak and overall death rates. The rational targeting and layering of interventions, especially if these can be implemented before local epidemics have demonstrated exponential growth, provide hope that the effects of a severe pandemic can be mitigated. It will be critical to *target* those at the nexus of transmission and to *layer* multiple interventions together to reduce transmission to the greatest extent possible.”⁶

Figure 1. Goals of Community Mitigation

Purpose

The purpose of the *Minnesota Department of Health (MDH) Interim Supplement on Mitigation Strategies: Use of Non-pharmaceutical Interventions* is to provide an operational plan for MDH to implement non-pharmaceutical interventions that might be useful during a pandemic in order to reduce morbidity, mortality, and social disruption and to help ensure a continuation of essential societal functions.

Primary Objectives

The *MDH Interim Supplement on Mitigation Strategies: Use of Non-pharmaceutical Interventions* has six primary objectives:

1. Identify criteria/trigger points for initiating the use of non-pharmaceutical interventions (NPI) in Minnesota. MDH will refine these criteria, though the epidemiology of a novel influenza virus will guide implementation of NPI strategies in a pandemic.
2. Define the NPI strategies that may be used to limit or slow an influenza pandemic in Minnesota.
3. Describe MDH's key NPI activities.
4. Identify MDH staff roles and responsibilities for key NPI activities.
5. Identify roles and responsibilities for local and regional partners for NPI activities. *(In development)*
6. Provide guidance to support roles and responsibilities for local and regional partners. *(In development)*

Organization

The *Interim Supplement on Mitigation Strategies: Use of Non-pharmaceutical Interventions* is organized into three sections:

1. **Basic Plan Overview:** An overview of MDH planning and implementation of non-pharmaceutical intervention strategies. This component gives background information, purpose, scope, cites legal authorities, and explains general concepts of operation.
2. **Technical Annexes:** Four stand-alone annexes identifying MDH's key activities:
 - I. Isolation of Ill People at Home
 - II. Quarantine of Close Contacts and Household Members in Homes with an Ill Person
 - III. Social Distancing of Adults in Workplace and Community Settings
 - IV. Social Distancing of Children, Adolescents, and Post-Secondary Students
3. **Attachments:** Additional resources and other supporting information. (*In development*)
 - A. Job Action Sheets
 - B. Resources
 - B-1. Standard Operating Guidelines
 - B-2. Policies
 - B-3. Web Links/Addresses
 - C. Local and Regional Partner Roles and Responsibilities
 - D. Local and Regional Guidance Documents
 - E. Supplement Command Structure
 - F. Supplement Notification Structure

Scope

The Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management (HSEM) is the lead coordinating agency during any statewide emergency including an influenza pandemic. MDH works closely with HSEM as well as with other state and local partners and will continue to do so during a pandemic.

MDH is a lead technical agency in the state during a pandemic or other health-related emergency^{7,8}. As the lead public health agency, MDH is responsible for protecting, maintaining, and improving the health of all Minnesotans. There is a strong state-local partnership in which MDH provides technical leadership and guidance to front-line public health and private health care entities.

Further responsibilities are delineated in the *MDH Pandemic Influenza Plan* and *MDH All-Hazards Response and Recovery Plan*. Adherence to these plans will provide the basis for MDH's complete response to a pandemic.

Authority

General

Chapter 12 of Minnesota Statutes grants the Governor and HSEM overall responsibility for preparing for and responding to emergencies and disasters. Chapter 12 directs the Governor and HSEM to develop and maintain a comprehensive state emergency operations plan, known as the Minnesota Emergency Operations Plan (MEOP).

In April 2004, under the Chapter 12 statutory authority, Governor Tim Pawlenty issued Executive Order 04-04, "*Assigning Emergency Responsibilities to State Agencies*." This order outlines the responsibilities that state agencies including MDH have during an emergency (natural or man-made). Details on the roles and

responsibilities of MDH are available on page 6 of Executive Order 04-04 and in the MEOP Highly Pathogenic Avian Influenza (HPAI) and Pandemic Influenza Supplement⁹.

Additionally, Minnesota statutes grant the Commissioner of Health broad authority to protect, maintain, and improve the health of the public. The majority of the Commissioner's statutory powers relevant to health-related emergencies including pandemic influenza are set forth in Chapters 144, 145, 145A, and 157 of Minnesota Statutes¹⁰.

Non-pharmaceutical Interventions

Isolation and Quarantine

Minnesota anticipates that most isolation and quarantine will occur without the need for legal orders. However, if a legal order is necessary, statutory authority is in place. Ramsey County District Court, by statute, has statewide jurisdiction for isolation and quarantine actions in Minnesota.

- Authority for legal orders of isolation and quarantine are found in Minn. Stat., sections 144.419 through 144.4196¹¹. The Commissioner of Health is given the authority to seek these orders, and to issue temporary holds pending court determination.
- Although the Commissioner may delegate authority to seek specified isolation and quarantine orders to local boards of public health under Minn. Stat., section 144.4195, subd. 7, there are no delegations of authority to seek orders at this time.
- Minn. Stat., section 144.419 specifies essential services for people in isolation and quarantine (e.g., ensuring they have food and a means of communication with health officials and others). It also requires health status monitoring of individuals in I/Q on a regular basis.
- Under Minn. Stat., section 144.4196, an employer may not discharge or penalize an employee who has been in isolation or quarantine under an order or a written recommendation of the Commissioner of Health.
- Minn. Stat., sections 12.39 and 144.419, subd. 4, address isolation and quarantine of individuals who refuse to submit to medical procedures ordered by the Commissioner of Health. Minn. Stat., section 12.39 applies under specified circumstances in a declared national security or peacetime emergency, while section 144.419, subd. 4, is applicable at all times.

Federal authority also is in place for isolation and quarantine, and primarily would be used (1) for international travelers entering Minnesota, (2) in federal facilities, and (3) on certain Indian lands. Isolation and quarantine may occur on Indian lands in Minnesota at the request of federal or state authorities. MDH will work with Tribal Health Directors, as well as CDC and the Indian Health Service, to make recommendations on and otherwise support disease containment measures on Minnesota's 11 federally recognized Indian reservations. MDH will work closely with CDC Quarantine Station officials at the Minneapolis-St. Paul International Airport (MSP) to assist with disease containment measures for passengers arriving on international or other flights.

Social Distancing

The Governor will be advised on decisions related to social distancing measures such as school closing and cancellation of public events by the Commissioners of Health, Education, Public Safety, and Human Services. If appropriate under the specific circumstances, an aggressive and pro-active approach to closures will be taken in order to mitigate the impact of a pandemic. The timing and duration of closures will occur with epidemiological input from MDH and logistical input from the Department of Education (MDE) and HSEM. Epidemiological data will be considered as it becomes available; however, specific data may not be available until the end of a pandemic.

The decision to re-open schools and any other facilities/activities that have been closed or suspended will be based on scientific and epidemiological information including the progression and severity of a pandemic.

The Governor will be advised on re-opening by the Commissioners of Health, Education, Public Safety, and Human Services.

- Under Minn. Stat., section 12.21, subd. 3(11) of the Minnesota Emergency Management Act of 1996, the Governor may authorize the Commissioner of Education to alter school schedules, curtail school activities or order schools closed for public elementary and secondary schools including public charter schools, pre-kindergarten programs and vocational center schools.
- Under Minn. Stat., section 12.21, subs. 3(1) and (7), if specific emergency conditions warrant, the Governor has authority to direct closure or institute limitations relating to public and private post-secondary educational facilities, and private elementary and secondary school facilities.
- If appropriate under the specific circumstances, the Department of Human Services (which regulates daycare centers) will apply the same recommendations for school closings to daycare facilities. If necessary, the Governor may issue appropriate orders or rules under Minn. Stat., section 12.21, subs. 3(1) and (7) in relation to the emergency.
- The Governor has authority to request the Commissioner of Education to rescind all or part of a school closure order.
- Under Minn. Stat., section 12.21, subs. 3(1) and (7), if emergency conditions warrant, the Governor has authority to limit public gatherings, movement of the public, and occupancy of facilities. Although any order would be viewpoint neutral, the order could impact religious gatherings and gatherings in other places where large groups of people congregate in close quarters.
- Unless the federal government declares a national security emergency, the Governor will declare a peacetime emergency under Minn. Stat., section 12.31, subd. 2. The peacetime emergency can continue up to 5 days based on the Governor's declaration. The peacetime emergency may be extended up to 30 days by the Executive Council (the Governor, Lieutenant Governor, Attorney General, Secretary of State and State Auditor). The Legislature must be called into session for any peacetime emergency past 35 days and may act to terminate a peacetime emergency and any orders or rules issued pursuant to the emergency.

Concept of Operations

The *MDH Interim Supplement on Mitigation Strategies: Use of Non-pharmaceutical Interventions* is a supplement to the *MDH Pandemic Influenza Plan*, developed by the Infectious Disease, Epidemiology, Prevention and Control Division (IDEPC). The *Pandemic Influenza Plan* will serve as the disease-specific operational plan during a pandemic for MDH. However, the *MDH All-Hazards Response and Recovery Plan* (All-Hazards Plan) developed by the Office of Emergency Preparedness (OEP), will be the overarching operational plan for MDH during an emergency including a pandemic.

This supplement uses the pandemic phases/stages defined by the World Health Organization (WHO), U.S. government, and HSEM in order to facilitate a coordinated approach to non-pharmaceutical interventions. This supplement also uses the CDC Pandemic Severity Index (PSI) to help define when the recommended NPIs should occur. The PSI uses the case fatality ratio as the key component for categorizing the severity of a pandemic. It is designed to estimate the severity of a pandemic on a population as a whole in order to better predict the impact of the pandemic and to ensure recommendations on the use of interventions are matched to the severity level¹².

Decision Making Structure

Attachment F-1 to this supplement reflects the decision making structure for statewide recommendations for non-pharmaceutical interventions (NPIs). By definition, such interventions only would be implemented when it appears that a pandemic is imminent. Thus, it is assumed that the MDH Department Operations Center (DOC) and the State Emergency Operations Center (SEOC) will be partially or fully activated. The DOC Planning and Intelligence Chief will initiate the process for approval of statewide NPI recommendations by communicating the recommendations to the MDH DOC Incident Manager and MDH SEOC Representative.

The recommendations will then be communicated to the SEOC Incident Commander who will communicate them to the Governor's Appointed Representative for Executive Level (Governor) approval. Once an Executive Level decision is made, the decision will be communicated in reverse order of the recommendation for implementation. The red line on Attachment F-1 reflects the flow of a recommendation. The green line reflects the flow of a decision for implementation. Decisions will be communicated internally and externally (e.g., local public health [LPH], health care systems, etc.) in accordance with the *MDH All-Hazards Response and Recovery Plan*.

Attachment F-1 only applies to statewide NPI recommendations. It does not apply to recommendations made to a specific individual(s) or specific groups of individuals for isolation or quarantine.

Minnesota, U.S., and Global Pandemic Phases/Stages

The NPI strategies discussed in this document are aligned with the (listed below):

- World Health Organization (WHO) phases of a pandemic
- United States stages of a pandemic
- Minnesota Response phases of a pandemic

In actual practice, the distinction between the various phases or stages of a pandemic due to influenza may be blurred or shift in a matter of hours, which underscores the need for flexibility. Recognizing that distinctions between the phases may be unclear, classification is based on assessment of risk and available scientific and epidemiological data.

Global Preparedness Planning

The WHO has defined six phases, occurring before and during a pandemic, that are linked to the characteristics of a new influenza virus and its spread through the population. These phases are described below:

Inter-Pandemic Period

Phase 1: No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human disease is considered to be low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

Pandemic Alert Period

Phase 3: Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 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).

Pandemic Period

Phase 6: Pandemic phase: increased and sustained transmission in general population.

U.S. Preparedness Planning

The WHO phases provide succinct statements about the global risk for a pandemic and provide benchmarks against which to measure global response capabilities. However, to describe the U.S. government's approach to the pandemic response, it is more useful to characterize the stages of an outbreak in terms of the immediate

and specific threat a pandemic virus poses to the U.S. population. The following stages provide a framework for federal government actions:

- Stage 0: New Domestic Animal Outbreak in At-Risk Country
- Stage 1: Suspected Human Outbreak Overseas
- Stage 2: Confirmed Human Outbreak Overseas
- Stage 3: Widespread Human Outbreaks in Multiple Locations Overseas
- Stage 4: First Human Case in North America
- Stage 5: Spread throughout United States
- Stage 6: Recovery and Preparation for Subsequent Waves

Minnesota Preparedness Planning

The U.S. government's approach to the pandemic response is in terms of the immediate and specific threat a pandemic virus poses to the U.S. population. However, HSEM has classified the actions state agencies would take during a pandemic. The following phases provide a framework for Minnesota's actions:

- Phase P0: Suspected Human Outbreak Overseas
- Phase P1: Confirmed, Sustained Human-to-Human Transmission Overseas
- Phase P2: Suspected or Confirmed Human Case in North America
- Phase P3: Outbreak in United States
- Phase P4: Suspected or Confirmed Human Case in Minnesota
- Phase P5: Limited Outbreak in Minnesota
- Phase P6: Widespread Outbreak in Minnesota
- Phase P7: Recovery and Preparation for Subsequent Waves

This supplement separates Minnesota Response Phase P5 into P5A and P5B for purposes of how isolation and quarantine are implemented. Both phases involve a laboratory-confirmed cluster of cases with a novel influenza virus. Response phase P5A refers to the first cluster in Minnesota in which the cases have epidemiologic links to each other. Response phase P5B refers to the first cluster in which the cases have no epidemiologic links to each other. MDH recognizes that the distinction between P5A and P5B may be blurred or shift in a very short time period.

Pandemic Severity Index (PSI)

Appropriate matching of NPIs to the severity of a pandemic is important in order to maximize the public health benefit that may result from using early, targeted, and layered strategies while minimizing secondary effects¹³.

The CDC (Director) will designate the PSI with five categories of increasing severity (Figure 3) based on the estimated case fatality ratio (this ratio reflects the percent of people with disease who have died from the disease). A case fatality ratio is a measurement that is useful in estimating the severity of a pandemic and which may be available early in a pandemic for small clusters and outbreaks. An excess mortality rate may also be available early in a pandemic and may supplement and inform the determination of the PSI¹⁴.

It would be of questionable value to calculate a Minnesota-specific case fatality ratio as it would be unlikely that there would be vast differences within the U.S. As such, the declaration of a PSI category would be applicable to the whole country and not vary by region or state. However, if CDC were to ask states to try to calculate case fatality ratios, MDH would utilize hospitals and/or clinic systems to determine that ratio. CDC comments that, pending the designation of the PSI category, communities facing imminent arrival of

pandemic disease will be able to define for themselves which pandemic mitigation intervention(s) are indicated for implementation based on the level of pandemic severity.

Figure 3. Pandemic Severity Index (PSI)

Characteristics	Pandemic Severity Index (PSI)				
	Category 1	Category 2	Category 3	Category 4	Category 5
Case Fatality Ratio (percentage)	<0.1	0.1-<0.5	0.5-<1.0	1.0-<2.0	≥2.0
Excess Death Rate (per 100,000)	<30	30-<150	150-<300	300-<600	≥600
Illness Rate (percentage of the population)	20-40	20-40	20-40	20-40	20-40
Potential Number of Deaths (based on 2006 U.S. population)	<90,000	90,000-<450,000	450,000-<900,000	900,000-<1.8 million	≥1.8 million
20 th Century U.S. Experience	Seasonal Influenza (illness rate 5-20%)	1957,1968	None	None	1918 Pandemic

Triggers

Timing of the initiation of NPIs will greatly impact their effectiveness. Implementing interventions prior to a pandemic may cause compliance fatigue, economic hardship, and social hardship without a benefit to public health. Equally important, implementation after the spread of a pandemic may limit the public health benefits of NPIs.

The CDC indicates the primary trigger for initiating interventions is the arrival and transmission of a pandemic virus. That trigger is defined by a laboratory-confirmed cluster of cases infected by a novel virus with evidence of community transmission (epidemiologically linked cases from more than one household). The average number of new infections resulting from a single infected person and the illness rate are additional factors that can inform public health decision-makers¹⁵.

The pandemic will continue as long as there are a large number of susceptible individuals. Non-pharmaceutical interventions that have been in place will need to be reevaluated on an ongoing basis to determine whether the interventions should be continued, modified or ceased. This answer will be aided by a clear understanding of the pandemic within Minnesota, regionally in the Midwest, and in the U.S. as a whole. Special disease surveillance must be set up during a pandemic to provide data to help guide this decision. (MDH's plan for surveillance in a pandemic is in Technical Section B of the *MDH Pandemic Influenza Plan*. Currently, MDH conducts surveillance for influenza-like illness through thirty-one hospitals and clinics throughout the state. MDH plans to expand the number of sentinel sites.)

Geospatial-Temporal Boundaries/Regions

Geospatial-temporal boundaries/regions are complex and go beyond proximity and include ease, speed, and volume of travel between jurisdictions. CDC connects the trigger points for NPIs to geospatial-temporal boundaries and defines the geographic trigger as a “cluster of cases occurring within a U.S. state or proximate epidemiological region”¹⁶.

In Minnesota, the primary activation trigger for initiating NPIs is anticipated to be the arrival and transmission of pandemic virus in Minnesota, or in areas linked to Minnesota by geospatial clustering. Defining the geospatial-temporal boundaries/regions is difficult. Some may be very clear such as cross-border clusters between Duluth and Superior, Wisconsin, or Moorhead and Fargo, North Dakota. Others may be less clear, such as scattered cases in southern Minnesota with tenuous links to scattered cases in northern Iowa. Cases and possible clusters will need to be investigated at the time, and inform the trigger that will be determined by MDH in accordance with the Technical Annexes in this Supplement.

Response Actions

The time between recognition of a pandemic and implementation of interventions is critical. To emphasize the importance of timing, CDC has introduced the terminology of Alert, Standby, and Activate which reflect the escalation of response actions (Figure 4)¹⁷.

- *Alert*: notification of critical systems and personnel of their impending activation
- *Standby*: initiation of decision-making processes for imminent activation, including mobilization of resources and personnel
- *Activate*: implementation of the specified pandemic mitigation interventions

CDC concludes it will be prudent to plan for rapid succession of these actions given the potential exponential spread of a pandemic virus.

Figure 4. Response Actions

Pandemic Severity Index	WHO Phase 6, U.S. Government stage 3*	WHO Phase 6, U.S. Government Stage 4† and First human case in the United States	WHO Phase 6, U.S. Government Stage 5§ and First laboratory confirmed cluster in state or region¶
1	Alert	Standby	Activate
2 and 3	Alert	Standby	Activate
4 and 5	Standby**	Standby/Activate††	Activate

Alert: Notification of critical systems and personnel of their impending activation.

Standby: Initiate decision-making processes for imminent activation, including mobilization of resources and personnel.

Activate: Implementation of the community mitigation strategy.

*Widespread human outbreaks in multiple locations overseas.

†First human case in North America.

§Spread throughout the United States.

¶Recommendations for regional planning acknowledge the tight linkages that may exist between cities and metropolitan areas that are not encompassed within state boundaries.

**Standby applies. However, Alert actions for Category 4 and 5 should occur during WHO Phase 5, which corresponds to U.S. Government Stage 2.

††Standby/Activate Standby applies unless the laboratory-confirmed case cluster and community transmission occurs within a given jurisdiction, in which case that jurisdiction should proceed directly to Activate community interventions defined in Table 2.

Mitigation Strategies

Mitigation strategies developed by the HHS propose a framework that is based on an early, targeted, and layered strategy that will include direct application of several partially effective NPI measures¹⁸. All strategies should include good hand hygiene, respiratory/cough etiquette and use of personal protective equipment (PPE) as indicated. CDC notes that specific community face-mask and respirator use guidance is forthcoming, as is guidance for workplaces.

These strategies include (Figure 5):

1. **Isolation** and treatment with antiviral medications (as appropriate and feasible) of all people with confirmed or probable pandemic influenza.
2. Voluntary home **quarantine** of household members of people with confirmed or probable pandemic influenza.
3. **Social distancing** of children, adolescents, and post-secondary students through dismissal from school (including public and private primary, secondary, and post-secondary schools), cancellation of school-based activities, and closure of childcare programs.
4. **Social distancing** measures to reduce contact between people in both community and workplace settings.

These interventions are separately discussed in the four Technical Annexes to this supplement. However, once CDC declares the PSI category for a pandemic (or earlier if circumstances warrant), MDH will make a recommendation for an overall package of NPIs (from these four intervention groups) for approval in accordance with the decision making structure in Attachment F-1. The Alert, Standby, and Activate response actions will occur simultaneously for the entire package of NPIs despite the fact that these response actions are detailed separately in each Technical Annex.

Figure 5. Interventions by Pandemic Severity Index

Pandemic Severity Index			
Interventions* by Setting	1	2 and 3	4 and 5
Home Voluntary isolation of ill at home (adults and children); combine with use of antiviral treatment as available and indicated	Recommend †§	Recommend †§	Recommend †§
Voluntary quarantine of household members in homes with ill persons¶ (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient	Generally not recommended	Consider **	Recommend **
School Child social distancing -dismissal of students from schools and school based activities, and closure of child care programs -reduce out-of-school social contacts and community mixing	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks §§
Workplace / Community Adult social distancing -decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings) -increase distance between persons (e.g., reduce density in public transit, workplace) -modify postpone, or cancel selected public gatherings to promote social distance (e.g., postpone indoor stadium events, theatre performances) -modify work place schedules and practices (e.g., telework, staggered shifts)	Generally not recommended	Consider	Recommend

Generally Not Recommended = Unless there is a compelling rationale for specific populations or jurisdictions, measures are generally not recommended for entire populations as the consequences may outweigh the benefits.

Consider = Important to consider these alternatives as part of a prudent planning strategy, considering characteristics of the pandemic, such as age-specific illness rate, geographic distribution, and the magnitude of adverse consequences. These factors may vary globally, nationally, and locally.

Recommended = Generally recommended as an important component of the planning strategy.

*All these interventions should be used in combination with other infection control measures, including hand hygiene, cough etiquette, and personal protective equipment such as face masks. Additional information on infection control measures is available at www.pandemicflu.gov.

†This intervention may be combined with the treatment of sick individuals using antiviral medications and with vaccine campaigns, if supplies are available.

§Many sick individuals who are not critically ill may be managed safely at home.

¶The contribution made by contact with asymptotically infected individuals to disease transmission is unclear. Household members in homes with ill persons may be at increased risk of contracting pandemic disease from an ill household member. These household members may have asymptomatic illness and may be able to shed influenza virus that promotes community disease transmission. Therefore, household members of homes with sick individuals would be advised to stay home.

**To facilitate compliance and decrease risk of household transmission, this intervention may be combined with provision of antiviral medications to household contacts, depending on drug availability, feasibility of distribution, and effectiveness; policy recommendations for antiviral prophylaxis are addressed in a separate guidance document.

††Consider short-term implementation of this measure—that is, less than 4 weeks.

§§Plan for prolonged implementation of this measure—that is, 1 to 3 months; actual duration may vary depending on transmission in the community as the pandemic wave is expected to last 6-8 weeks.

Isolation

Isolation refers to the separation or restriction of movement of people with a communicable disease in order to prevent disease transmission to others. It reduces contact between people who are infected and those who are not infected. MDH will recommend isolation of people who meet the case definition for a novel influenza virus during all WHO pandemic alert period phases (phases 3-5) and of people who are symptomatic for influenza in the pandemic period (phase 6). However, the manner in which isolation is implemented will be different before as opposed to after evidence of community transmission in the state.

Prior to a laboratory-confirmed cluster of infection with a novel influenza virus and evidence of community transmission in Minnesota (e.g. prior to the trigger for community-wide mitigation measures), isolation will be used as a disease containment measure and will be based on individual case identification. MDH recognizes that case identification will most likely start with a report from a clinician. Because of this, MDH has developed an algorithm for identifying suspect cases of H5N1 or other novel influenza viruses (**Attachment B-3a**). MDH has distributed the algorithm to hospitals and clinics throughout the state. It also is on the MDH website as is the MDH screening form for suspect H5N1 influenza. The algorithm will be updated as necessary. Isolation will occur at a person's home, or if the person requires hospitalization, in a hospital setting. This intervention will likely be combined with the use of antiviral medications for treatment, if such medications are effective, available, and in accordance with Minnesota's ethical framework for allocation of antiviral medication. During this pre-evidence of community transmission period, MDH will monitor the health status of people in isolation and local public health (LPH) will provide assurance that their essential needs are met. Monitoring and quarantine of household members and close contacts of cases during this pre-community transmission period is addressed in Technical Annex 2 of this supplement: "Quarantine of Close Contacts and Household Members in Homes Where a Person is Ill."

Once there is evidence of community transmission in Minnesota (or its geospatial-temporal region), MDH will no longer monitor individual cases or their close contacts, and containment will not likely be possible. MDH will request, on a statewide basis, (through media; the Health Alert Network [currently in place from local public health to hospitals and clinics with direct alert to hospitals under development]; and listserv messages to Infection Control Professionals and Infectious Disease Physicians) that people symptomatic for pandemic influenza, but who do not require hospitalization, isolate themselves by staying home. This intervention may be accompanied by the use of antiviral medications for treatment (as appropriate). In order to distribute antiviral medication to non-hospitalized people who are ill, MDH is exploring various distribution methods. The competing issues in identifying appropriate distribution methods include possible use of alternative health care or community settings, avoiding congregation of individuals at sites, and the necessity of rapid distribution because of the short window for antiviral efficacy. During the time that MDH requests self-isolation for symptomatic people on a statewide basis, MDH will also ensure that instructions for home care are widely available. Instructions will include information on when to seek emergency and non-emergency medical care and the importance of self-isolation at home for people who are sick. MDH and our

partners are exploring options for medical screening/evaluation of people who are ill including possible use of fever/influenza clinics.

CDC observes that requirements for the success of isolation, as an NPI, for people who are sick on a community-wide basis include:

- Prompt recognition of illness.
- Appropriate use of hand hygiene and infection control in the home setting (specific guidance from the CDC is forthcoming).
- Measures to promote voluntary compliance (e.g. timely and effective risk communication).
- Commitment of employers to support the recommendation that ill employees stay home.
- Support for the financial, social, physical and mental health needs of patients and caregivers.
- Clear, concise information about how to care for an ill individual in the home and when and where to seek medical care.
- Special planning for individuals who live alone, as many may be unable to care for themselves if ill.

The CDC-recommended trigger for activating recommendations for self-isolation on a community-wide basis is a laboratory confirmed cluster of infection with a novel influenza virus and evidence of community transmission (epidemiologically linked cases from more than one household). MDH anticipates departing slightly from this trigger. At the present time, MDH plans to conduct a more intensive form of isolation when cases are still epidemiologically linked. This more intensive form of isolation couples individual case ascertainment with MDH monitoring of the case. MDH anticipates activating recommendations, on a statewide basis, for self-isolation (without MDH monitoring) when the first cluster with no epidemiologic link is identified. MDH recognizes that the distinction between a trigger of linked cases from more than one household (CDC trigger) and the first cluster with no epidemiologic link (MDH trigger for moving to recommendation for self-isolation with no monitoring) may be blurred if a pandemic is rapidly unfolding. This underlines the fact that epidemiologic data at the time will guide actual recommendations.

The duration of isolation will be for the period that the person is infectious, approximately 7-10 days after symptom onset. This time period is subject to change as determined by expert opinion. Epidemiologic characteristics of the virus will dictate the actual duration for isolation.

MDH anticipates that isolation will be voluntary. However, there may be circumstances where legal action may be warranted, in the period before there is evidence of community transmission of a pandemic virus in Minnesota or its geospatial-temporal region.

Quarantine

Quarantine refers to the separation or restriction of movement of people who have been exposed to a communicable disease but who are not ill, in order to prevent the spread of disease. MDH will recommend management of household members and close contacts of cases through monitoring alone (monitoring of health status without quarantine) or quarantine with monitoring during all WHO pandemic alert period phases (phases 3-5). During WHO Phase 6, monitoring alone or quarantine with monitoring likely will continue through Minnesota Response Phase P5a. When Minnesota Response Phase P5b occurs (evidence of community transmission in Minnesota), the MDH will recommend self-quarantine of people in a household with an ill family member on a statewide basis. Quarantine is expected to occur at a person's home.

The manner in which quarantine is implemented will be different before as opposed to after MDH identifies evidence of community transmission. Prior to Minnesota Response Phase 5b, quarantine will be based on identification of the close contacts (including household members) of individual cases. This intervention may be combined with the use of antiviral medications for prophylaxis, if such medications are effective, sufficient in quantity, and in accordance with Minnesota's ethical framework for allocation of antiviral medications. MDH or LPH will monitor people in quarantine for health status. LPH will provide assurance that their essential needs are met.

Once there is evidence of community transmission in Minnesota (Minnesota Response Phase P5b), MDH and LPH will no longer monitor people in quarantine. Instead, MDH (guided by the CDC PSI) will request, on a statewide basis through media and other channels, that household members of people who are ill self-quarantine. Under the CDC PSI, self-quarantine is generally not recommended during the pandemic for a Category 1 Pandemic, should be considered for a Category 2/3 Pandemic, and is recommended for a Category 4/5 Pandemic. MDH may also consider recommending self-quarantine for a Category 1 pandemic. The intervention will consist of MDH requesting that household members, in homes with an ill person, quarantine themselves by staying home. Quarantine may be accompanied by the use of antiviral medications (as appropriate). CDC recommendations for self-quarantine during a pandemic focus on household members of people who are ill and do not include self-quarantine of close contacts of the case. MDH home care instructions will include information on self-quarantine at home for household members of an ill person.

CDC observes that requirements for the success of quarantine as an NPI include:

- Prompt identification of an ill person in the household.
- Voluntary compliance with quarantine by household members.
- Measures to promote voluntary compliance (e.g. timely and effective risk communication).
- Commitment of employers to support the recommendation that employees living in a household with an ill individual stay home.
- Support for the financial, social, physical and mental health needs of households under voluntary quarantine.
- Clear, concise information about how to care for an ill individual in the home and when and where to seek medical care.
- Appropriate use of hygiene and infection control in the home setting (specific guidance from the CDC is forthcoming).

The CDC-recommended trigger for activating recommendations for self-quarantine of household members of an ill person on a community-wide basis is a laboratory confirmed cluster of infection with a novel influenza virus and evidence of community transmission (epidemiologically linked cases from more than one household). As with isolation, MDH anticipates departing slightly from this trigger. At the present time, MDH plans to conduct a more intensive form of quarantine when cases are still epidemiologically linked. This more intensive form of quarantine couples quarantine of household and other close contacts of an identified case with MDH or LPH monitoring of the contacts. It will activate recommendations for statewide self-quarantine of household members of a person who is ill with influenza-like illness (no monitoring by MDH or LPH) when the first cluster(s) with no epidemiologic link is identified.

The duration of quarantine likely will be for one incubation period, approximately 7 days after the time of symptom onset in the household member. If other family members become ill during this period, CDC's current recommendation is to extend the period of voluntary home quarantine for another incubation period, 7 days from the time that the last family member becomes ill. Epidemiologic characteristics of the pandemic virus will dictate the actual duration of self-quarantine for people with an ill household member.

MDH anticipates that quarantine will be voluntary. However, there may be circumstances where legal action may be warranted, in the period before a pandemic virus is established in Minnesota.

Social Distancing

Interventions to mitigate a pandemic using social distancing measures are aimed at reducing transmission by increasing the distance among people in work, community, and school settings. CDC defines "social distancing" as "measures to increase the space between people and decrease the frequency of contact among people." Efforts to actually eliminate transmission at "nodes of high connectivity", (e.g. school closure) may also be warranted depending on the severity of a pandemic.

Adult

The goal of adult social distancing is to reduce transmission in the workplace and the community at large. In general, CDC describes workplace social distancing as altering workplace environments and schedules to decrease social density and preserve a healthy workplace to the greatest extent possible without disrupting essential services. CDC observes that the goals of workplace measures are to reduce transmission in the workplace (and thus into the community at large); to ensure a safe working environment thereby promoting confidence in the workplace; and to maintain business continuity especially for critical infrastructure.

HSEM is the lead state agency for assisting businesses in planning for continuity of operations and workplace social distancing in a pandemic. HSEM issued a Local Jurisdiction Service Continuation Planning Guide and soon will issue a Continuation Planning Guide for Businesses. MDH developed the health and safety sections of these guidance documents including recommendations on workplace social distancing. These guides are referenced in **Attachment D**. HSEM has conducted workshops with businesses and other groups throughout the state to assist them with pandemic planning.

Social distancing in business settings may include establishing policies for telecommuting, staggered shifts, avoiding face-to-face meetings, and prompt exclusion of people with influenza symptoms. Other recommendations include promoting hand hygiene and respiratory etiquette, cleaning of workplace surfaces, use of stairs instead of crowded elevators, avoidance of group situations (e.g. meetings and cafeterias), and curtailing face-to-face customer service unless the service is essential to the health of others.

Businesses/government entities in which employees typically interact with customers should plan for business methods that eliminate such interactions or modify them (e.g. protective barriers in the form of glass or plastic where a service is critical and social distancing is not possible or not practical).

Adult social distancing also may include measures such as cancellation or postponement of large public gatherings (e.g. concerts, theater showings, sporting events, stadium events) and modifications to mass transit to decrease passenger density. Adults also may take individual measures to decrease their risk of infection by minimizing non-essential social contacts and exposure to socially dense environments. If emergency conditions warrant it, social distancing in a pandemic may also include “snow days” in which it is recommended or ordered that only critical activities (e.g. essential to health and safety) continue. Even though CDC talks about community social distancing measures in relation to adults, the measures would apply to any person. MDH has initiated development of a framework for decision making on closures and modified access to public venues, and cancellation of public gatherings. This framework likely will incorporate a “package of interventions” approach that is dependent on the severity of a pandemic. MDH is exploring the advisability and feasibility of mandatory closures/cancellations and/or other approaches.

CDC recommends that adult social distancing be considered for Category 2/3 Pandemics and recommended for Category 4/5 Pandemics. Adult social distancing is not generally recommended for Category 1 Pandemics. Unlike with school closures, CDC does not provide a specific duration period for adult social distancing but suggests that this measure last until the pandemic wave subsides.

CDC comments that healthcare workers may be prime candidates for targeted antiviral prophylaxis once supplies are adequate to support this use. CDC also comments that, beyond the health care arena, employers who have occupational medical services could consider a cache of antiviral drugs in anticipation of a pandemic and provide prophylactic regimens to employees who work in critical infrastructure, occupy business-critical roles, or hold jobs that put them at repeated high-risk exposure to the pandemic virus. CDC observes that this use of antiviral drugs may be considered for inclusion in a comprehensive response and may be coupled with non-pharmaceutical interventions (e.g. social distancing and other community mitigation strategies). Use of antiviral medications in a pandemic will depend on their efficacy and availability. MDH has not yet established priority groups for use of antiviral drugs during a pandemic. The agency has initiated a process for developing an ethical framework for allocation of these drugs in a pandemic.

The CDC-recommended trigger for activating social distancing for adults is a laboratory-confirmed cluster of infection with a novel influenza virus and evidence of community transmission (epidemiologically linked

cases from more than one household). MDH plans to use this trigger. MDH recognizes that, in both the Isolation and the Quarantine Technical Annexes, the trigger for those interventions on a community-wide basis is the first laboratory-confirmed cluster in Minnesota for which the cases have no epidemiological links to each other – a trigger that is different from and later than CDC (epidemiologically linked cases from more than one household) and from the trigger that MDH will use for child and adult social distancing. The rationale is that, for isolation and quarantine, MDH plans to conduct a more intensive form of isolation and quarantine (with MDH/LPH monitoring) when cases are still epidemiologically linked.

CDC notes that requirements for the success of adult social distancing measures as an NPI include:

- Commitment of employers to provide options and make changes in work environments to reduce contacts while maintaining daily operations.
- Support from political and business leaders, and the public.

Child

Child social distancing consists of dismissal of students from schools and school-based activities, and closure of childcare programs. It also encompasses reduction of out-of-school contacts and community mixing. The latter is a critical component of child social distancing since congregating at places other than school could defeat the benefits of school closure in protecting children. CDC recommends that parents be advised that they should protect their children by reducing their social contacts as much as possible when schools are closed. MDH will also recommend infection control measures including hand hygiene and respiratory etiquette not only for children but for all individuals. It is important to note that CDC talks about “dismissal” of students from school rather than “school closure.” CDC recognizes that, if students are dismissed from school but the school building is open, school and education assets may continue to remain operational and potentially of value to the community in other ways.

CDC defines “children” as being 17 years of age or younger, unless they are distinguished from “teens” (adolescents in this document) in which case “children” are 12 years of age or younger. “Childcare” is also defined, and includes care in non-residential settings, large family childcare homes that provide care for 7 or more children in the home of the provider, and small family childcare homes that provide care to 6 or fewer children in the home of the provider. “Schools” refers to public and private elementary, middle, secondary, and post-secondary schools (e.g., colleges, universities, and technical schools).

The CDC rationale for child social distancing is that schools and pre-schools represent socially dense environments. Further, children are particularly important in the transmission of influenza viruses. Compared with adults, children usually shed more influenza virus and shed virus for a longer period of time. Schools serve as amplification points of seasonal community influenza epidemics and children are thought to play a significant role in introducing and transmitting influenza virus in their households. Given the disproportionate contribution of children to influenza transmission, targeting their social networks within and outside of schools would be expected to disproportionately disrupt influenza spread.

The CDC makes the same closure recommendations for colleges and universities as it does for other schools. At the same time, the CDC recognizes that colleges and universities present unique challenges because many aspects of student life and activity encompass factors that are common to both the child school environment (e.g. classroom and dormitory density) and the adult sphere (e.g. commuting for class attendance and participating in behaviors associated with an older student population). CDC recognizes that, at the outset of a pandemic, many parents may want their children who attend colleges and universities to return home, but that these post-secondary schools should also prepare for managing students who may be unable to return home during a pandemic.

CDC recommends that child social distancing be considered on a short-term basis (4 weeks or less) for Category 2/3 Pandemics. It recommends that child social distancing occur on a longer-term basis (12 weeks or less) for Category 4/5 Pandemics. CDC does not generally recommend child social distancing for Category 1 Pandemics.

The CDC-recommended trigger for activating social distancing of children is a laboratory-confirmed cluster of infection with a novel influenza virus and evidence of community transmission (epidemiologically linked cases from more than one household). MDH plans to use this trigger. MDH recognizes that, in both the Isolation and the Quarantine Technical Annexes, the trigger for those interventions on a community-wide basis is the first laboratory-confirmed cluster in Minnesota for which the cases have no epidemiological links to each other – a trigger that is different from and later than CDC (epidemiologically linked cases from more than one household) and from the trigger that MDH will use for child social distancing.

It is anticipated that Minnesota will take a statewide approach to closure of schools and school-based activities. The Governor will be advised on school closing decisions by the Commissioners of Health, Education, Public Safety, Human Services and Higher Education. The timing and duration of school closures will occur with epidemiologic input from the MDH and logistical input from the MDE.

Social distancing to protect children will require community planning to support individuals and families. CDC observes that requirements for the success of child social distancing measures as an NPI include:

- Consistent implementation among all schools in a region affected by an outbreak of pandemic influenza.
- Commitment of the community and parents to keep children from congregating out of school.
- Alternative options for the education and social interaction of children.
- Clear legal authorities for decisions to dismiss students from classes and identification of the actual decision-makers.
- Support for parents and adolescents who need to stay home from work.

The CDC acknowledges that strict confinement of children during a pandemic would raise significant problems for many families and may cause psychosocial stress to children and adolescents. It notes that these considerations must be weighed against the severity of a given pandemic virus to the community at large and to children in particular. In response to a weighing of factors, the CDC states the risk of introduction of an infection into a group and subsequent transmission among group members is directly related to the specification of a “safe” group size. It goes on to note that gatherings of children that are comparable to family size units may be acceptable and could be important in promoting emotional and psychosocial stability. The CDC concludes that if a recommendation for child social distancing is made during a pandemic and families must nevertheless group their children for pragmatic reasons, it is recommended that group sizes be held to a minimum and that mixing between groups should be minimized (e.g. children should not move from group to group or have extended social contacts outside the designated group).

Closing schools and childcare centers may reduce disease transmission but will undoubtedly cause increased hardship to parents and caregivers and could have significant effects on the business sector because parents/caregivers may need to take time off work to care for children. Thus, significant planning must be done to prepare for the potential of school and childcare center closures that could last, in the worst case, for 4-12 weeks.

Assumptions

1. A significant portion of people infected with a pandemic influenza virus may shed virus but be asymptomatic 1-2 days prior to the onset of symptoms.
2. Interventions may be combined with the use of antiviral medications as long as they are effective and sufficient in quantity. (MDH has initiated a process to develop ethical framework(s) for use/allocation of antiviral medications in a pandemic.)
3. Many ill individuals who are not critically ill can and will need to be cared for at home.
4. Ill individuals and their household members will receive clear, concise information on how to provide care in the home.
5. Factors for success of the non-pharmaceutical interventions include:
 - a. prompt recognition of illness;
 - b. appropriate use of infection control practices;

- c. adherence to recommendations for isolation, quarantine, and social distancing;
 - d. measures to promote voluntary compliance (e.g., timely and effective risk communication);
 - e. commitment of employers to support recommendations that ill employees stay home; and
 - f. support for the financial, social, physical, and mental health needs of patients and caregivers.
6. Risk of infection into a group or transmission to a group is directly related to group density/proximity.
7. Gatherings of children that are comparable to family-sized units may be acceptable during social distancing interventions.
8. Many parents may want their children who attend a college or university to return home.
9. Colleges and universities should prepare to manage or assist:
 - a. students returning home in a short time frame; and
 - b. students who may be unable to return home.

Technical Annex 1: Isolation of Ill People at Home

I. Introduction

Purpose

The purpose of this Technical Annex is to address how MDH will implement isolation in the state in an effort to contain a novel influenza virus or mitigate the impact of a pandemic in Minnesota.

Scope

This Technical Annex addresses the operational plan for MDH to implement isolation in the state for a novel influenza virus and in a pandemic. It also addresses how MDH will work with CDC Quarantine Station officials at the Minneapolis-St. Paul International Airport (MSP Airport) and with CDC officials and Olmsted County officials at the Rochester International Airport in the event an arriving passenger meets the case criteria for a novel influenza virus. This Technical Annex does not address isolation of hospitalized patients or infection control for health care providers. Those issues are addressed in the Infection Control Annex to Minnesota’s Pandemic Influenza Plan. Additional MDH Annexes address topics that also will be critical to successful implementation of isolation (e.g. Surveillance Annex, Communications Annex).

Isolation of cases infected with a novel influenza virus may occur prior to the time that the MDH Department Operations Center (DOC) and the State Emergency Operations Center (SEOC) are activated. This would most likely occur prior to WHO Phase 6 if there are individual, sporadic cases with no epidemiologic link.

A. Lead Division, Section, Unit or Office

Division of Infectious Disease Epidemiology, Prevention and Control

B. Internal Support Division(s), Section(s), Unit(s) or Office(s)

Office of Emergency Preparedness (OEP)

MDH Legal Unit

C. External Support

Local Public Health

Local Emergency Managers

CDC Quarantine Officials at MSP

Minnesota Homeland Security and Emergency Management

Minnesota Department of Human Services

American Red Cross

Office of the Minnesota Attorney General

Office of the United States Attorney for the District of Minnesota

D. MDH All-Hazards Annex Interfaces

- | | |
|--|---|
| <input type="checkbox"/> Behavioral Health for Response Staff Annex | <input checked="" type="checkbox"/> Mass Dispensing Annex |
| <input type="checkbox"/> Care of the Dead Annex | <input type="checkbox"/> MDH Workspace Annex |
| <input checked="" type="checkbox"/> Clinical Care Annex | <input checked="" type="checkbox"/> Medical Care Annex |
| <input checked="" type="checkbox"/> Communications Management Annex | <input type="checkbox"/> MN Responds Medical Reserve Corps Annex |
| <input type="checkbox"/> Community Disease Containment Annex | <input type="checkbox"/> Needs Assessment Annex |
| <input type="checkbox"/> Compensation/Claims Unit Annex | <input checked="" type="checkbox"/> Partner/ MDH Communications Annex |
| <input type="checkbox"/> Cost Unit Annex | <input checked="" type="checkbox"/> Patient Care Coordination |
| <input type="checkbox"/> Demobilization Unit Annex | <input type="checkbox"/> Personnel Training Annex |
| <input type="checkbox"/> Disease, Injury, Exposure & Follow-Up Annex | <input type="checkbox"/> Personnel Transportation Annex |

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|--|---|
| <input type="checkbox"/> DOC Communications Annex | <input checked="" type="checkbox"/> Pre-Hospital Care Annex |
| <input type="checkbox"/> Documentation Unit Annex | <input type="checkbox"/> Procurement Unit Annex |
| <input type="checkbox"/> Drinking Water Protection | <input checked="" type="checkbox"/> Public Education & Outreach Annex |
| <input type="checkbox"/> Environmental Hazards Remediation | <input type="checkbox"/> Regulatory Compliance Unit Annex |
| <input type="checkbox"/> Facilities Annex | <input type="checkbox"/> Resources Unit Annex |
| <input type="checkbox"/> Food Safety | <input type="checkbox"/> Sanitation Annex |
| <input type="checkbox"/> Food Unit Annex | <input type="checkbox"/> Security Annex |
| <input type="checkbox"/> Hardware & Systems Support Annex | <input checked="" type="checkbox"/> SNS Coordination |
| <input type="checkbox"/> Health & Safety Annex | <input type="checkbox"/> Staffing/Human Resources Annex |
| <input type="checkbox"/> Health Alert Network Annex | <input type="checkbox"/> Supplies & Equipment Transportation Annex |
| <input type="checkbox"/> Hotline Annex | <input type="checkbox"/> Supplies/Equipment Annex |
| <input checked="" type="checkbox"/> Incident Profiling & Forecasting Annex | <input type="checkbox"/> Tactical Communications Annex |
| <input checked="" type="checkbox"/> Infection Control Annex | <input type="checkbox"/> Time Unit Annex |
| <input type="checkbox"/> Isolation & Quarantine Annex | <input type="checkbox"/> Vector Control |
| <input type="checkbox"/> Just-In-Time Training Annex | <input type="checkbox"/> Victims'/Population Behavioral Health Annex |
| <input checked="" type="checkbox"/> Laboratory | <input type="checkbox"/> Videoconferencing Annex |
| <input type="checkbox"/> Long-Term Follow-Up Protocol Development Annex | |

II. Organizational Structure

A. Command Structure

If the MDH All-Hazards Plan is activated, there is a Clinical Management Unit under Operations in the MDH Incident Command Structure. The Clinical Management Unit has two teams: the Disease Containment Team and the Clinical Infection Control Team (C-ICT). Both teams report to the Clinical Management Unit Leader (CMUL). The CMUL reports to the Operations Chief in the MDH-DOC). A diagram of the structure is in **Attachment E-1 (case-based isolation with monitoring) and Attachment E-3 (recommendation for statewide self-isolation of people who are ill)**.

If the MDH All-Hazards Plan is not activated, the Disease Containment Team (I/Q) and the C-ICT operate in the MDH Division of Infectious Disease Epidemiology, Prevention, and Control (IDEPC). The teams report to the IDEPC Medical Director.

B. Staff Requirements

Staff roles to fulfill this function are:

Clinical Management Unit

Clinical Management Unit Leader (CMUL)

C-ICT:

Clinical Coordinator

Infection Control Coordinator

C-ICT Members

Disease Containment Team (or Isolation and Quarantine [I/Q] Team):

Disease Containment Team Lead (or Isolation and Quarantine [I/Q] Team Lead)

Monitoring Coordinator*

Monitoring Staff*
Monitoring Database Coordinator*
Data Entry Staff*
Essential Services Liaison*
MDH Legal Coordinator
Community Isolation and Quarantine Liaison**

*Denotes functions for isolation and quarantine prior to the time that there is evidence of community transmission of a pandemic influenza virus in Minnesota.

**Denotes function for isolation and quarantine once there is evidence of community transmission of a pandemic influenza virus in Minnesota.

C. Notification Structure

1. Pre-Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Minnesota Response Phases P4 through P5a]

- a. If a reported case is suspicious for a novel influenza virus and warrants laboratory testing by the MDH Public Health Laboratory (MDH-PHL), the CMUL or C-ICT member notifies pre-identified Operational and Management Groups. The Operations Group includes staff who have responsibilities for managing the suspect case and includes the Clinical Coordinator, the Infection Control Coordinator, the Virology/Immunology Laboratory Supervisor, the Disease Containment Team Lead, and the Monitoring Coordinator. The Management Group includes the Division Director for IDEPC, and the Assistant Commissioner for the Health Protection Bureau. A diagram of this notification structure is in Attachment E-2.
- b. The IDEPC Division Director notifies the MDH Commissioner as specified in the MDH All-Hazards Plan.
- c. If the laboratory test is positive for H5N1 or another novel influenza strain by PCR or another laboratory test (or the C-ICT determines that the case should be followed as a suspect case even though the PCR or other test is negative), the CMUL or C-ICT member:
 - Notifies the Operational and Management Groups
 - Activates the MDH I/Q Team. The I/Q Team Leader notifies Monitoring Staff, the Monitoring Database Coordinator, the Essential Services Liaison, the MDH Legal Coordinator, and the appropriate LPH Essential Services Contact(s). The I/Q Team Lead will determine the number of staff necessary for monitoring and whether data entry staff will be notified
 - Notifies the Centers for Disease Control and Prevention
 - If the case traveled on a plane within 72 hours of symptom onset, notifies the CDC Quarantine Station at MSP
- d. If the laboratory test is positive for H5N1 or another novel influenza strain by PCR or another laboratory test (or the C-ICT determines that the case should be followed as a suspect case even though the PCR or other test is negative), the IDEPC Division Director notifies the MDH Commissioner as specified in the MDH All-Hazards Plan.
- e. If the laboratory test is negative, (and the C-ICT determines that the case should not be followed as a suspect case), the C-ICT will notify all staff who were initially notified that testing would occur.

2. Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Minnesota Response Phase P5b and Minnesota Response Phase P6]

- a. When the CMUL, the Surveillance Unit Leader, and the DOC Planning and Intelligence Chief determine that cluster(s) of cases are not epidemiologically linked and that Minnesota

is in Response Phase 5b, the DOC Planning and Intelligence Chief notifies the DOC Manager. The DOC Manager notifies the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative.

- b. The CMUL notifies the Clinical Team Coordinator, the Infection Control Coordinator, and the Disease Containment Team Lead.
- c. The Disease Containment Lead notifies the Community Isolation and Quarantine Liaison.

III. Use of Isolation by Pandemic Stages/Phases

The tables that follow depict MDH implementation of isolation in the WHO, U.S., and Minnesota pandemic stages/phases. This table may change as CDC guidance changes, and as more is known about the effectiveness of non-pharmaceutical interventions and the epidemiology of a novel or pandemic influenza virus.

Pre-Pandemic Novel Influenza Virus

WHO Phase	Minnesota	Isolation
WHO Phase 3 No or Very Limited Human-to-Human Transmission	Suspected/Confirmed Human Case in Minnesota	Isolation of Case with MDH Monitoring
WHO Phase 4 Evidence of Increased Human-to-Human Transmission	Suspected/Confirmed Human Case in Minnesota	Isolation of Case with MDH Monitoring
WHO Phase 5 Evidence of Significant Human-to-Human Transmission	Suspected/Confirmed Human Case in Minnesota	Isolation of Case with MDH Monitoring

Pandemic Virus

WHO Phase	U.S. Stage	MN Response Phase*	Isolation
WHO Phase 6 Efficient and Sustained Human-to-Human Transmission	U.S. Stage 3 Widespread Human Outbreaks in Multiple Locations Overseas	MN Response Phase P1 Sustained Human-to-Human Transmission Overseas	
	U.S. Stage 4 First Human Case in North America	MN Response Phase P2** Suspected/Confirmed Case in North America	
	U.S. Stage 5 Spread Throughout U.S.	MN Response Phase P3 Widespread Outbreak in U.S.	
		MN Response Phase P4 Suspected/Confirmed Human Case in Minnesota	Isolation of Case with MDH Monitoring
		MN Response Phase P5a First Laboratory-confirmed Cluster in Minnesota or Minnesota's Geospatial/Temporal Region-cases have epidemiological links to each other	Isolation of Cases with MDH Monitoring
		MN Response Phase P5b First Laboratory-confirmed Cluster in Minnesota or Minnesota's Geospatial/Temporal Region-cases have NO epidemiological links to each other	Statewide Self-Isolation with No MDH/LPH Monitoring
MN Response Phase P6 Widespread Throughout Minnesota	Statewide Self-Isolation with No MDH/LPH Monitoring		

* Minnesota SEOC and MDH DOC are partially activated in Minnesota Response Phases 2 and 3 and fully activated in Minnesota Response Phases 4, 5, and 6.

** If the first human case in North America is in Minnesota, then Minnesota Response Phase 4 would occur at this point. Case would be isolated with MDH monitoring.

IV. Key Activities for Isolation

A. Use of Isolation (case-based) Prior to Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Minnesota Response Phases P4 through P5a]

1. **Clinical/Infection Control Team (C-ICT) (Clinical/Infection Control Annex contains full operational plan for C-ICT):** If a reported case of suspect novel influenza (C-ICT will update

and distribute clinical algorithm for identifying suspect cases as necessary) tests positive for H5N1 or other novel influenza virus (or the C-ICT determines that the case should be followed as a suspect case even though the PCR test is negative), the CMUL or a C-ITCM member will:

- a. Inform the physician and hospital infection control professional (if case is in a hospital) of test results and reiterate infection control information (including isolation and full barrier precautions).
- b. In consultation with physician, determine plan for antiviral treatment for case if appropriate, and if such medication is effective and available.
- c. Interview case or family to determine close contacts (interview forms will include demographic information including age, county, place of school or employment). If the case is not hospitalized, the C-ICT will inform the case and family of isolation and other infection control measures (if the C-ICT determines that the potential case is high-risk for a novel influenza virus, this step will occur while the MDH-PHL is testing the specimen).
- d. Notify the I/Q Team Leader of plan for isolation of case.
- e. Notify the I/Q Team Leader of antiviral treatment plan, if any, for case (e.g. including distribution mechanism for antivirals such as local pharmacy or local public health).
- f. If the case is hospitalized, the C-ICT will remain in contact with the physician or other hospital staff so that discharge planning includes isolation at home, if appropriate.
- g. Establish a daily check-in meeting(s) with the C-ICT and the I/Q Team to continue for the period that a case is in isolation.

2. Isolation and Quarantine Team (I/Q Team):

- a. If the person is to be isolated at home (not hospitalized), the I/Q Team Lead will communicate the isolation plan to the Monitoring Coordinator and the Essential Services Liaison.
- b. The Monitoring Coordinator or a Call Monitor (assigned by the Monitoring Coordinator) will contact the case and conduct the initial (Day 0) call in accordance with the Monitoring Protocol and the Day 0 script. This script includes information on infection control, the meaning of isolation status, the duration of isolation, care of a person at home, and 24/7 contact information for public health. The Monitoring Protocol and Day 0 script are in the **standard operating guideline (SOG) A-E (Attachment B-1)**. During the call, the caller will be asked if they have essential needs that cannot be fulfilled by a family member or other person in their support system (e.g. medication, groceries, thermometer, infection control supplies.). The Call Monitor will also talk with household members of the case and close contacts if they are to be monitored or in quarantine. Quarantine is addressed in Technical Annex 2: Quarantine of Close Contacts and Household Members in Homes with an Ill Person.
- c. The MDH Essential Services Liaison will contact the LPH Essential Services Contact for the jurisdiction in which the case is in isolation. The MDH Liaison will notify the LPH Contact of the essential needs of the case. The LPH Contact will ensure that these needs are met in accordance with their local essential services plan. The LPH Contact also will ensure that the plan (if there is one) for the case to obtain antiviral medications is implemented.
- d. MDH Monitoring Staff will make monitoring calls to the case twice daily to ascertain symptoms, additional essential service needs, compliance with isolation status, and health status of household members. Essential Service requests will be handled in accordance with 2.c above and the Monitoring Protocol.

- e. If a case reports new or worsening symptoms or that a household member has developed symptoms, the Monitoring Staff will immediately inform the C-ICT.
- f. If a case does not answer a monitoring call, additional attempts will be made and LPH will be asked to conduct a home check in accordance with the Monitoring Protocol. If these attempts at contact also fail, the MDH Monitoring Staff will immediately inform the MDH Monitoring Coordinator. The Monitoring Coordinator will facilitate a consultation with the I/Q Team Lead, the CMUL, and the Legal Coordinator to make a recommendation on whether any legal action is warranted. This recommendation will be communicated to the IDEPC Division Director who will communicate with the DOC IM and/or the MDH Commissioner for approval or disapproval of the recommendation. If it is determined that legal action will be taken, the Legal Coordinator will coordinate such action with the Office of the Attorney General and the County Attorney for the appropriate jurisdiction.
- g. When the duration of the case isolation period is due to end, the MDH Monitoring Coordinator will consult with the C-ICT to ascertain whether the period should be extended. If the period is not extended, the Monitoring Coordinator will inform the appropriate Monitoring Staff.
- h. In the final monitoring call, the Monitoring Staff will inform the case that they are no longer in isolation status.
- i. When the isolation period is complete, the Monitoring Coordinator will close the case and send a letter thanking the person isolated for their cooperation, and reiterating that they are no longer in a restricted status.

3. Isolation of Passengers Arriving at MSP or Rochester International Airport

- a. If the CDC officers at the MSP Quarantine Station determine that a passenger due to arrive or who has landed at MSP is suspect for a novel influenza virus, the CDC Officer will contact the CMUL and MDH will work with the CDC Quarantine Station, U.S. Customs and Border Patrol, and the Metropolitan Airports Commission (MAC) in accordance with the MSP Isolation and Quarantine Plan. (This plan is under development and in draft form.) The notification by CDC to the CMUL will trigger the MDH notification protocol in this Technical Annex.
- b. The CMUL or designee from the C-ICT will lead the MDH team that assists CDC in screening passengers at MSP and coordinating submission of specimens for laboratory testing to the MDH-PHL. Notification of laboratory results will occur in accordance with the notification protocol in this Technical Annex.
- c. The MDH I/Q Team Lead will staff the Metropolitan Airports Commission Emergency Operations Center if it is activated.
- d. If CDC, in consultation with the CMUL (or designee from the C-ICT), determines that monitoring or quarantine of other passengers on the plane may be warranted, the MDH I/Q Team Lead will notify the MDH Monitoring Coordinator. The Monitoring Coordinator will notify the I/Q Team and ensure that MDH is ready to activate its response. Quarantine is addressed in Technical Annex 2: Quarantine of Close Contacts and Household Members in Homes with an Ill Person.
- e. If the CDC Officers at the MSP Quarantine Station determine that a passenger due to arrive or who has landed at Rochester International Airport is suspect for a novel influenza virus, the CDC Officer will contact the CMUL, and Olmsted County Public Health. MDH will work in coordination with the CDC Quarantine Station and Olmsted County Public Health in accordance with the Rochester International Airport Isolation and Quarantine Plan. (This plan is under development and in draft form.)

B. Preparation for and Implementation of Isolation as a Community Mitigation Measure When There is Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Preparation for and Activation of Minnesota Response Phase P5b and P6]

MDH will escalate readiness for community transmission of a pandemic virus using the CDC PSI and the triggers of Alert, Standby, and Activate. The timing of these activation stages is reflected in the table that follows. Isolation is a measure that will occur both before and during community transmission of novel influenza virus in Minnesota. When there is evidence of community transmission, the strategy will become a statewide recommendation for those who are sick instead of an individualized measure that couples case ascertainment with public health monitoring.

Pandemic Severity Index	WHO Phase 6, U.S. Government Stage 3	WHO Phase 6, U.S. Government Stage 4 and First Human Case in U.S.	WHO Phase 6, U.S. Government Stage 5 and First Laboratory-Confirmed Cluster in Minnesota and Minnesota's Geospatial-Temporal Region – Cases Without an Epidemiologic Link to Each Other
1	Alert	Standby	Activate
2 and 3	Alert	Standby	Activate
4 and 5	Standby	Standby/Activate	Activate

1. Alert Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 3, and the CDC Director designates the PSI Category as 1-3, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that Alert actions should commence. If the PSI Category is 4 or 5, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed through Alert and Standby actions. In the latter situation, MDH will quickly move through to the Standby stage.
- b. The Operations Chief will request that the Clinical Management Unit take the Alert actions in this Technical Annex. Other MDH Command Staff will request that their units take the Alert actions in their annexes (e.g. communications will take the Alert actions in the Communications Annex including coordinating with the SEOC to announce this Alert stage to specific audiences and the general public).
- c. The CMUL will oversee the Alert actions of the Clinical Management Unit and will establish a daily check-in meeting(s) for the Unit concerning Alert actions. The primary roles of this Unit for the Alert stage for self-isolation at home are to:
 - Finalize recommendations for statewide self-isolation at home and submit them (as part of the overall Community Disease Mitigation Plan) to the MDH Planning and Intelligence Chief for SEOC approval in accordance with **Attachment F-1**;

- Finalize guidance for use of antiviral medications for treatment guided by efficacy, availability, Minnesota’s ethical framework for use of antiviral medications, and pre-identified channels of distribution, and submit them to the MDH Planning and Intelligence Chief for SEOC approval in accordance with **Attachment F-1**;
 - Consult with the OEP Medical Director and others as needed;
 - Ensure that isolation and home care messages/materials for various audiences are up-to-date and technically correct;
 - Provide technical expertise to other state agencies and local public health as they work with schools, businesses and other sectors to trigger the Alert actions in their plans; and
 - Communicate with health care providers on clinical issues, antiviral medications, infection control, and non-pharmaceutical intervention recommendations.
- d. The CMUL will coordinate finalization of guidance for the use of antiviral medications for treatment. The CMUL also will coordinate with MDH SNS and Mass Dispensing staff to resolve any remaining issues of medical orders for antiviral medications and distribution mechanisms for patients who are not hospitalized (SNS and Mass Dispensing are addressed in separate Annexes). The CMUL will finalize any necessary and appropriate medical orders.
- e. The Infection Control Coordinator will update pre-developed materials on self-isolation at home during a pandemic; care of sick family members; infection control measures at home including hand hygiene and respiratory etiquette; and where/when to seek medical care during a pandemic.
- f. The Infection Control Coordinator will update pre-developed materials on exclusion of people who are sick from work and other settings.
- g. The Community Isolation and Quarantine Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions from local public health and others concerning self-isolation at home.

2. Standby Actions

- a. When WHO declares Phase 6, and the U.S. declares U.S. Government Stage 4, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that Standby actions should commence. If the PSI Category is 4 or 5, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed to activation. In the latter situation, MDH will quickly move to the Activate stage.
- b. The Operations Chief will request that the Clinical Management Unit take the Standby actions in this Technical Annex. Other MDH Command Staff will request that their units take the Standby actions in their annexes (e.g. communications will take the Standby actions in the Communications Annex including coordinating with the SEOC to announce the Standby stage to specific audiences and the general public).
- c. The CMUL will oversee the Standby actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning Standby actions. The primary roles of this Unit for the Standby stage for self-isolation at home are to:
- Work with MDH SNS Staff and MDH Mass Dispensing Staff (if antivirals are effective and in sufficient quantity) as requested by them to ensure that antivirals are appropriately pre-positioned;
 - Establish a hotline for use by clinicians;
 - Provide technical expertise to update isolation and home care messages/materials for various audiences as necessary;

- Work with MDH Communications Command Staff to disseminate isolation messages/materials through mass media, the MDH website, and other distribution mechanisms;
- Use the Health Alert Network, and listserv for infection control professionals and infectious disease physicians, to communicate key messages including that non-acute patients with influenza-like illness should self-isolate at home;
 - Provide technical expertise to other state agencies and local public health as they work with schools, businesses, and other sectors to trigger the Standby actions in their plans; and
 - Communicate with health care providers.

3. Activate Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 5, and Minnesota has its first laboratory-confirmed cluster in the state or epidemiologic region without epidemiologic links to each other, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that activation for community-wide isolation of people ill with potential pandemic influenza should commence.
- b. The Operations Chief will request that the Clinical Management Unit take the activation actions in this Technical Annex. Other MDH Command Staff will request that their units take the activation actions in their annexes (e.g. communications will take the activation actions in the Communications Annex including coordinating with the SEOC to announce the activation stage [request that people who are sick isolate themselves at home] to specific audiences and the general public).
- c. The CMUL will oversee the activation actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning activation actions. The primary roles of this Unit for the activation stage for self-isolation at home are to:
 - Revise guidelines for use of antiviral medications as necessary and coordinate with MDH SNS Staff and MDH Mass Dispensing Staff to monitor use and availability of these medications in the state;
 - Implement hotline for use by clinicians;
 - Provide technical expertise to update isolation and home care messages/materials for various audiences as necessary;
 - Provide technical expertise to other state agencies and local public health as they work with schools, businesses, and other sectors to trigger the activation actions in their plans; and
 - Communicate with health care providers.
- d. The Surveillance Unit will monitor pandemic virus and influenza-like illness in the state (through sentinel sites and other mechanisms) and will assess the effectiveness of community mitigation measures. Surveillance is addressed in the Surveillance Annex.

4. Actions to Deactivate Community Mitigation Measures

- a. The Surveillance Unit will monitor pandemic virus in Minnesota through various surveillance systems in accordance with the Surveillance Annex. The CMUL, the MDH Surveillance Unit Leader, and the MDH Planning and Intelligence Chief will consult on when deactivation is advisable. The Planning and Intelligence Chief will make a recommendation to the MDH DOC Incident Manager on the timing for deactivation of community mitigation measures. This recommendation will be communicated through the Incident Command Structure in the SEOC. In making the recommendation, the Planning and Intelligence Chief will separately consider each category of community mitigation measure since isolation of people who are ill will likely be recommended even if a pandemic wave has subsided.
- b. The Operations Chief will request that the Clinical Management Unit take actions to deactivate community mitigation measures in accordance with the decisions of the SEOC. Other MDH Command Staff also will request that their units take actions to deactivate these measures (e.g. communications will take the deactivation actions in the Communications Annex including coordinating with the SEOC to announce the deactivation stage to specific audiences and the general public).

Technical Annex 2: Quarantine of Close Contacts and Household Members in Homes with an Ill Person

I. Introduction

Purpose

The purpose of this Technical Annex is to address how MDH will implement quarantine in the state in an effort to contain a novel influenza virus or mitigate the impact of a pandemic in Minnesota.

Scope

This Technical Annex addresses the operational plan for MDH to implement quarantine in the state for a novel influenza virus and a actual pandemic. It also addresses how MDH will work with CDC Quarantine Station officials at the MSP Airport and with CDC officials and Olmsted County officials at the Rochester International Airport in the event an arriving passenger meets the case criteria for a novel influenza virus. Additional MDH Annexes address topics that also will be critical to successful implementation of quarantine (e.g. Surveillance Annex, Communications Annex).

Quarantine of exposed close contacts and household members of a person infected with a novel influenza virus may occur prior to the time that the MDH Department Operations Center (DOC) and the State Emergency Operations Center (SEOC) are activated. This would most likely occur prior to WHO Phase 6 if there are individual, sporadic cases with no epidemiologic link.

A. Lead Division, Section, Unit or Office

Division of Infectious Disease Epidemiology, Prevention, and Control

B. Internal Support Division(s), Section(s), Unit(s) or Office(s)

Office of Emergency Preparedness (OEP)

MDH Legal Unit

C. External Support

Local Public Health

Local Emergency Managers

CDC Quarantine Officials at MSP

Minnesota Homeland Security and Emergency Management

Minnesota Department of Human Services

American Red Cross

Office of the Minnesota Attorney General

Office of the United States Attorney for the District of Minnesota

D. MDH All-Hazards Annex Interfaces

- | | |
|--|---|
| <input type="checkbox"/> Behavioral Health for Response Staff Annex | <input checked="" type="checkbox"/> Mass Dispensing Annex |
| <input type="checkbox"/> Care of the Dead Annex | <input type="checkbox"/> MDH Workspace Annex |
| <input checked="" type="checkbox"/> Clinical Care Annex | <input checked="" type="checkbox"/> Medical Care Annex |
| <input checked="" type="checkbox"/> Communications Management Annex | <input type="checkbox"/> MN Responds Medical Reserve Corps Annex |
| <input type="checkbox"/> Community Disease Containment Annex | <input type="checkbox"/> Needs Assessment Annex |
| <input type="checkbox"/> Compensation/Claims Unit Annex | <input checked="" type="checkbox"/> Partner/ MDH Communications Annex |
| <input type="checkbox"/> Cost Unit Annex | <input checked="" type="checkbox"/> Patient Care Coordination |
| <input type="checkbox"/> Demobilization Unit Annex | <input type="checkbox"/> Personnel Training Annex |
| <input type="checkbox"/> Disease, Injury, Exposure & Follow-Up Annex | <input type="checkbox"/> Personnel Transportation Annex |
| <input type="checkbox"/> DOC Communications Annex | <input type="checkbox"/> Pre-Hospital Care Annex |
| <input type="checkbox"/> Documentation Unit Annex | <input type="checkbox"/> Procurement Unit Annex |

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|--|---|
| <input type="checkbox"/> Drinking Water Protection | <input checked="" type="checkbox"/> Public Education & Outreach Annex |
| <input type="checkbox"/> Environmental Hazards Remediation | <input type="checkbox"/> Regulatory Compliance Unit Annex |
| <input type="checkbox"/> Facilities Annex | <input type="checkbox"/> Resources Unit Annex |
| <input type="checkbox"/> Food Safety | <input type="checkbox"/> Sanitation Annex |
| <input type="checkbox"/> Food Unit Annex | <input type="checkbox"/> Security Annex |
| <input type="checkbox"/> Hardware & Systems Support Annex | <input checked="" type="checkbox"/> SNS Coordination |
| <input type="checkbox"/> Health & Safety Annex | <input type="checkbox"/> Staffing/Human Resources Annex |
| <input type="checkbox"/> Health Alert Network Annex | <input type="checkbox"/> Supplies & Equipment Transportation Annex |
| <input type="checkbox"/> Hotline Annex | <input type="checkbox"/> Supplies/Equipment Annex |
| <input checked="" type="checkbox"/> Incident Profiling & Forecasting Annex | <input type="checkbox"/> Tactical Communications Annex |
| <input checked="" type="checkbox"/> Infection Control Annex | <input type="checkbox"/> Time Unit Annex |
| <input type="checkbox"/> Isolation & Quarantine Annex | <input type="checkbox"/> Vector Control |
| <input type="checkbox"/> Just-In-Time Training Annex | <input type="checkbox"/> Victims'/Population Behavioral Health Annex |
| <input checked="" type="checkbox"/> Laboratory | <input type="checkbox"/> Videoconferencing Annex |
| <input type="checkbox"/> Long-Term Follow-Up Protocol Development Annex | |

II. Organizational Structure

A. Command Structure

If the MDH All-Hazards Plan is activated, there is a Clinical Management Unit under Operations in the MDH Incident Command Structure. The Clinical Management Unit has two teams: the Disease Containment Team and the Clinical Infection Control Team (C-ICT). Both teams report to the Clinical Management Unit Leader (CMUL). The CMUL reports to the Operations Chief in the MDH DOC. A diagram of the structure is in **Attachment E-1 and Attachment E-3**.

If the MDH All-Hazards Plan is not activated, the Disease Containment Team (I/Q Team) and the C-ICT operate in the MDH Division of Infectious Disease Epidemiology, Prevention, and Control (IDEPC). The teams report to the IDEPC Medical Director.

B. Staff Requirements

Staff roles to fulfill this function are:

Clinical Management Unit

Clinical Management Unit Leader (CMUL)

C-ICT:

Clinical Coordinator

Infection Control Coordinator

C-ICT Members

Disease Containment Team (or Isolation and Quarantine [I/Q] Team):

Disease Containment Team Lead (or Isolation and Quarantine [I/Q] Team Lead)

Monitoring Coordinator*

Monitoring Staff*

Monitoring Database Coordinator*

Data Entry Staff*
Essential Services Liaison*
MDH Legal Coordinator
Community Isolation and Quarantine Liaison**

*Denotes functions for isolation and quarantine prior to the time that there is evidence of community transmission of a pandemic influenza virus in Minnesota.

**Denotes function for isolation and quarantine once there is evidence of community transmission of a pandemic influenza virus in Minnesota.

C. Notification Structure

1. Pre-Evidence of Community Disease Transmission in Minnesota (or its Geospatial-Temporal Region) [Minnesota Response Phases P4 through P5a]

- a. If a reported case is suspicious for a novel influenza virus and warrants laboratory testing by the MDH Public Health Laboratory (MDH-PHL), the CMUL or C-ICT member notifies pre-identified Operational and Management Groups. The Operations Group includes staff who have responsibilities for managing the suspect case and includes the Clinical Coordinator, the Infection Control Coordinator, the Virology/Immunology Laboratory Supervisor, the Disease Containment Team Lead, and the Monitoring Coordinator. The Management Group includes the Division Director for IDEPC, and the Assistant Commissioner for the Health Protection Bureau. A diagram of this notification structure is in **Attachment E-2**.
- b. The IDEPC Division Director notifies the MDH Commissioner as specified in the MDH All-Hazards Plan.
- c. If the laboratory test is positive for H5N1 or another novel influenza strain by PCR or another laboratory test (or the C-ICT determines that the case should be followed as a suspect case even though the PCR or other test is negative), the CMUL or C-ICT:
 - Notifies the Operational and Management Groups
 - Activates the MDH Isolation and Quarantine Team (I/Q Team). The I/Q Team Leader notifies the Monitoring Coordinator, Monitoring Staff, the Monitoring Database Coordinator, the Essential Services Liaison, the MDH Legal Coordinator, and appropriate LPH Monitoring and/or Essential Services Contacts. The I/Q Team Lead will determine the number of staff necessary for monitoring and whether data entry staff will be notified.
 - Notifies the Centers for Disease Control and Prevention
- d. If the laboratory test is positive for H5N1 or another novel influenza strain by PCR or another laboratory test (or the C-ICT determines that the case should be followed as a suspect case even though the PCR test is negative), the IDEPC Division Director notifies the MDH Commissioner as specified in the MDH All-Hazards Plan.
- e. If the laboratory test is negative (and the C-ICT determines that the case should not be followed as a suspect case), the C-ICT will notify all staff who were initially notified that testing would occur.

2. Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Minnesota Response Phase P5B and Minnesota Response Phase P6]

- a. When the CMUL, the Surveillance Unit Leader, and the DOC Planning and Intelligence Chief determine that cluster(s) of cases are not epidemiologically linked and that Minnesota is in Response Phase 5B, the DOC Incident Manager notifies the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative.
- b. The CMUL notifies the Clinical Coordinator, the Infection Control Coordinator, and the Disease Containment Team Lead.
- c. The Disease Containment Lead notifies the Community Isolation and Quarantine Liaison.

III. Use of Quarantine by Pandemic Phases

The tables that follow depict MDH implementation of quarantine in the WHO, U.S., and Minnesota pandemic phases. This table may change as CDC guidance changes, and as more is known about the effectiveness of non-pharmaceutical interventions and the epidemiology of a novel or pandemic influenza virus.

Pre-Pandemic Novel Influenza Virus

WHO Phase	Minnesota	Quarantine
WHO Phase 3 No or Very Limited Human-to-Human Transmission	Suspected/Confirmed Human Case in Minnesota	Quarantine of close contacts with MDH/LPH Monitoring
WHO Phase 4 Evidence of Increased Human-to-Human Transmission	Suspected/Confirmed Human Case in Minnesota	Quarantine of close contacts with MDH/LPH Monitoring
WHO Phase 5 Evidence of Significant Human-to-Human Transmission	Suspected/Confirmed Human Case in Minnesota	Quarantine of close contacts with MDH/LPH Monitoring

Pandemic Virus

WHO Phase	U.S. Stage	MN Response Phase*	Quarantine Pandemic Severity 1***	Quarantine Pandemic Severity 2/3***	Quarantine Pandemic Severity 4/5
WHO Phase 6 Efficient and Sustained Human-to-Human Transmission	U.S. Stage 3 Widespread Human Outbreaks in Multiple Locations Overseas	MN Response Phase P1 Sustained Human-to-Human Transmission Overseas			
	U.S. Stage 4 First Human Case in North America	MN Response Phase P2** Suspected/Confirmed Case in North America			
	U.S. Stage 5 Spread Throughout U.S.	MN Response Phase P3 Widespread Outbreak in U.S.			
		MN Response Phase P4 Suspected/Confirmed Human Case in Minnesota	MDH will implement quarantine with MDH/LPH monitoring.	MDH will implement quarantine with MDH/LPH monitoring.	MDH will implement quarantine with MDH/LPH monitoring.

Pandemic Virus - Continued

WHO Phase	U.S. Stage	MN Response Phase*	Quarantine Pandemic Severity 1***	Quarantine Pandemic Severity 2/3***	Quarantine Pandemic Severity 4/5
		<p>MN Response Phase P5a</p> <p>First Laboratory-confirmed Cluster in Minnesota or Minnesota’s Geospatial/Temporal Region - cases have epidemiological links to each other</p>	Generally not recommended by CDC. MDH will consider continued implementation of quarantine with MDH/LPH monitoring.	CDC recommends consideration of self-quarantine. MDH will consider continued implementation of quarantine with MDH/LPH monitoring.	CDC recommends self-quarantine. MDH will implement quarantine with MDH/LPH monitoring.
		<p>MN Response Phase P5b</p> <p>First Laboratory-confirmed Cluster in Minnesota or Minnesota’s Geospatial/Temporal Region-cases have NO epidemiological links to each other</p>	Generally not recommended by CDC. MDH will consider self-quarantine with no MDH/LPH monitoring.	CDC recommends consideration of self-quarantine. MDH will consider self-quarantine with no MDH/LPH monitoring.	CDC recommends self-quarantine. MDH will recommend self-quarantine with no MDH/LPH monitoring.
		<p>MN Response Phase P6</p> <p>Widespread Throughout Minnesota</p>	Generally not recommended by CDC. MDH will consider self-quarantine with no MDH/LPH monitoring.	CDC recommends consideration of self-quarantine. MDH will consider self-quarantine with no MDH/LPH monitoring.	CDC recommends self-quarantine. MDH will recommend self-quarantine with no MDH/LPH monitoring.

* Minnesota SEOC and MDH DOC are partially activated in Minnesota Response Phases 2 and 3 and fully activated in Minnesota Response Phases 4, 5, and 6.

** If the first human case in North America during WHO Phase 6 is in Minnesota, then Minnesota Response Phase 4 would occur at this point. Minnesota may institute quarantine with MDH/LPH monitoring under this circumstance.

*** When this table reflects that MDH will consider a measure, the CMUL will make a recommendation to the Planning and Intelligence Chief who will communicate it to the DOC. The DOC Incident Manager will communicate it to the Command Structure at the SEOC in accordance with Attachment F-1.

IV. Key Activities for Quarantine

A. Use of Quarantine (case-based) Prior to Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Minnesota Response Phases P4 through P5a]

1. **Clinical/Infection Control Team (C-ICT) (Clinical/Infection Control Annex to MDH Pandemic Influenza Plan contains full operational plan for C-ICT):** If a reported case of suspect novel influenza tests positive for H5N1 or another novel influenza virus (or the C-ICT determines that the case should be followed as a suspect case even though the laboratory tests are negative), the CMUL or a C-ITCM member will:
 - a. Interview case or family to determine close contacts (interview form includes demographic information). If the case is not hospitalized, the C-ICT will inform the case and family of isolation/quarantine and infection control measures (if the C-ICT determines that the potential case is high-risk for a novel influenza virus, these steps will occur while the MDH-PHL is testing the specimen).
 - b. Determine the plan for monitoring of health status for household members and other close contacts (e.g. quarantine with monitoring or monitoring alone). The plan will address the use of antiviral medications for close contacts if appropriate, and if such medication is effective, available in sufficient quantity, and in accordance with Minnesota's ethical framework for allocation of antiviral medications.
 - c. Notify the I/Q Team Leader of plan for monitoring of health status of close contacts. (e.g., quarantine with monitoring or monitoring alone). Provide the I/Q Team Leader with a list of close contacts.
 - d. Notify the I/Q Team Leader of antiviral plan for close contacts (e.g. including distribution mechanism for antivirals such as local pharmacy or local public health).
 - e. Establish a daily check-in meeting(s) with the C-ICT and the I/Q Team to continue for the period that close contacts are in quarantine.
2. **Isolation and Quarantine Team (I/Q Team):**
 - a. The I/Q Team Lead is responsible for overall implementation of the plan for close contacts. The I/Q Team Lead will communicate the plan to the Monitoring Coordinator and the MDH Essential Services Liaison.
 - b. The Monitoring Coordinator will assign each close contact to an MDH Call Monitor or to an LPH Monitoring Contact in accordance with the MDH Monitoring Protocol (This protocol is a set of Standard Operating Procedures [SOPs] to monitor the health status and essential service needs of people in isolation or quarantine- **Attachment B-1**).
 - c. The Call Monitor(s) will call their assigned close contacts and conduct the initial (Day 0) call in accordance with the MDH Monitoring Protocol and the Day 0 Script. This script includes information on infection control, the meaning of quarantine status, the duration of quarantine, what to do if symptoms develop, and 24/7 contact information for public health. The Monitoring Protocol and Day 0 Script are in **Attachment B-1**. During the call, the contact will be asked if they have essential needs that cannot be fulfilled by a family member or other person in their support system (e.g. medication, groceries, thermometer, infection control supplies).
 - d. If MDH is conducting monitoring, the MDH Essential Services Liaison will contact the LPH Essential Services Contact for the jurisdiction in which the close contact is in quarantine. The MDH Liaison will notify the LPH Contact of the essential needs of the person in quarantine. The LPH contact will ensure that these needs are met in accordance with their local essential

- services plan. The LPH contact also will ensure that the plan (if there is one) for the person in quarantine to obtain antiviral medications is implemented. If LPH is conducting the monitoring calls, they will refer within their agency to fulfill essential service requests.
- e. MDH Monitoring Staff will make twice daily monitoring calls (unless otherwise directed by the C-ICT) to the close contacts to ascertain symptoms, additional essential service needs, and compliance with quarantine status. Essential Service requests will be handled in accordance with 2.d above and the Monitoring Protocol.
 - f. If a contact reports symptoms, the MDH Monitoring Staff will immediately inform the C-ICT. (If LPH is conducting the monitoring, the LPH Monitoring Coordinator will immediately inform the MDH Monitoring Coordinator.)
 - g. If a person in quarantine does not answer a monitoring call, additional attempts will be made and LPH will be asked to conduct a home check in accordance with the Monitoring Protocol. If these attempts at contact also fail, the Monitoring Staff will immediately inform the Monitoring Coordinator. The Monitoring Coordinator will facilitate a consultation with the I/Q Team Lead, the CMUL, and the Legal Coordinator to make a recommendation on whether legal action is warranted. This recommendation will be communicated to the IDEPC Division Director who will communicate with DOC IM and/or the MDH Commissioner for approval or disapproval of the recommendation. If it is determined that legal action will be taken, the Legal Coordinator will coordinate such action with the Office of the Attorney General and the County Attorney for the appropriate jurisdiction.
 - h. When the duration of the quarantine period is due to end, the Monitoring Coordinator will consult with the C-ICT to ascertain whether the period should be extended. If the period is not extended, the Monitoring Coordinator will inform the appropriate Monitoring Staff.
 - i. In the final monitoring call, the Monitoring Staff will inform the person in quarantine that they are no longer in quarantine status.
 - j. When the quarantine period is complete, the Monitoring Coordinator will close the case and send a letter thanking the person quarantined for their cooperation, and reiterating that they are no longer in a restricted status.
3. **Quarantine of Passengers Arriving at MSP or Rochester International Airport**
- a. If the CDC Officers at the MSP Quarantine Station determine that a passenger due to arrive or who has landed at MSP is suspected to be infected with a novel pandemic influenza virus, the CDC Officer will contact the CMUL and MDH will work with the CDC Quarantine Station, U.S. Customs and Border Patrol, and the Metropolitan Airports Commission in accordance with the MSP Isolation and Quarantine Plan (This plan is under development and in draft form). The notification by CDC to the CMUL will trigger the MDH notification protocol in this Technical Annex.
 - b. The CMUL or designee from the C-ICT will lead the team that assists CDC in screening passengers and coordinating submission of specimens for laboratory testing to the MDH-PHL. Notification of laboratory results will occur in accordance with the notification protocol in this Technical Annex.
 - c. The MDH I/Q Team Lead will staff the MSP Airport Emergency Operations Center if it is activated.
 - d. If CDC, in consultation with the CMUL (or designee from the C-ICT), determine that monitoring or quarantine of other passengers on the plane may be warranted, the MDH I/Q Team Lead will notify the MDH Monitoring Coordinator. The Monitoring Coordinator will activate preparation for possible quarantine of passengers.

- e. MDH, with the C-ICT and I/Q Teams as leads, will coordinate quarantine of passengers if the case tests positive for a novel pandemic influenza virus and it is determined that quarantine is warranted. A plan for quarantine of travelers arriving at MSP will be developed.
- f. If the CDC Officers at the MSP Quarantine Station determine that a passenger due to arrive or who has landed at Rochester International Airport is suspect for a novel influenza virus, the CDC Officer will contact the CMUL, and Olmsted County Public Health. MDH will work in coordination with the CDC Quarantine Station and Olmsted County Public Health in accordance with the Rochester International Airport Isolation and Quarantine Plan. (This plan is under development and in draft form.)

B. Preparation for and Implementation of Quarantine as a Community Mitigation Measure When there is Evidence of Community Transmission in Minnesota (or its Geospatial-Temporal Region) [Preparation For and Activation of Minnesota Response Phase P5b and P6]

MDH will escalate readiness for community transmission of a pandemic virus using the CDC PSI and the triggers of Alert, Standby, and Activate. The timing of these activation stages is reflected in the table that follows. Unlike isolation, implementation of quarantine may be dependent on the severity of a pandemic. Prior to WHO Phase 6, quarantine will involve MDH/LPH monitoring. Once WHO declares Phase 6, MDH will determine an appropriate quarantine intervention based on available resources and the epidemiology of the virus. MDH will consider quarantine with MDH/LPH monitoring up through Minnesota Response P5a regardless of the pandemic severity.

Once Minnesota Phase P5b occurs, MDH will consider recommendation of statewide self-quarantine with no monitoring for household members of a case for PSI Categories 1-3. MDH will make a statewide recommendation for self-quarantine for PSI Categories 4/5 for household members in homes with a person who is ill. The MDH-DOC will communicate statewide recommendations for self-quarantine at home for household members of a person who is ill to the SEOC for approval.

Pandemic Severity Index	WHO Phase 6, U.S. Government Stage 3	WHO Phase 6, U.S. Government Stage 4 and First Human Case in U.S.	WHO Phase 6, U.S. Government Stage 5 and First Laboratory-Confirmed Cluster in Minnesota or Minnesota's Geospatial-Temporal Region – cases without an epidemiologic link to each other
	1	Alert	Standby
2 and 3	Alert	Standby	Activate
4 and 5	Standby	Standby/Activate	Activate

1. Alert Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 3, and the CDC Director designates the PSI index Category as 1-3, the DOC Command Staff and the MDH SEOC Representative will confer and make a recommendation to the MDH Commissioner and the SEOC as to whether to make a statewide recommendation for self-quarantine during

the pandemic. (CDC does not generally recommend self-quarantine for a Category 1 pandemic and recommends that self-quarantine should be *considered* for a Category 2/3 Pandemic). The key factor these staff will assess in making this recommendation is the epidemiology of the virus in outbreaks that have occurred in the world to date. This recommendation may change as the U.S. Government declares U.S. Stages 4 and 5.

If the recommendation is for statewide self-quarantine to occur, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that Alert actions commence.

- b. If the Pandemic Severity is 4 or 5, (CDC *recommends* statewide self-quarantine) the DOC Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed through Alert and Standby actions. In the latter situation, MDH will quickly move through to the Standby stage.
- c. The Operations Chief will request that the Clinical Management Unit take the Alert actions in this Technical Annex. Other MDH Command Staff will request that their units take the Alert actions in their annexes (e.g. communications will take the Alert actions in the Communications Annex including coordinating with the SEOC to announce this Alert stage to specific audiences and the general public).
- d. The CMUL will oversee the Alert actions of the Clinical Management Unit and will establish a daily check-in meeting(s) for the Unit concerning Alert actions. The primary roles of this Unit for the Alert stage for self-quarantine at home is to:
 - Finalize recommendations for statewide self-quarantine at home for household members of people who are sick and submit them (as part of the overall Community Disease Mitigation Plan) to the MDH Planning and Intelligence Chief for SEOC approval in accordance with **Attachment F-1**;
 - Finalize guidance for use of antiviral medications for household members of a person who is ill guided by efficacy, availability, Minnesota's ethical framework for use of antiviral medications, and pre-identified channels of distribution, and submit them to the MDH Planning and Intelligence Chief for SEOC approval in accordance with **Attachment F-1**;
 - Consult with the OEP Medical Director and others as needed;
 - Ensure that quarantine messages/materials for various audiences are up-to-date and technically correct;
 - Provide technical expertise to other state agencies and local public health as they work with schools, businesses and other sectors to trigger the Alert actions in their plans; and
 - Communicate with health care providers.
- e. The CMUL will coordinate finalization of guidance for the use of antiviral medications for prophylaxis. The CMUL also will coordinate with MDH SNS and Mass Dispensing Staff to resolve any remaining issues of medical orders for antiviral medications and distribution mechanisms. (SNS and Mass Dispensing are addressed in separate Annexes.) The CMUL will finalize any necessary and appropriate medical orders.
- f. The Infection Control Coordinator will update pre-developed materials on self-quarantine at home during a pandemic; care of sick family members; infection control measures at home including hand hygiene and respiratory etiquette; and what to do if symptoms develop in family members.

- g. The Community Isolation and Quarantine Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions from local public health and others concerning self-quarantine at home.

2. Standby Actions

- a. When WHO declares Phase 6, and the U.S. declares U.S. Government Stage 4, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that Standby actions should commence. If the Pandemic Severity Index Category is 4 or 5, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed to activation. In the latter situation, MDH will quickly move to the Activate stage.
- b. The Operations Chief will request that the Clinical Management Unit take the Standby actions in this Technical Annex. Other MDH Command Staff will request that their units take the Standby actions in their annexes (e.g. communications will take the Standby actions in the Communications Annex including coordinating with the SEOC to announce the Standby stage to specific audiences and the general public).
- c. The CMUL will oversee the Standby actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning Standby actions. The primary roles of this Unit for the Standby stage for self-quarantine at home are to:
 - Work with MDH SNS Staff and MDH Mass Dispensing Staff as requested by them to ensure that antivirals are appropriately pre-positioned (if antivirals are effective and in sufficient quantity);
 - Establish a hotline for use by clinicians;
 - Provide technical expertise to update home quarantine and infection control messages/materials for various audiences as necessary;
 - Work with MDH Communications Command Staff to disseminate quarantine messages/materials through media and other distribution channels;
 - Provide technical expertise to other state agencies and local public health as they work with schools, businesses, and other sectors to trigger the Standby actions in their plans; and
 - Communicate with health care providers.

3. Activate Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 5, and Minnesota has its first laboratory-confirmed cluster in the state or geospatial-temporal region, with no epidemiologic links to each other, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that activation should commence for statewide self-quarantine of people who have a household member with potential pandemic influenza.
- b. The Operations Chief will request that the Clinical Management Unit take the activation actions in this Technical Annex. Other MDH Command Staff will request that their units take the activation actions in their annexes (e.g. communications will take the activation actions in the Communications Annex including coordinating with the SEOC to announce the activation stage [request that people with a household member who is ill quarantine themselves at home] to specific audiences and the general public).
- c. The CMUL will oversee the activation actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning activation actions. The primary roles of this Unit for the activation stage for self-quarantine at home is to:

- Revise guidelines for use of antiviral medications as necessary and coordinate with MDH SNS Staff and MDH Mass Dispensing Staff to monitor use and availability of these medications in the state;
 - Implement hotline for use by clinicians;
 - Provide technical expertise to update home quarantine and infection control messages/materials for various audiences as necessary;
 - Provide technical expertise to other state agencies and local public health as they work with schools, businesses, and other sectors to trigger the activation actions in their plans; and
 - Communicate with health care providers.
- d. The Surveillance Unit will monitor pandemic virus and influenza-like illness in the state through sentinel sites and other mechanisms, and assess the effectiveness of community mitigation strategies. Surveillance is addressed in the Surveillance Annex.

4. Actions to Deactivate Community Mitigation Measures

- a. The Surveillance Unit will monitor pandemic virus in Minnesota through various surveillance systems in accordance with the Surveillance Annex. The CMUL, the Surveillance Unit Leader, and the MDH Planning and Intelligence Chief will consult on when deactivation is advisable. The Planning and Intelligence Chief will make a recommendation to the MDH DOC Incident Manager on the timing for deactivation of community mitigation measures. This recommendation will be communicated through the Incident Command Structure in the SEOC. In making the recommendation, the Planning and Intelligence Chief will separately consider each category of community mitigation measure since self-quarantine for people with a sick household member may be recommended (guided by pandemic severity and other epidemiologic factors) even if a pandemic wave has subsided.
- b. The Operations Chief will request that the Clinical Management Unit take actions to deactivate community mitigation measures in accordance with decisions of the SEOC. Other MDH Command Staff also will request that their units take action to deactivate these measures (e.g. communications will take the deactivation actions in the Communications Annex including coordinating with the SEOC to announce the deactivation stage to specific audiences and the general public).

**Technical Annex 3: Social Distancing of Adults in Workplaces and
Community Settings**

I. Introduction

Purpose

The purpose of this Technical Annex is to address how MDH will operate in relation to adult social distancing measures to mitigate the impact of a pandemic in Minnesota.

Scope

This Technical Annex addresses the operational plan for MDH in relation to recommendations for adult social distancing measures. The current, specific recommendations for adult social distancing are not included in this Technical Annex because this is an operational annex. Recommendations for workplace social distancing are in the HSEM Service Continuation Planning Guides (**Attachment D**) and also will be developed for distribution to a wider audience. Additional MDH Annexes address topics that will be critical to successful implementation of social distancing to protect adults (e.g. Surveillance Annex, Communications Annex).

A. Lead Division, Section, Unit or Office

Division of Infectious Disease Epidemiology, Prevention, and Control

B. Internal Support Division(s), Section(s), Unit(s) or Office(s)

Office of Emergency Preparedness (OEP)

MDH Legal Unit

C. External Support

Local Public Health

Local Emergency Managers

Department of Public Safety, Division of Homeland Security and Emergency Management

Minnesota Department of Human Services

American Red Cross

D. MDH All-Hazards Annex Interfaces

- | | |
|--|---|
| <input type="checkbox"/> Behavioral Health for Response Staff Annex | <input checked="" type="checkbox"/> Mass Dispensing Annex |
| <input type="checkbox"/> Care of the Dead Annex | <input type="checkbox"/> MDH Workspace Annex |
| <input checked="" type="checkbox"/> Clinical Care Annex | <input checked="" type="checkbox"/> Medical Care Annex |
| <input type="checkbox"/> Communications Management Annex | <input type="checkbox"/> MN Responds Medical Reserve Corps Annex |
| <input type="checkbox"/> Community Disease Containment Annex | <input type="checkbox"/> Needs Assessment Annex |
| <input type="checkbox"/> Compensation/Claims Unit Annex | <input checked="" type="checkbox"/> Partner/ MDH Communications Annex |
| <input type="checkbox"/> Cost Unit Annex | <input checked="" type="checkbox"/> Patient Care Coordination |
| <input type="checkbox"/> Demobilization Unit Annex | <input type="checkbox"/> Personnel Training Annex |
| <input type="checkbox"/> Disease, Injury, Exposure & Follow-Up Annex | <input type="checkbox"/> Personnel Transportation Annex |
| <input type="checkbox"/> DOC Communications Annex | <input checked="" type="checkbox"/> Pre-Hospital Care Annex |
| <input type="checkbox"/> Documentation Unit Annex | <input type="checkbox"/> Procurement Unit Annex |
| <input type="checkbox"/> Drinking Water Protection | <input checked="" type="checkbox"/> Public Education & Outreach Annex |
| <input type="checkbox"/> Environmental Hazards Remediation | <input type="checkbox"/> Regulatory Compliance Unit Annex |
| <input type="checkbox"/> Facilities Annex | <input type="checkbox"/> Resources Unit Annex |
| <input type="checkbox"/> Food Safety | <input type="checkbox"/> Sanitation Annex |

- | | |
|--|--|
| <input type="checkbox"/> Food Unit Annex | <input type="checkbox"/> Security Annex |
| <input type="checkbox"/> Hardware & Systems Support Annex | <input checked="" type="checkbox"/> SNS Coordination |
| <input type="checkbox"/> Health & Safety Annex | <input type="checkbox"/> Staffing/Human Resources Annex |
| <input type="checkbox"/> Health Alert Network Annex | <input type="checkbox"/> Supplies & Equipment Transportation Annex |
| <input type="checkbox"/> Hotline Annex | <input type="checkbox"/> Supplies/Equipment Annex |
| <input checked="" type="checkbox"/> Incident Profiling & Forecasting Annex | <input type="checkbox"/> Tactical Communications Annex |
| <input checked="" type="checkbox"/> Infection Control Annex | <input type="checkbox"/> Time Unit Annex |
| <input checked="" type="checkbox"/> Isolation & Quarantine Annex | <input type="checkbox"/> Vector Control |
| <input type="checkbox"/> Just-In-Time Training Annex | <input type="checkbox"/> Victims'/Population Behavioral Health Annex |
| <input checked="" type="checkbox"/> Laboratory | <input type="checkbox"/> Videoconferencing Annex |
| <input type="checkbox"/> Long-Term Follow-Up Protocol Development Annex | |

II. Organizational Structure

A. Command Structure

If the MDH All-Hazards Plan is activated, there is a Clinical Management Unit under Operations in the MDH Incident Command Structure. The Clinical Management Unit has two teams: the Disease Containment Team and the Clinical Infection Control Team (C-ICT). Both teams report to the Clinical Management Unit Leader (CMUL). The CMUL reports to the Operations Chief in the MDH DOC. A diagram of the structure is in **Attachment E-3**.

B. Staff Requirements

Staff roles to fulfill this function are:

Clinical Management Unit

Clinical Management Unit Leader (CMUL)

C-ICT:

Clinical Coordinator
Infection Control Coordinator
C-ICT Members

Disease Containment Team (or I/Q Team):

Disease Containment Team Lead (or Isolation and Quarantine Team Lead)
Community Isolation and Quarantine Liaison
School Closure/Child Social Distancing Liaison
Workplace/Adult Social Distancing Liaison
MDH Legal Coordinator

C. Notification Structure

1. When the WHO declares Pandemic Phase 6, the U.S. declares U.S. Government Stage 3, and the CDC Director declares the PSI Category, the DOC Planning and Intelligence Chief will notify the DOC Incident Manager that implementation for adult social distancing should move to the Alert Stage for a Category 2/3 Pandemic and to the Standby Stage for a Category 4/5 pandemic. The DOC Incident Manager will notify the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative.

2. In WHO Pandemic Phase 6, when the U.S. Government declares U.S. Government Stage 4 and there is the first human case in the U.S., the DOC Planning and Intelligence Chief will notify the DOC Incident Manager that implementation for adult social distancing should move to the Standby Stage for a Category 2/3 Pandemic and to the Activate Stage for a Category 4/5 pandemic. The DOC Incident Manager will notify the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative.
3. In WHO Phase 6 and U.S. Government Stage 5, when the CMUL and the Surveillance Unit Leader, identify the first laboratory-confirmed cluster of infection with a pandemic virus and evidence of community transmission in Minnesota or Minnesota’s geospatial-temporal region (e.g. epidemiologically linked cases from more than 1 household), they will notify the DOC Planning and Intelligence Chief that implementation should move to the Activate Stage for a Category 2/3 Pandemic. The DOC Incident Manager will notify the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative. For a Category 4/5 Pandemic, movement to the Activate stage already will have occurred.
4. The CMUL notifies the Clinical Team Coordinator, the Infection Control Coordinator, and the Disease Containment Team Lead.
5. The Disease Containment Team Lead notifies the School Closure/Child Social Distancing Liaison and the Workplace/Adult Social Distancing Liaison.

III. Use of Adult Social Distancing Interventions by Pandemic Severity

The table that follows depicts MDH implementation of adult social distancing interventions in the WHO, U.S., and Minnesota Pandemic Phases in accordance with the CDC Pandemic Severity Index. This table may change as CDC guidance changes, and as more is known about the effectiveness of non-pharmaceutical interventions and the epidemiology of a novel or pandemic influenza virus.

Pandemic Virus*

WHO Phase	U.S. Stage	MN Response Phase	Adult Social Distancing Severity Category 1	Adult Social Distancing Severity Category 2/3***	Adult Social Distancing Severity Category 4/5
WHO Phase 6 Efficient and Sustained Human-to-Human Transmission	U.S. Stage 3 Widespread Human Outbreaks in Multiple Locations Overseas	MN Response Phase P1 Sustained Human-to-Human Transmission Overseas			
	U.S. Stage 4 First Human Case in North America	MN Response Phase P2** Suspected/Confirmed Case in North America			

Pandemic Virus* - Continued

WHO Phase	U.S. Stage	MN Response Phase	Adult Social Distancing Severity Category 1	Adult Social Distancing Severity Category 2/3***	Adult Social Distancing Severity Category 4/5
	U.S. Stage 5 Spread Throughout U.S.	MN Response Phase P3 Widespread Outbreak in U.S.			
		MN Response Phase P4 Suspected/Confirmed Human Case in Minnesota			
		MN Response Phase P5 First Laboratory-confirmed Cluster in Minnesota or Minnesota's Epidemiologic Region and Evidence of Community Transmission	Generally not recommended	Consider	Recommend
		MN Response Phase P6 Widespread Throughout Minnesota	Generally not recommended	Consider	Recommend

* Minnesota SEOC and MDH DOC are partially activated in Minnesota Response Phases 2 and 3 and fully activated in Minnesota Response Phases 4, 5, and 6.

** If the first human case in North America is in Minnesota, then Minnesota Response Phase 4 would occur at this point.

*** When this table reflects that MDH will consider a measure, the CMUL will make a recommendation to the Planning and Intelligence Chief who will communicate it to the DOC. The DOC Incident Manager will communicate it to the Command Structure at the SEOC in accordance with Attachment F-1.

IV. Key Activities for Implementation of Adult Social Distancing

MDH will escalate readiness for adult social distancing using the CDC Pandemic Severity Index and the triggers of Alert, Standby, and Activate. The timing of these activation stages is reflected in the table that follows.

Pandemic Severity Index	WHO Phase 6, U.S. Government Stage 3	WHO Phase 6, U.S. Government Stage 4 and First Human Case in U.S.	WHO Phase 6, U.S. Government Stage 5 and First Laboratory-Confirmed Cluster in Minnesota or Minnesota's Geospatial-Temporal Region – cases without an epidemiologic link to each other
	1	Alert	Standby
2 and 3	Alert	Standby	Activate
4 and 5	Standby	Standby/Activate	Activate

1. Alert Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 3, and the CDC Director designates the PSI Category as 2/3:

The DOC Command Staff and the MDH SEOC representatives will confer and make a recommendation to the MDH Commissioner and the SEOC as to whether adult social distancing should occur and to what extent. (CDC recommends that adult social distancing be *considered* for a Category 2/3 Pandemic). The key factor these staff will assess in making this recommendation is the epidemiology of the virus in outbreaks that have occurred in the world to date. This recommendation may change as the U.S. government declares U.S. Stages 4 and 5.

- If the recommendation at this time is for adult social distancing to occur, the Operations Chief will notify the CMUL.
 - The DOC Incident Manager will recommend, through the SEOC Command Structure, that Alert actions for adult social distancing should commence.
- b. If the PSI is 4 or 5 (CDC *recommends* adult social distancing), the DOC Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed through Alert and Standby actions. In the latter situation, MDH will quickly move through to the Standby stage.
 - c. The Operations Chief will request that the Clinical Management Unit take the Alert actions in this Technical Annex. Other MDH Command Staff will request that their units take the Alert actions in their annexes (e.g. communications will take the Alert actions in the Communications Annex including coordinating with the SEOC to announce this Alert stage to specific audiences and the general public).

- d. The CMUL will oversee the Alert actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning Alert actions. The primary roles of this Unit for the Alert stage for adult social distancing are to:
- Finalize a pre-developed plan for protecting adults through social distancing in the community (as part of the overall Community Disease Mitigation Plan) for submission to the MDH Planning and Intelligence Chief for SEOC approval in accordance with **Attachment F-1**. This plan will include recommendations on cancellation or postponement of large public gatherings (e.g. concerts, theater showings, stadium events), modifications to mass transit to decrease passenger density, and the potential for “snow days.” (MDH has initiated work on recommendations for closure/modified access to public venues, and cancellation of public gatherings.);
 - Finalize pre-developed infection control and adult social distancing messages to employers and the general public concerning hand hygiene/respiratory etiquette at work and at home; exclusion of workers who are sick from the workplace; and social distancing in the community;
 - Work with MDH Communications Command Staff to widely disseminate messages on adult social distancing through media and other channels;
 - Ensure that messages/materials for various audiences are up-to-date and technically correct; and
 - Provide technical expertise to other state agencies and local public health as they work with businesses, local units of government, and other audiences to trigger the Alert actions in their social distancing plans.
- e. The Workplace/Adult Social Distancing Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions concerning adult social distancing.

2. Standby Actions

- a. When WHO declares Phase 6, and the U.S. declares U.S. Government Stage 4, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that Standby actions commence. If the Pandemic Severity Index Category is 4 or 5, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed to activation. In the latter situation, MDH will quickly move to the Activate stage.
- b. The Operations Chief will request that the Clinical Management Unit take the Standby actions in this Technical Annex. Other MDH Command Staff will request that their units take the Standby actions in their annexes (e.g. communications will take the Standby actions in the Communications Annex including coordinating with the SEOC to announce the Standby stage to specific audiences and the general public).
- c. The CMUL will oversee the Standby actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning Standby actions. The primary roles of this Unit for the Standby Stage for adult social distancing are to:
- Recommend modifications to the plan for protecting adults through social distancing in the workplace and the community as more becomes known about the epidemiology of the pandemic virus for submission to the SEOC;
 - Update infection control, social distancing, and home care messages/materials for various audiences as necessary and as more is known about the epidemiology of the pandemic virus; and

- Provide technical expertise to other state agencies and local public health as they work with businesses, local units of government, and other audiences to trigger the Standby actions in their plans.
- d. The Workplace/Adult Social Distancing Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions concerning adult social distancing.

3. Activate Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 5, and the first laboratory-confirmed cluster in Minnesota or Minnesota's Geospatial-Temporal Region occurs (e.g. epidemiologically linked cases from more than one household), the MDH Planning and Intelligence Chief will recommend, through the DOC that activation should commence. The DOC will notify the SEOC of this recommendation.
- b. The Operations Chief will request that the Clinical Management Unit take the activation actions in this Technical Annex. Other MDH Command Staff will request that their units take the activation actions in their annexes (e.g. communications will take the activation actions in the Communications Annex including coordinating with the SEOC to announce the Activation Stage to specific audiences and the general public).
- c. The CMUL will oversee the activation actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning activation actions. The primary roles of this Unit for the activation stage for adult social distancing are to:
 - The CMUL, the Surveillance Unit Leader, and the Planning and Intelligence Chief will coordinate in order to recommend modifications of adult social distancing measures (e.g. closure of additional venues or "snow days"), and prepare for recommendations of how long adult social distancing measures should remain in effect. The Surveillance Unit will monitor the epidemiology of the pandemic in Minnesota. This is addressed in the Surveillance Annex;
 - Provide technical expertise to update infection control, workplace social distancing and community social distancing messages/materials for various audiences as necessary; and
 - Provide technical expertise to other state agencies and local public health as they work with businesses, local units of government and other audiences to activate their plans.
- d. The Workplace/Adult Social Distancing Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions concerning adult social distancing.

4. Actions to Deactivate Community Mitigation Measures

- a. The Surveillance Unit will monitor pandemic virus in Minnesota through various surveillance systems in accordance with the Surveillance Annex. The CMUL, the MDH Surveillance Unit Leader, and the MDH Planning and Intelligence Chief will consult on when deactivation for adult social distancing measures is advisable. The Planning and Intelligence Chief will make a recommendation to the MDH DOC Incident Manager on the timing for deactivation of adult social distancing measures. The DOC Incident Manager will communicate this recommendation to the SEOC. In making the recommendation, the Planning and Intelligence Chief will separately consider each category of community mitigation measure.
- b. The Operations Chief will request that the Clinical Management Unit take actions to deactivate adult social distancing measures. Other MDH Command Staff also will request that their units take actions to deactivate these measures (e.g. communications will take the deactivation actions in the Communications Annex including coordinating with the SEOC to announce the deactivation stage to specific audiences and the general public).

- c. The CMUL will oversee the deactivation actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning deactivation. The primary roles of this Unit for the deactivation stage for adult social distancing are to:
- Develop, and disseminate through the DOC and SEOC, guidance on continued hand hygiene/respiratory etiquette in the workplace, cleaning of workplaces, and exclusion of employees who are sick;
 - Provide technical expertise to other state agencies and local public health as they work with businesses, local units of government and other audiences to trigger the deactivation actions in their plans; and
 - Ensure that messages/materials for various audiences are up-to-date and technically correct.

Technical Annex 4: Social Distancing of Children, Adolescents, and Post-Secondary Students

I. Introduction

Purpose

The purpose of this Technical Annex is to address how MDH will operate in relation to child social distancing to mitigate the impact of a pandemic in Minnesota.

Scope

This Technical Annex addresses the operational plan for MDH in relation to recommendations for child social distancing measures. Additional MDH Annexes address topics that also will be critical to successful implementation of social distancing to protect children (e.g. Surveillance Annex, Communications Annex).

A. Lead Division, Section, Unit or Office

Division of Infectious Disease Epidemiology, Prevention, and Control

B. Internal Support Division(s), Section(s), Unit(s) or Office(s)

Office of Emergency Preparedness (OEP)
MDH Legal Unit

C. External Support

Local Public Health
Local Emergency Managers
Minnesota Homeland Security and Emergency Management
Minnesota Department of Education
Minnesota Office of Higher Education
Minnesota Department of Human Services
American Red Cross

D. MDH All-Hazards Annex Interfaces

- | | |
|--|---|
| <input type="checkbox"/> Behavioral Health for Response Staff Annex | <input checked="" type="checkbox"/> Mass Dispensing Annex |
| <input type="checkbox"/> Care of the Dead Annex | <input type="checkbox"/> MDH Workspace Annex |
| <input checked="" type="checkbox"/> Clinical Care Annex | <input type="checkbox"/> Medical Care Annex |
| <input checked="" type="checkbox"/> Communications Management Annex | <input type="checkbox"/> MN Responds Medical Reserve Corps Annex |
| <input type="checkbox"/> Community Disease Containment Annex | <input type="checkbox"/> Needs Assessment Annex |
| <input type="checkbox"/> Compensation/Claims Unit Annex | <input checked="" type="checkbox"/> Partner/ MDH Communications Annex |
| <input type="checkbox"/> Cost Unit Annex | <input type="checkbox"/> Patient Care Coordination |
| <input type="checkbox"/> Demobilization Unit Annex | <input type="checkbox"/> Personnel Training Annex |
| <input type="checkbox"/> Disease, Injury, Exposure & Follow-Up Annex | <input type="checkbox"/> Personnel Transportation Annex |
| <input type="checkbox"/> DOC Communications Annex | <input type="checkbox"/> Pre-Hospital Care Annex |
| <input type="checkbox"/> Documentation Unit Annex | <input type="checkbox"/> Procurement Unit Annex |
| <input type="checkbox"/> Drinking Water Protection | <input checked="" type="checkbox"/> Public Education & Outreach Annex |
| <input type="checkbox"/> Environmental Hazards Remediation | <input type="checkbox"/> Regulatory Compliance Unit Annex |
| <input type="checkbox"/> Facilities Annex | <input type="checkbox"/> Resources Unit Annex |
| <input type="checkbox"/> Food Safety | <input type="checkbox"/> Sanitation Annex |
| <input type="checkbox"/> Food Unit Annex | <input type="checkbox"/> Security Annex |
| <input type="checkbox"/> Hardware & Systems Support Annex | <input checked="" type="checkbox"/> SNS Coordination |
| <input type="checkbox"/> Health & Safety Annex | <input type="checkbox"/> Staffing/Human Resources Annex |

- | | |
|--|--|
| <input type="checkbox"/> Health Alert Network Annex | <input type="checkbox"/> Supplies & Equipment Transportation Annex |
| <input type="checkbox"/> Hotline Annex | <input type="checkbox"/> Supplies/Equipment Annex |
| <input checked="" type="checkbox"/> Incident Profiling & Forecasting Annex | <input type="checkbox"/> Tactical Communications Annex |
| <input checked="" type="checkbox"/> Infection Control Annex | <input type="checkbox"/> Time Unit Annex |
| <input checked="" type="checkbox"/> Isolation & Quarantine Annex | <input type="checkbox"/> Vector Control |
| <input type="checkbox"/> Just-In-Time Training Annex | <input type="checkbox"/> Victims'/Population Behavioral Health Annex |
| <input checked="" type="checkbox"/> Laboratory | <input type="checkbox"/> Videoconferencing Annex |
| <input type="checkbox"/> Long-Term Follow-Up Protocol Development Annex | |

II. Organizational Structure

A. Command Structure

If the MDH All-Hazards Plan is activated, there is a Clinical Management Unit under Operations in the MDH Incident Command Structure. The Clinical Management Unit has two teams: the Disease Containment Team and the Clinical Infection Control Team (C-ICT). Both teams report to the Clinical Management Unit Leader (CMUL). The CMUL reports to the Operations Chief in the MDH DOC. A diagram of the structure is in **Attachment E-3**.

B. Staff Requirements

Staff roles to fulfill this function are:

Clinical Management Unit

Clinical Management Unit Leader (CMUL)

C-ICT:

Clinical Coordinator

Infection Control Coordinator

C-ICT Members

Disease Containment Team (or I/Q Team):

Disease Containment Team Lead (or Isolation and Quarantine Team Lead)

School Closure/Child Social Distancing Liaison

Workplace/Adult Social Distancing Liaison

C. Notification Structure

1. When the WHO declares Pandemic Phase 6, the U.S. declares U.S. Government Stage 3, and the CDC Director declares the PSI Category, the DOC Planning and Intelligence Chief will notify the DOC Incident Manager that implementation for child social distancing should move to the Alert Stage for a Category 2/3 Pandemic or to the Standby Stage for a Category 4/5 pandemic. The DOC Incident Manager notifies the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative.
2. In WHO Pandemic Phase 6, when the U.S. Government declares U.S. Government Stage 4 and there is the first human case in the U.S., the DOC Planning and Intelligence Chief will notify the DOC Incident Manager that implementation for child social distancing should move to the Standby Stage for a Category 2/3 Pandemic or to the Activate Stage for a Category 4/5 pandemic. The DOC Incident Manager notifies the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative.
3. In WHO Phase 6 and U.S. Government Stage 5, when the CMUL and the Surveillance Unit Leader identify the first laboratory-confirmed cluster of infection with a pandemic virus and evidence of community transmission in Minnesota or Minnesota's geospatial-temporal region

(e.g. epidemiologically linked cases from more than one household), they will notify the DOC Planning and Intelligence Chief that implementation should move to the Activate Stage for a Category 2/3 Pandemic. The DOC Incident Manager will notify the MDH Commissioner and MDH State Emergency Operations Center (SEOC) Representative. For a Category 4/5 Pandemic, movement to the Activate stage already will have occurred.

4. The CMUL notifies the Clinical Team Coordinator, the Infection Control Coordinator, and the Disease Containment Team Lead.
5. The Disease Containment Lead notifies the School Closure/Child Social Distancing Liaison and the Workplace/Adult Social Distancing Liaison.

III. Use of Child Social Distancing Interventions by Pandemic Severity

The table that follows depicts MDH implementation of child social distancing interventions in the WHO, U.S., and Minnesota Pandemic Phases in accordance with the CDC Pandemic Severity Index. This table may change as CDC guidance changes, and as more is known about the effectiveness of non-pharmaceutical interventions and the epidemiology of a novel or pandemic influenza virus.

Pandemic Virus*

WHO Phase	U.S. Stage	MN Response Phase	Child Social Distancing Severity Category 1	Child Social Distancing Severity Category 2/3****	Child Social Distancing Severity Category 4/5
WHO Phase 6 Efficient and Sustained Human-to-Human Transmission	U.S. Stage 3 Widespread Human Outbreaks in Multiple Locations Overseas	MN Response Phase P1 Sustained Human-to-Human Transmission Overseas			
	U.S. Stage 4 First Human Case in North America	MN Response Phase P2** Suspected/Confirmed Case in North America			
	U.S. Stage 5 Spread Throughout U.S.	MN Response Phase P3 Widespread Outbreak in U.S.			
		MN Response Phase P4 Suspected/Confirmed Human Case in Minnesota			

Pandemic Virus* - Continued

WHO Phase	U.S. Stage	MN Response Phase	Child Social Distancing Severity Category 1	Child Social Distancing Severity Category 2/3***	Child Social Distancing Severity Category 4/5
		MN Response Phase P5 First Laboratory-confirmed Cluster in Minnesota or Minnesota’s Epidemiologic Region and Evidence of Community Transmission	Generally not recommended	Consider: ≤4 Weeks	Recommend: ≤12 Weeks
		MN Response Phase P6 Widespread Throughout Minnesota	Generally not recommended	Consider: ≤4 Weeks	Recommend: ≤12 Weeks

* Minnesota SEOC and MDH DOC are partially activated in Minnesota Response Phases 2 and 3 and fully activated in Minnesota Response Phases 4, 5, and 6.

** If the first human case in North America is in Minnesota, then Minnesota Response Phase 4 would occur at this point.

*** When this table reflects that MDH will consider a measure, the CMUL will make a recommendation to the Planning and Intelligence Chief who will communicate it to the DOC. The DOC Incident Manager will communicate it to the Command Structure at the SEOC in accordance with Attachment F-1.

IV. Key Activities for Implementation of Child Social Distancing

MDH will escalate readiness for child social distancing using the CDC Pandemic Severity Index and the triggers of Alert, Standby, and Activate. The timing of these activation stages is reflected in the table that follows.

Pandemic Severity Index	WHO Phase 6, U.S. Government Stage 3	WHO Phase 6, U.S. Government Stage 4 and First Human Case in U.S.	WHO Phase 6, U.S. Government Stage 5 and First Laboratory-Confirmed Cluster in Minnesota or Minnesota's Geospatial-Temporal Region
1	Alert	Standby	Activate
2 and 3	Alert	Standby	Activate
4 and 5	Standby	Standby/Activate	Activate

1. Alert Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 3, and the CDC Director designates the Pandemic Severity Index Category as 2/3:
 - The DOC Command Staff and the MDH SEOC representatives will confer and make a recommendation to the MDH Commissioner and the SEOC as to whether child social distancing should occur and to what extent. (CDC recommends that child social distancing should be *considered* for a Category 2/3 Pandemic). The key factor these staff will assess in making the recommendation is the epidemiology of the virus in outbreaks that have occurred in the world to date. This recommendation may change as the U.S. Government declares U.S. Stages 4 and 5.
 - If the recommendation at this time is for child social distancing to occur, the DOC Manager will recommend through the SEOC Command Structure that Alert actions for child social distancing should commence.
 - The DOC Operations Chief will notify the CMUL and MDH will move to the Alert phase.
- b. If the Pandemic Severity is 4 or 5, (CDC *recommends* child social distancing) the DOC Planning and Intelligence Chief will notify the DOC, which will notify the SEOC, and MDH will quickly move through to the Standby stage.
- c. The Operations Chief will request that the Clinical Management Unit take the Alert actions in this Technical Annex. Other MDH Command Staff will request that their units take the Alert actions in their annexes (e.g. communications will take the Alert actions in the Communications Annex including coordinating with the SEOC to announce this Alert stage to specific audiences and the general public).
- d. The CMUL will oversee the Alert actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning Alert actions. The primary roles of this Unit for the Alert stage for child social distancing are to:
 - Finalize a pre-developed plan (as part of the overall Community Disease Mitigation Plan) on protecting children through school closures and social distancing in the community (to achieve reductions in out-of school social contacts and community mixing) for submission to the MDH Planning and Intelligence Chief for SEOC approval in accordance with

Attachment F-1. This plan will include recommendations on closure of or restrictions for venues where children may congregate:

- Finalize pre-developed infection control guidance to schools (K-12, secondary, post-secondary), childcare centers, students and parents concerning hand hygiene/respiratory etiquette at school and at home; exclusion of students who are sick; actions to protect children through distancing in the community; and care of a sick family member;
 - Work with MDH Communications Command Staff to widely disseminate messages on child social distancing including through the media and the Health Alert Network. (The Minnesota Department of Education (MDE) is developing mechanisms for notifications about school closures to school district personnel, parents, and students.);
 - Ensure that messages/materials for various audiences are up-to-date and technically correct; and
 - Provide technical expertise to other state agencies (particularly MDE, the Department of Human Services (DHS), the Office of Higher Education [OHE]) and local public health as they work with schools and childcare centers to trigger the Alert actions in their plans. MDE is developing mechanisms to distribute educational materials to parents and students.
- e. The School Closure/Child Social Distancing Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions concerning school closures and child social distancing.

2. Standby Actions

- a. When WHO declares Phase 6, and the U.S. declares U.S. Government Stage 4, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that Standby actions commence. If the Pandemic Severity Index Category is 4 or 5, the MDH Planning and Intelligence Chief will recommend, through the Command Structure, that the state proceed to activation. In the latter situation, MDH will quickly move to the Activate stage.
- b. The Operations Chief will request that the Clinical Management Unit take the Standby actions in this Technical Annex. Other MDH Command Staff will request that their units take the Standby actions in their annexes (e.g. communications will take the Standby actions in the Communications Annex including coordinating with the SEOC to announce the Standby stage to specific audiences and the general public).
- c. The CMUL will oversee the Standby actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning Standby actions. The primary roles of this Unit for the Standby Stage for child social distancing are to:
- Recommend modifications to the plan, for submission to the SEOC, for protecting children through social distancing in the community (to achieve reductions in out-of-school social contacts and community mixing) as more becomes known about the epidemiology of the pandemic virus;
 - Update infection control, social distancing, and home care messages/materials for various audiences as necessary and as more is known about the epidemiology of the pandemic virus; and
 - Provide technical expertise to other state agencies (particularly MDE, DHS, OHE) and local public health as they work with schools, childcare centers, businesses, and other sectors to trigger the Standby actions in their plans.
- d. The School Closure/Child Social Distancing Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions concerning school closures and child social distancing.

3. Activate Actions

- a. When WHO declares Phase 6, the U.S. declares U.S. Government Stage 5, and Minnesota has its first laboratory-confirmed cluster in the state or geospatial-temporal region (e.g. epidemiologically linked cases from more than one household), the MDH Planning and Intelligence Chief will recommend, through the DOC, that activation should commence. The DOC IM will notify the SEOC of this recommendation.
- b. The Operations Chief will request that the Clinical Management Unit take the activation actions in this Technical Annex. Other MDH Command Staff will request that their units take the activation actions in their annexes (e.g. communications will take the activation actions in the Communications Annex including coordinating with the SEOC to announce the activation stage to specific audiences and the general public).
- c. The CMUL will oversee the activation actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning activation actions. The role of this Unit for the activation stage for child social distancing is to:
 - The CMUL, the Surveillance Unit Leader, and the Planning and Intelligence Chief will coordinate in order to recommend modifications for child social distancing measures (e.g. restrictions for additional venues), and prepare for recommendations of how long child social distancing measures should remain in effect. The Surveillance Unit will monitor the epidemiology of the pandemic in Minnesota. This is addressed in the Surveillance Annex;
 - Provide technical expertise to update infection control, social distancing and home care messages/materials for various audiences as necessary; and
 - Provide technical expertise to other state agencies (particularly MDE, DHS, OHE) and local public health as they work with schools, childcare centers, businesses, and other sectors to activate their plans. MDE is developing mechanisms to communicate with school district personnel, parents, and students during the time schools are closed.
- d. The School Closure/Child Social Distancing Liaison, guided by the CMUL and the Infection Control Coordinator, will answer day-to-day technical questions concerning school closures and child social distancing.

4. Actions to Deactivate Community Mitigation Measures

- a. The Surveillance Unit will monitor pandemic virus in Minnesota through various surveillance systems in accordance with the Surveillance Annex. The CMUL, the MDH Surveillance Unit Leader, and the MDH Planning and Intelligence Chief will consult on when deactivation is advisable for school closures and child social distancing measures. The Planning and Intelligence Chief will make a recommendation to the MDH DOC Incident Manager on the timing for deactivation of child social distancing measures. The DOC Incident Manager will communicate this recommendation to the SEOC. In making the recommendation, the Planning and Intelligence Chief will separately consider each category of community mitigation measure.
- b. The Operations Chief will request that the Clinical Management Unit take actions to deactivate child social distancing measures. Other MDH Command Staff also will request that their units take action to deactivate these measures (e.g. communications will take the deactivation actions in the Communications Annex including coordinating with the SEOC to announce the deactivation stage to specific audiences and the general public).
- c. The CMUL will oversee the deactivation actions of the Clinical Management Unit and establish a daily check-in meeting(s) for the Unit concerning deactivation. The role of this Unit for deactivation stage for child social distancing is to:
 - Develop, and disseminate through the DOC and SEOC, pre-developed infection control guidance for school opening including hand hygiene/respiratory etiquette, and exclusion of

students who are sick from school. (MDE is developing methods to communicate with school district personnel, parents, and students about re-opening.);

- Provide technical expertise to other state agencies and local public health as they work with schools, businesses, and other sectors to trigger the deactivation actions in their plans; and
- Ensure that messages/materials for various audiences are up-to-date and technically correct.

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Attachment A: Job Actions Sheets
In Progress

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Attachment A-1: Job Action Sheet (In Progress)

Staffing Position Title

*****Read This Entire Position Checklist Before Taking Action*****

Reports to:	
Who Reports to you:	
Responsibilities	
Minimum Required Qualifications	



Activation Phase: Steps taken to get your operations up and running

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

• Incident Phase: Response actions that are part of this position's responsibilities during an incident (Operational Phase)



<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	



• Post-Incident Phase: Responsibilities of this position after the occurrence of an incident (Demobilization phase)

<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

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Attachment B: Resources

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Attachment B-1

Standard Operating Guidelines

The following chart contains a list of standard operating guidelines (SOGs) by which the duties of this supplement are carried out.

	Title of Document	Date Created or Last Updated	Location of SOGs
B-1 SOG A	Procedures for Conducting Isolation and Quarantine Monitoring Calls- Novel Influenza Virus	10/19/06	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\SOG A-Monitoring Procedure.pdf or .doc
B-1 SOG B	Isolation and Quarantine Daily Call Procedure and Script – Novel Influenza	9/1/06	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\SOG B- Daily monitoring script.pdf or .doc
B-1 SOG C	Isolation/Quarantine-Novel Influenza- Incoming Call Log	8/31/06	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\SOG C- I_Q Incoming call log.pdf or .doc
B-1 SOG D	Isolation/Quarantine-Novel Influenza- Daily Call Log Form	8/31/06	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\SOG D- IQ monitoring form.pdf or .doc
B-1 SOG E	Isolation/Quarantine-Household Daily Log Form	8/31/06	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\SOG E- Family Daily Log Form.pdf or .doc

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Attachment B-3
Web Links / Web Addresses

The following chart contains a listing of Internet resources that support this supplement.

Title of Web Link	Specific Web Address
a. Health Professional Information on H5N1 Avian Influenza – Clinical Algorithm and Screening Form	http://www.health.state.mn.us/divs/idepc/diseases/flu/avian/hcp/index.html
b. Minnesota Department of Public Safety Division of Homeland Security and Emergency Management (HSEM) -Service Continuation Planning Guide for Businesses	http://www.hsem.state.mn.us/Hsem_Subcategory_Home.asp?scatid=128&catid=5
c. Minnesota Department of Public Safety Division of Homeland Security and Emergency Management (HSEM) -Local Jurisdiction Service Continuation Planning Guide	http://www.hsem.state.mn.us/Hsem_Subcategory_Home.asp?scatid=128&catid=5

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Attachment C

Local and Regional Partner Roles and Responsibilities (In Progress)

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Attachment C-1

Local and Regional Partner Roles and Responsibilities (In Progress)

The following charts outline the essential activities for which local and regional partners are responsible based on this supplement.

LOCAL			
Essential Activity	Role and Responsibility	Coordinating Entity	Explanation
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	

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Attachment C-1
Local and Regional Partner Roles and Responsibilities (In Progress)

REGIONAL			
Essential Activity	Role and Responsibility	Coordinating Entity	Explanation
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	
		Primary Contributor	

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Attachment D: Local and Regional Guidance Documents

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Attachment D

Local and Regional Guidance Documents

The chart below contains a listing of guidance documents, related to the content of this supplement, MDH has created and provided to local and regional preparedness partners.

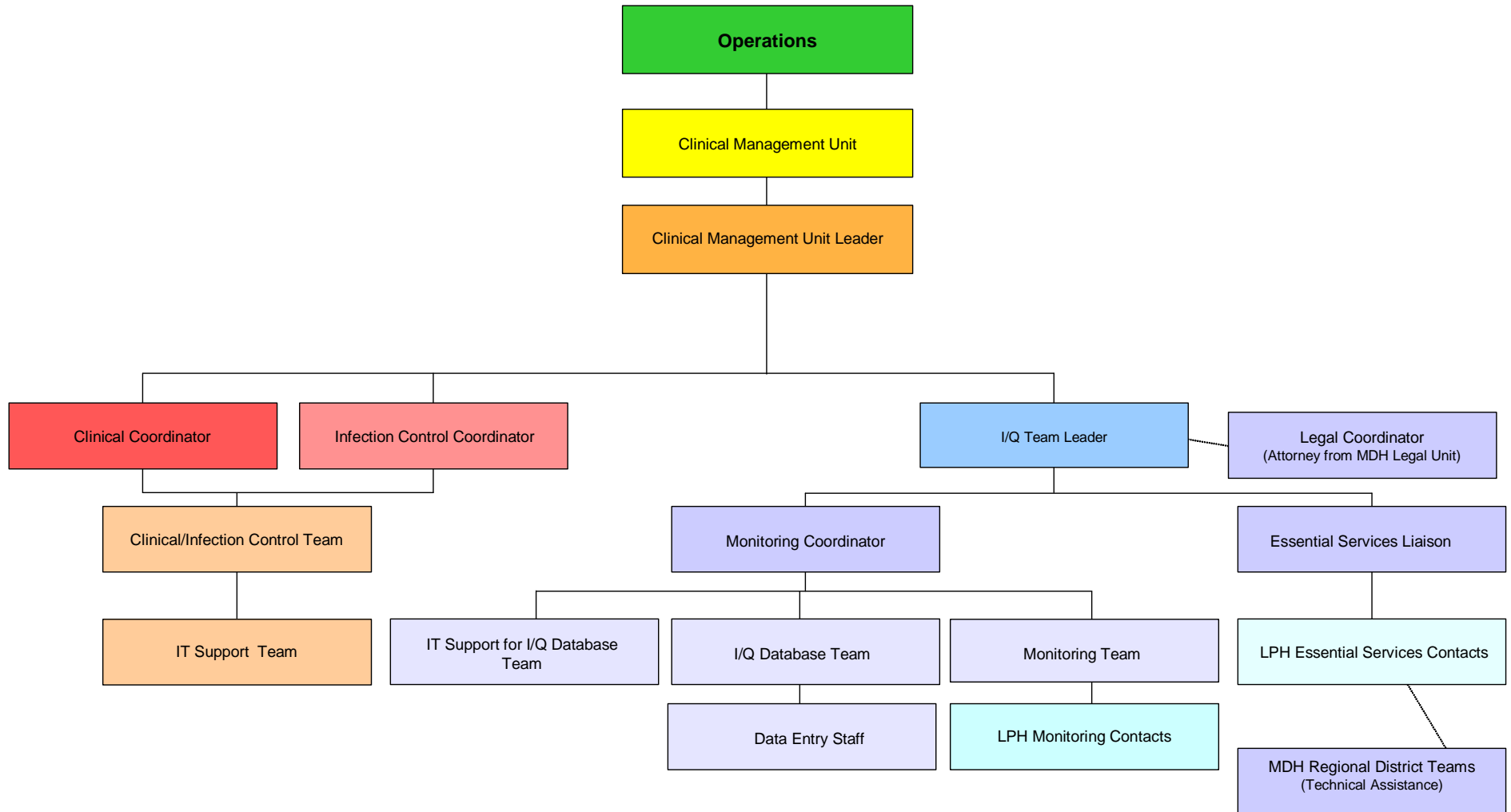
Title of Guidance Document	Date Created or Last Updated	Location of Guidance Document
Attachment D-1 Minnesota Department of Public Safety Division of Homeland Security and Emergency Management (HSEM) -Service Continuation Planning Guide for Businesses	January 2007 Version 1.0	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\Attachment E - Business Pandemic Service Continuation Guide.pdf See Attachment B-3b
Attachment D-2 Minnesota Department of Public Safety Division of Homeland Security and Emergency Management (HSEM) -Local Jurisdiction Service Continuation Planning Guide	January 2007 Version 2.0	K:\ITIH\Unit\Immunization\Pan Flu\Plans\NPI Plan\Attachments\ Attachment F - Local Jurisdiction Pandemic Service Continuation Guide III 10307.pdf See Attachment B-3c

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Attachment E: Supplement Command Structure

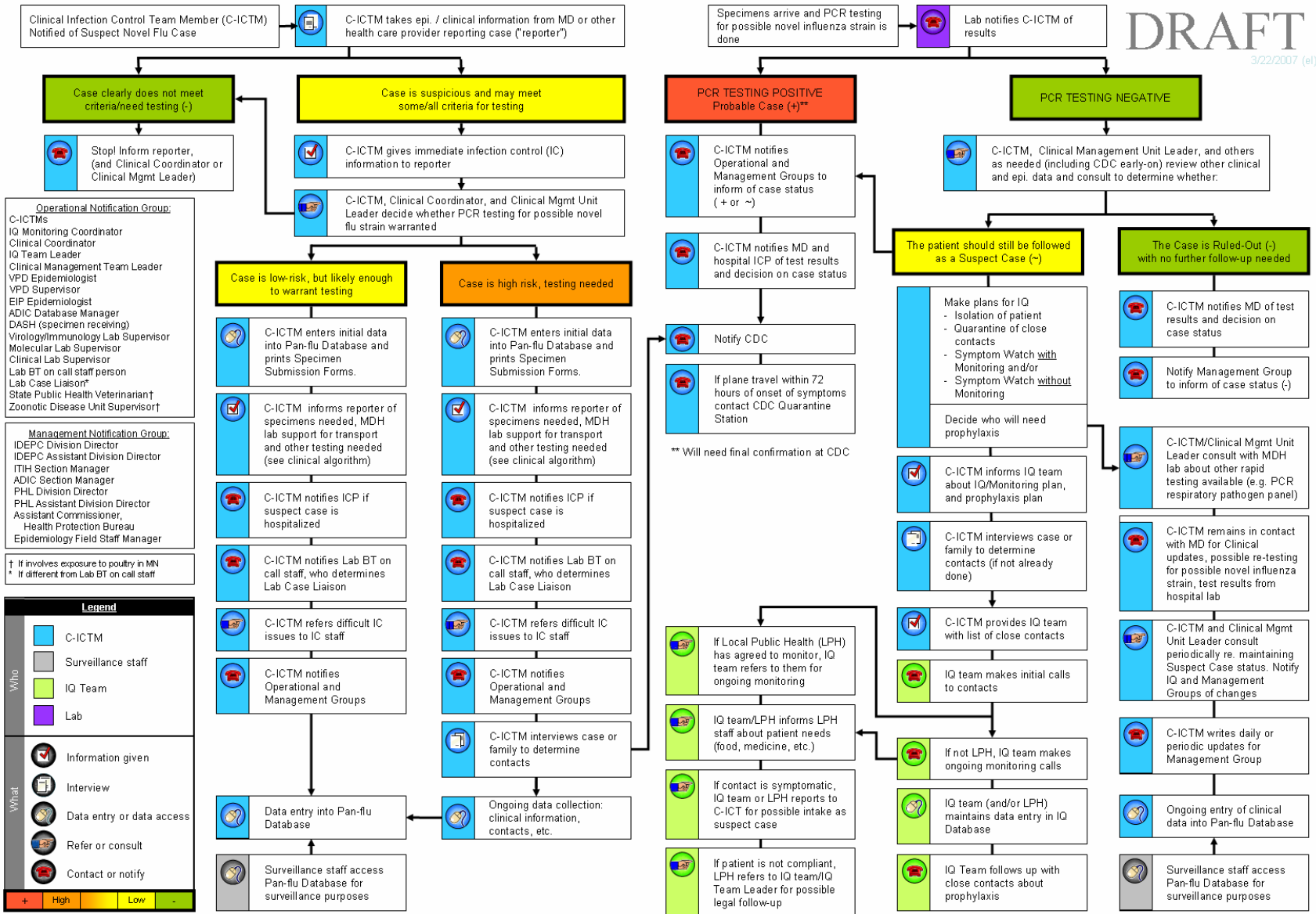
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Attachment E-1: Non-pharmaceutical Interventions – Isolation and Quarantine (case-based)



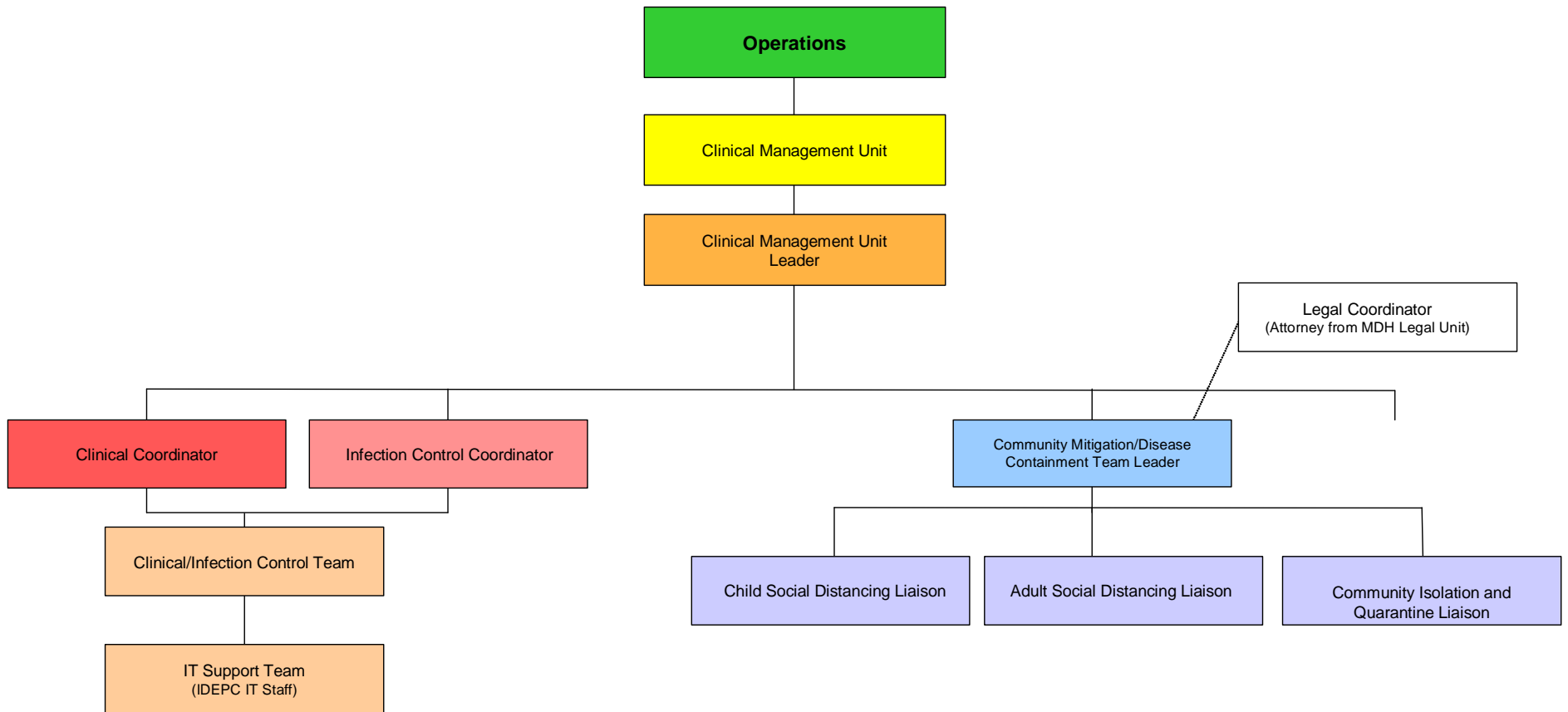
Attachment E-2: Approach to Suspect Human Cases of H5N1 Avian Influenza or Disease Due to Other Novel Influenza Strains

Approach to Suspect Human Cases of Disease Due to Novel Influenza Strains
 During pre-pandemic phase 3, pandemic phases 4-6a, while case-based surveillance is feasible and diagnosis is test-based



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Attachment E-3: Community Wide Mitigation Measures – Non-pharmaceutical Interventions



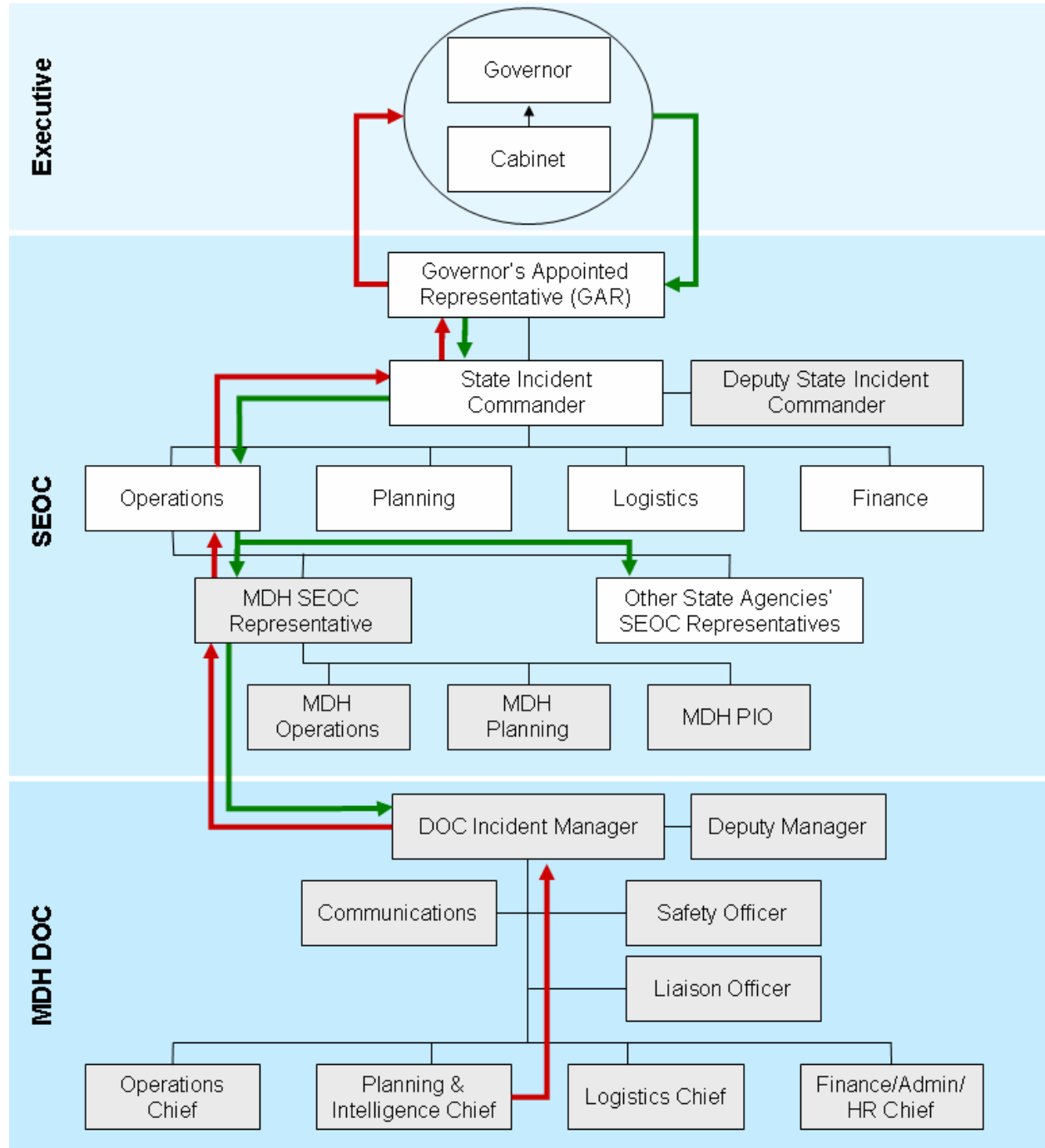
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Attachment F: Supplement Notification Structure

Attachment F-1: Decision making Structure for Community-Wide Strategies to Mitigate Pandemic Influenza

Decision making Structure for Community-Wide* Strategies to Mitigate Pandemic Influenza

(*This structure does not apply to recommendations made to a specific individual and their close contacts – e.g. case-based isolation and quarantine.)



4/5/2007

MDH positions → Recommendation → Decision

References

¹ U.S. Department of Health and Human Services. HHS Pandemic Influenza Implementation Plan. 2006 [cited 2 February 2007]; Available from: <http://www.hhs.gov/pandemicflu/implementationplan/>

² U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

³ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

⁴ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

⁵ Institute of Medicine; Committee on Modeling Community Containment for Pandemic Influenza. Modeling Community Containment for Pandemic Influenza. A Letter Report. Washington D.C.: The National Academies Press; 2006.

⁶ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

⁷ Minnesota Department of Health. MDH Pandemic Influenza Plan. 2006 [cited 1 February 2007]; Available from: <http://www.health.state.mn.us/divs/idepc/diseases/flu/pandemic/plan/plan.html>

⁸ Minnesota Division of Homeland Security and Emergency Management. HPAI and Pandemic Supplement to MEOP. 2007 [cited 1 February 2007]; Available from: http://www.hsem.state.mn.us/Hsem_Subcategory_Home.asp?scatid=126&catid=5

⁹ Minnesota Division of Homeland Security and Emergency Management. HPAI and Pandemic Supplement to MEOP. 2007 [cited 1 February 2007]; Available from: http://www.hsem.state.mn.us/Hsem_Subcategory_Home.asp?scatid=126&catid=5

¹⁰ Minnesota Department of Health. MDH Pandemic Influenza Plan. Attachment D. 2006 [cited 1 February 2007]; Available from: <http://www.health.state.mn.us/divs/idepc/diseases/flu/pandemic/plan/plan.html>

¹² U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

¹³ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

¹⁴ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

¹⁵ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

¹⁶ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

¹⁷ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>

¹⁸ U.S. Department of Health and Human Services. HHS Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States. 2007 [cited 1 February 2007]; Available from: <http://www.pandemicflu.gov/plan/community/mitigation.html>