PANDEMIC INFLUENZA

DEVELOPING CONTINUITY OF OPERATIONS PLANS

Guidelines for Residential Health Care Facilities

Prepared by the Health Facilities and Emergency Medical Services Division

August 2006

This document is based on current knowledge. Given some uncertainty about the characteristics of a new pandemic virus, preparedness planning should allow for flexibility to accommodate new information as it becomes available.
PANDEMIC FLU:
DEVELOPING CONTINUITY OF OPERATIONS PLANS

Guidelines for Residential Health Care Facilities

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SECTION I

INTRODUCTION

In terms of its scope, the impact of a severe pandemic may be more comparable to that of war or a widespread economic crisis than a hurricane, earthquake, or act of terrorism. The distributed nature of a pandemic, as well as the sheer burden of disease across the Nation over a period of months or longer, means that the Federal Government's support to any particular State, Tribal Nation, or community will be limited in comparison to the aid it mobilizes for disaster such as earthquakes or hurricanes, which strike a more confined geographic area over a shorter period of time. Homeland Security Council, National Strategy for Pandemic Influenza: Implementation Plan, May 2006.

This document is designed to assist residential health facilities – assisted living residences, inpatient hospice, nursing homes, and residential facilities for the developmentally disabled – in developing a comprehensive plan to respond to an influenza pandemic.

Comprehensive planning for an unpredictable event is often difficult to justify and sustain given limited resources and more urgent problems. However, planning for an influenza pandemic makes sense for several reasons:

- Pandemic flu has consistently recurred throughout history at intervals of 10 to 50 years. The last pandemic flu outbreak was in 1968 making a recurrence highly likely within the next several years.
- An avian (bird) flu virus with the potential for creating a pandemic has emerged. (Scientists believe that viruses from birds played a role in each of the three pandemics that swept the globe in the last 100 years.)
- Although it is impossible to predict all of the impacts of an influenza pandemic, it is certain that it will create a burden on the economy as a whole. Such an event is expected to create gaps in essential services – such as the availability of water, food, electricity, phone service, medical supplies and care, banking, gasoline and transportation.
- Federal and state governments are currently developing plans and infrastructure so that communities can function during a pandemic. However, it is anticipated that government agencies will only be able to play a limited role during the pandemic itself since they too will be operating at limited capacity and will be responsible for assisting all sectors of the economy. This means that the primary entity for planning and executing the facility plan during a pandemic is you.

This document covers the facility’s role in providing a comprehensive public health response before and during a pandemic influenza event. It requires considerable action on the part of facilities to determine certain “how to’s” that are unique to the facility based on its resident population, staffing, and equipment, such as how to: access updated information on pandemic flu care, address staff shortages, and triage patients to determine if transfer to a higher level of care is appropriate and feasible. To be effective, the facility’s plan must be part of a coordinated community response. Community partners can range from state/local health departments to pharmacists to rotary clubs.
SECTION II

GENERAL ASSUMPTIONS ABOUT A FLU PANDEMIC

Given the constantly changing nature of influenza viruses, the occurrence of pandemics defies precise predictions concerning timing, causative strain and severity of the disease and its international impact. Conditions favoring the emergence of a pandemic virus are, however, well known, and are increasingly being met. – World Health Organization, Strengthening Pandemic Influenza Preparedness and Response. Report by the Secretariat. April 2005

Historical Background. Influenza pandemics have typically occurred every 10-50 years throughout recorded history. There have been three pandemics during the 20th century:

- 1918, which caused 40 million deaths worldwide
- 1957, which caused 1-2 million deaths worldwide
- 1968, which caused 700,000 deaths worldwide

Pandemic Flu Viruses. Influenza viruses that affect humans are divided into two groups: A and B. Only influenza A viruses have pandemic potential. This is because their particular method of evolution is such that human populations have no immunity to the novel (i.e., new) subtype virus and no existing vaccines can provide adequate protection. The avian flu virus - H5N1 - is the subtype currently causing worldwide concern.

Avian influenza normally only infects birds and in some instances, pigs. However, close proximity between infected animals and humans is one of the greatest risks of pathogens mutating and jumping between species.

Conditions for a Pandemic. Three conditions must be met before a pandemic begins:

1) a new influenza A subtype must emerge that has not previously circulated in humans (and therefore there is no pre-existing immunity),
2) this new subtype must be able to cause disease in humans, and
3) the virus must be easily transmissible from human to human. This last condition has yet to occur, but there is evidence that the H5N1 virus is evolving in this direction.

Pandemic Phases. The World Health Organization (WHO), one of the lead entities in shaping the international public health response to a pandemic flu outbreak, has identified six phases that cover a pandemic cycle, as outlined below.

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1 There could be several reasons why there was a decrease in deaths over the course of the 20th century. Some reasons have been attributed to the virulence of the virus as well as the availability of improved medical care. Typically, influenza has the highest death toll in elderly adults. The 1918 pandemic was an anomaly in that the mortality rates were also high for healthy young adults. This may have resulted from an exaggerated immune response in this population that led to inflammatory molecules clogging their airways and subsequent death. (Individuals with weaker immune systems, such as the young and the elderly would not have experienced this exaggerated response.) It has also been suggested that the apparently healthy young adults who died in 1918 may have in fact been infected with tuberculosis, explaining their unusually high mortality rates. Decreased mortality in subsequent pandemics has also been attributed to the peak occurring when children were on holiday from school and so did not infect one another and bring it home to their families.
### Period: Inter-Pandemics

<table>
<thead>
<tr>
<th>Phase 1:</th>
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<tbody>
<tr>
<td>No new influenza subtype detected in humans</td>
<td>Risk of human infection considered low</td>
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<tr>
<th>Phase 2:</th>
<th></th>
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<tbody>
<tr>
<td>No new influenza subtype detected in humans</td>
<td>New animal influenza subtype circulating, and risk of human infection substantial</td>
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### Period: Pandemic Alert

<table>
<thead>
<tr>
<th>Phase 3:</th>
<th></th>
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<tbody>
<tr>
<td>Human infection with new subtype has occurred</td>
<td>No instances of human to human spread, or rare instances of spread to a close contact</td>
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<thead>
<tr>
<th>Phase 4:</th>
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<tbody>
<tr>
<td>Small infection cluster(s), meaning less than 25 people, lasting less than 2 wks</td>
<td>Limited human-to-human transfer (epidemiological evidence of two generations of human-to-human transmission).</td>
</tr>
<tr>
<td>Spread is highly localized, suggesting that virus not well adapted to humans</td>
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<tr>
<th>Phase 5:</th>
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<tbody>
<tr>
<td>Large infection clusters, meaning 25-50 people, lasting from 2-4 wks</td>
<td>Although spread is still localized, virus seems to be adapting to human transmission</td>
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<tr>
<td>Substantial pandemic risk</td>
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### Period: Pandemic

<table>
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<tr>
<th>Phase 6:</th>
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<tbody>
<tr>
<td>Increased and sustained transmission in the general population</td>
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### Impact of a Pandemic

- When a pandemic flu virus emerges, its global spread is considered inevitable. It is expected to encircle the world within three months.
- Epidemics will last 6-8 weeks in the impacted community.
- Most people will be susceptible to a pandemic virus, but not all will develop clinical illness. In past pandemics approximately 25% of the population (cumulative across all waves) suffered clinical illness, and about 50% (cumulative) showed evidence of infection from serology.
- It is likely that multiple pandemic waves (periods during which community outbreaks occur across the country) will occur. Each wave is expected to last 2-3 months.
Section III

PLANNING: GETTING STARTED

Section Contents

A. Understanding the Big Picture: Role of Public and Private Sectors
   1. Federal Government
   2. State Government
   3. Regional/Local Government Entities

B. Elements of Conducting Planning
   1. Selecting the Internal Planning Team
   2. Leadership
   3. Involving Local Partners
   4. Accessing Planning Tools
III.A. Understanding the Big Picture: Role of Public and Private Sectors

The local level is where the effects will be felt and where the response needs to occur. Centers for Disease Control and Prevention, Guidance for Pandemic Influenza Supplemental Cooperative Agreement. April 2006.

III.A.1 Federal Government. The federal government is responsible for coordinating with the international community to contain outbreaks in order to prevent a pandemic from occurring and to provide funding to state and local entities to create an infrastructure to respond to the pandemic. If a pandemic occurs, however, the federal government has made clear that it will be unable to provide the level of assistance that it would provide during a localized event, such as a hurricane or earthquake disaster, since the pandemic would be national in scope and affect manpower across all sectors of society.

Pandemic Alert Period
♦ Monitoring outbreaks overseas.
♦ Assisting international community to contain outbreaks so that they do not become pandemics (through culling bird populations and preventing disease spread in those areas among humans).
♦ Delaying introduction of pandemic to the US through travel restrictions.²
♦ Providing funding and guidance to local communities (through the state) to develop community responses.
♦ Assisting companies capable of developing a pandemic flu vaccine and stockpiling antivirals for prevention and treatment.

Pandemic Period
♦ Developing a pandemic flu vaccine (the vaccine can only be developed after the actual virus strain has materialized).
♦ Distributing pandemic vaccine and antivirals, as they become available, to state agencies.

III.A.2 State Government. State government is primarily responsible for allocating federal resources to local entities responsible for preparedness and response. This role is guided by the Governor’s Expert Emergency Epidemic Response Committee (GEEERC) – an advisory committee tasked with assisting in the development of a comprehensive state response plan in the event of an emergency epidemic.

The Colorado Department of Public Health and Environment (CDPHE) has responsibilities including but are not limited to:

Pandemic Alert Period
♦ Distributing federal pandemic flu funding to local health departments and other entities.
♦ Providing public information.
♦ Establishing an influenza surveillance system to detect an outbreak in the state.

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² Western Samoa and Iceland avoided the 1918 flu entirely through the use of travel restrictions.
Developing infrastructure for monitoring an outbreak, providing guidance, and distributing pandemic flu vaccines, antivirals, and general medical supplies during the pandemic. For example, CDPHE is establishing:
- a system to test suspected pandemic flu cases for positive confirmation.
- a communication system that will allow facilities to communicate and coordinate with each other during emergency events.
- process for conducting mass vaccinations when a pandemic flu vaccine becomes available.

- Coordinating public health and medical volunteers.
- Coordinating mortuary services.

**Pandemic Period**

- The Governor may implement policies through Executive Orders that prevent transmission and assist in the response efforts. Potential executive orders include but are not limited to:
  - ordering social distancing and geographic quarantining where appropriate (see Section V.D. Infection Control for the definitions of these two measures), and
  - suspending certain professional licensing statutes to enable more medical professionals, including physicians, nurses, physician assistants and emergency medical technicians to assist in a disaster.

- Providing information throughout the course of the pandemic regarding best practices.
- Analyzing of surveillance data for potential risk factors to prioritize or reprioritize the targeting of antivirals and/or vaccine.
- Disseminating information regarding status of the outbreak to all health care providers at regular intervals.

**III.A.3 Regional/Local Governmental Entities.** The core response to a pandemic will be at the local level, therefore it is critical for facilities to coordinate with local health departments or county nursing services (see Appendix A for listing) in developing the facility response. In addition, local offices of emergency management (see Appendix B for listing) can be of assistance.

Primary responsibilities of local health departments include, but are not limited to:

- Developing health care coalitions within the community to create a coordinated response.
- Providing guidance and tools to the many partners in the community who will be involved in the response.
- Implementing a local surveillance system to monitor for pandemic flu in the community and disseminating surveillance guidelines to physicians, clinics, hospitals and other healthcare facilities.
- Developing plans for distributing antiviral medications.
- Guiding activities that educate and prepare the general public to provide home care for persons with pandemic flu.

**Pandemic Period**

- Distributing vaccinations or antivirals through points of dispensing (PODS).
- Assisting with surge capacity (overflow in health facilities of individuals presenting with pandemic flu symptoms) coordination. Efforts may vary by local health department and may include mobilizing health care workers and volunteers and establishing temporary infirmaries.
- Assisting in the implementation of social distancing measures (discouraging group gatherings, such as sport events) in order to delay the transmission of pandemic flu.
- Coordinating with volunteer organizations to assist people who are quarantined in their homes by providing basic supplies, such as food and water.
- Disseminating information regarding status of the outbreak to all health care providers at regular intervals.
III.B. Elements of Conducting Planning

III.B.1 Selecting the Internal Planning Team. The size and composition of the internal planning group depends on available resources and the scope of the services that the facility plans to continue during the pandemic.

Size of Planning Group. If your facility has:
♦ ≤ 5 employees, you may choose to do the planning yourself.
♦ 5-10 employees, you may want to ask one or two to assist you.
♦ > 10 employees, you should create a team.

Membership. Develop a planning team that can address all the essential functions associated with continuing operations during a pandemic. Team members may include, but not be limited to the following, as appropriate:
♦ facility administrator or designee
♦ medical director
♦ director of nursing
♦ physician staff
♦ nursing staff
♦ other direct caregivers
♦ infection control
♦ dietary
♦ pharmacy services
♦ staff training and orientation
♦ engineering/maintenance personnel
♦ housekeeping
♦ financial personnel, including accounting/payroll
♦ corporate representative
♦ subcontractors

III.B.2 Leadership. The planning group should have a lead member who can make decisions based on and supported by the facility’s budget.

III.B.3 Involving Local Partners. Coordinating with community partners allows you to draw upon their knowledge, expertise, and resources to identify challenges and devise solutions. These partnerships will significantly increase your ability to continue operations during an emergency situation as well as during recovery, when the disaster is over. The following table lists some potential community partners.
<table>
<thead>
<tr>
<th>Entity</th>
<th>Who They Are</th>
<th>Benefits of Coordination</th>
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</table>
| Local health departments and county nursing services                   | There are 15 local health departments and 39 county nursing services in the state responsible for delivering public health services (such as immunizations and food inspection) throughout the state. A list of local health departments and county nursing services is available in Appendix A. | Coordination can:                                                                                                                          
|                                                                      |                                                                                                                                                                                                             | – provide an understanding of how public health resources will be allocated during the pandemic flu event as well as your role in a community response.                                                                                     |
|                                                                      |                                                                                                                                                                                                             | – help identify resource gaps (for example, if all facilities are using one vendor in their back-up plan).                                                                                                                                     |
|                                                                      |                                                                                                                                                                                                             | – prior and during the pandemic allow the facility to access current data on surveillance, diagnostic testing, vaccines, infection control measures, etc.                                                                                     |
| Local offices of emergency management (OEMs)<sup>3</sup>               | These offices are tasked with preparedness, prevention, response and recovery from all emergencies and disasters, including but not limited to pandemic flu. A list of OEMS is available in Appendix B.        | Coordination can:                                                                                                                          
|                                                                      |                                                                                                                                                                                                             | – help you in developing or reviewing your overall emergency preparedness plan or your pan flu coordination for the facility                                                                                                                       |
|                                                                      |                                                                                                                                                                                                             | – answer questions regarding how emergency preparedness resources will be allocated during a disaster.                                                                                                                                          |
|                                                                      |                                                                                                                                                                                                             | – make available emergency preparedness training programs.                                                                                                                                                                                     |
|                                                                      |                                                                                                                                                                                                             | – during the pandemic, expected to assist in food distribution activities, transportation. In is anticipated that their services will be coordinated with local public health agencies and police.                                                     |
| Alternative sources of physician and nursing care                     | These include entities such as local medical societies, individual medical practitioners, nurse registry list, home health agencies, and temporary nursing pools.                                                | Establishing relationships prior to a crisis can increase your ability to access medical and nursing services during a pandemic.                                                                                                                    |
| Medical vendors                                                       | This includes pharmacies and vendors of key medical supplies, such as oxygen.                                                                                                                                   | Contact these vendors to discuss their continuity of operations during a pandemic.                                                                                                                                                              |
| Other similar residential facilities                                  | This includes other facilities that provide residential as well as coordination services to vulnerable adult populations, including the elderly and disabled.                                                                    | Consider developing mutual aid agreements for cooperation during an emergency event. Cooperation can include the ability to transfer between facilities when a crisis occurs or to jointly coordinate child care or elder care for essential personnel. |
| Local area hospitals                                                  | Providers of emergency acute care.                                                                                                                                                                             | During a pandemic flu, emergency rooms may be overwhelmed. After September 1, 2007 hospitals will be funded to outreach to other health facilities in the region.                                                                             |

<sup>3</sup> Many OEM’s are organized within the Sheriff’s Department. Also, the Sheriff’s Dispatch Center can usually locate the local emergency manager and other local officials, so they Sheriffs’ offices are a good 24-hour contact.
### COMMUNITY PARTNERS

<table>
<thead>
<tr>
<th>Entity</th>
<th>Who They Are</th>
<th>Benefits of Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>National volunteer emergency assistance organizations</td>
<td>This includes entities such as the Red Cross, Salvation Army, and the Medical Reserve Corps.</td>
<td>During the pandemic, the Red Cross may help with distribution of food, masks and other supplies such as cots and blankets. Since travel may be restricted during a pandemic, volunteers will probably only serve in their home areas. See Appendix C for further information on the support activities that they can and cannot provide. The Medical Reserve Corps are teams of local volunteer medical and public health professionals who contribute their skills and expertise, particularly during times of community need. There are currently two teams in Colorado, one in El Paso County and one in Larimer County.</td>
</tr>
<tr>
<td>Community volunteer organizations</td>
<td>This includes organizations such as Colorado Volunteer Organization Active in Disasters (COVOAD), churches, and rotary clubs</td>
<td>These organizations can be effective in mobilizing volunteers during a disaster.</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>This includes local police departments and sheriffs’ offices</td>
<td>During a pandemic, a health care facility may be viewed as a place to obtain assistance, if such assistance is not available elsewhere. Talk with local law enforcement in advance about securing your facility to control unruly crowds, since police officers may not be readily available during a pandemic. (Law enforcement officers may be ill or may be called upon to enforce travel restrictions and quarantines.) You may also want to consider using private security companies.</td>
</tr>
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</table>

In the meantime, however, you may want to contact your local hospital to discuss and formulate patient triage protocols during a pandemic event.
III.B.4 Accessing Planning Tools

Facility Preparedness.

General Websites. The federal Department of Health and Human Services has developed a website to assist with planning efforts: www.hhs.gov/pandemicflu/plan/. The Colorado Department of Public Health and Environment also has a website addressing pandemic flu efforts at the state level, which can be found at: www.cdphe.state.co.us/bt/panflu.html.

Planning Guides. You may also want to review the following:


♦ Long Term Care and Other Residential Facilities Pandemic Influenza Planning Checklist, U.S. Department of Health and Human Services (www.pandemicflu.gov/plan/LongTermCareChecklist.html).

♦ Guidelines for Business Readiness, Colorado Department of Public Health and Environment (www.cdphe.state.co.us/bt/index.htm)

Household Preparedness. Encourage your staff and the residents’ families to develop household preparedness plans.

General Websites. There are several websites that staff and resident families may find useful in developing responses to a wide range of disasters, such as pandemics, including ReadyColorado.org and PrepareColorado.org (an American Red Cross link that lists the local Red Cross chapters and also prompts individuals to get training about first aid).

Planning Guides. You may want to distribute the following document to facility staff and resident families:

SECTION IV - CORE PLAN ELEMENTS

Section Contents

A. Emergency Staffing Plan
   1. Defining Essential vs. Non-Essential Functions
   2. Preparing for Reduced Staffing

B. Mitigation (efforts to reduce adverse impacts of a potential disaster)

C. When Pandemic Flu is Reported in Your Community: Initial Control Measures
   1. Keeping Pandemic Flu out of Your Facility
   2. Diagnosing Pandemic Flu
   3. Delivering Care to Residents with Pandemic Flu
IV.A. Emergency Staffing Plan

The goal of any emergency staffing plan is to reassign workers to areas of greatest need during a disaster. Workforce Management Online, June 2006

IV.A.1. Defining Essential vs. Non-Essential Functions

Assumptions

- A pandemic will result in disruption to normal operations, such as the ability to obtain prescriptions through the resident’s pharmacist.
- Due to reduced staffing, facilities may only be able to conduct those functions that are most critical to continued operations.

Steps

- Categorize business functions. For example, functions could be defined as:
  - Essential: if not conducted poses a life safety risk (providing hydration)\(^4\) or their disruption would create a significant disruption of services (payroll for staff and vendors) or
  - Important: difficult to operate without, but the organization could function for a period of time.
  - Non-essential: disruption would merely be an inconvenience.
- Specifically identify non-essential functions that will be temporarily halted during a pandemic period.
- Develop response strategies for the disruption of “essential” functions. Response strategies for “important” functions are also recommended, particularly if the disruption of such functions would negatively impact the facility’s recovery time after the first pandemic wave.
- Response strategies should include:
  - Prioritization of functions. (Within the list of essential functions, determine which ones are most critical. Examples of prioritization factors include the length of time that the organization can operate without restoring the function to capacity, who is impacted by the loss of the function and the type of impact. Identify residents with special needs – such limited ambulation and medical fragility – that must be accommodated.)
  - Level of staffing, including number and qualifications needed to continue the function.
  - Tasks associated with restoring the function.
  - External sources for restoring the function, i.e., vendors. Ask vendors about their continuity of operations plans during a pandemic and establish a phone tree for contacting them.
  - Identify the employee(s) responsible for restoring the function. Include contact information.

\(^4\) Critical functions should include but not be limited to: adequate water and food supply, minimum level of caregiver staff, preventing bedsores, supply of life-saving prescriptions, provision of physician and nursing care need for acute conditions if they arise.
✓ Remember the “Rule of Three.” Incorporate in your strategy three alternative personnel – the initial designee and two back-ups for staff, pharmacists and other vendors since absenteeism may reach 40 percent at the peak of the pandemic.

IV.A.2 Preparing for Reduced Staffing

Assumptions

- Assume that up to 40 percent of your staff may be absent for a period of 2 weeks or longer at the height of a pandemic wave, with lower levels of staff absent for a few weeks on either side of the peak.

- Reasons for employee absenteeism may include:
  - personal illness, or caring for ill family members.
  - under home quarantine due to an ill household member.
  - caring for children dismissed from school\(^5\) or for other relatives.
  - public transportation closures.
  - community containment measures and quarantines.
  - staying home due to safety concerns.

Steps

Pandemic Alert Period

✓ Estimate number and qualifications of staff needed to provide critical functions.

✓ Conduct an assessment of the factors, other than illness, that may affect your staffing level during a pandemic. Factors may include, but not be limited to, who:
  - Works well under pressure.
  - Has viable transportation to and from work. (If there are mass transit restrictions, consider establishing alternative transportation arrangements.)
  - Has children who need day care or other obligations that may require them to stay at home. (Consider assisting employees with their child care or elder care needs.\(^6\))

✓ Explore methods of obtaining additional skilled and unskilled staffing. Determine the extent to which the facility can utilize volunteers.

✓ Address human resources issues:
  - Check medical and disability insurance policies to ensure coverage for pandemic influenza, including employee time if ordered into quarantine.
  - Develop and distribute a policy about what will happen if employees do not report to work during the pandemic flu crisis.

Pandemic Period

✓ Consider providing separate sleeping accommodations and necessary provisions to the essential staff to prevent them from contracting the disease.

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\(^5\) Clinical attack rates for seasonal and pandemic influenza are highest among children; it has been shown that closing schools and vaccinating children has reduced community influenza rates. “National Strategy for Pandemic Influenza: Implementation Plan.” Homeland Security Council, May 2006. p. 108.

\(^6\) Child care and elder care may make sense for essential personnel only if it can be conducted in a way that prevents influenza transmission.
Show your staff that you appreciate their personal sacrifices during this time. Consider:

- giving recognition to employees for continued attendance.
- delivering food boxes for the families of the caregivers.
- providing wellness checks for the family members of the staff.
IV.B. Mitigation


Mitigation is efforts taken prior to any disaster – such as a pandemic – to reduce its adverse impacts on the facility.

Assumptions

- Facilities typically maintain limited inventories of supplies on-site and depend on just-in-time restocking.
- Pandemics have the potential of crippling a facility’s ability to restock quickly, since it can impact critical infrastructure – such as food and power supply, transportation, communications, and health care.

Steps. Consider on-going mitigations efforts that the facility can realistically commit to in order to reduce the impact of a flu pandemic. Below is a list of on-going mitigation efforts that facilities should consider.

- Vaccinations. (For the rationale for obtaining the vaccinations listed below, see Section V.C. Vaccinations and Antivirals)
  - Obtain the following vaccinations for residents, staff, and (where feasible) vendors who come into contact with residents:
    - seasonal influenza
    - appropriate pneumococcal vaccines, particularly for those over the age of 65.
  - Track vaccinations obtained by staff and residents.

- Supplies. Establish a system for enhancing storage capabilities and allowing for rotation of stock. Develop the system for and consider obtaining extra supplies of:
  - Water and food
  - Prescription medications
  - General medical supplies
  - Hygiene supplies
  - Personal protective equipment (See Section V.D. Infection Control for definition and more information)

- Physical Plant
  - Conduct routine maintenance
  - Ensure backup generator is in working order and that sufficient fuel is available. If the generator is powered by gasoline, extra supplies of gasoline should be stored outside of the building and away from ignition sources.
IV.C. When Pandemic Flu is Reported in Your Community - Initial Control Measures

...limiting exposure and delaying transmission can change the shape of the epidemic curve and mitigate the social and economic impact of a pandemic by reducing the number of people who become ill at any given time. Homeland Security Council. National Strategy for Pandemic Influenza: Implementation Plan, 2006.

IV.C.1 Keeping Pandemic Flu Out of Your Facility

Assumptions

■ It is anticipated that most individuals with pandemic influenza will experience typical influenza symptoms – which commonly include fever, headache, cough, body aches, and weakness. (For differences between cold and seasonal flu symptoms, please see Appendix D.)

■ Some people, who are sick with influenza, and therefore contagious to others, show few or no symptoms throughout their illness.

■ Transmission of pandemic flu will be similar to that of seasonal flu – occurring when an infected person coughs or sneezes within 3 feet of a susceptible person.

■ Minimizing contacts will reduce or delay the chance for pandemic flu to enter into your facility.

Steps

✓ When there are suspected or confirmed case(s) of pandemic flu in your community, implement policies designed to reduce the spread of infection, such as:

- measures to reduce contact between residents and infected persons to include:
  - limiting visitors to resident family members.
  - requiring individuals who enter the facility to have fever checks (to determine if there is a chance of infection).
  - requiring hand hygiene (see Section V.D. Infection Control for definition) before and after entering the facility.

- instituting unpunitive leave for employees who have or are suspected to have pandemic flu or who have members in their household who likewise are ill. The policy should address when staff may return to work after recovery.

- other infection control measures (see Section V.D. Infection Control for more information).

IV.C.2 Diagnosing Pandemic Flu

Assumptions

■ Reliable rapid testing to diagnose a pandemic flu virus may not become available for some time after the specific pandemic virus is identified.

■ The state laboratory will likely have the capability and capacity to perform polymerase chain reaction (PCR) testing for a pandemic flu virus. Several regional public health laboratories may also have this capability.
PCR testing is highly reliable but will be limited in its availability. Due to limited laboratory testing capacity, testing will be prioritized. The state health department will issue guidance on the prioritization.

Testing will be most important during the early stages of a pandemic.

Steps
✓ Obtain and follow most recent guidance from local/state health department regarding symptoms of pandemic flu and testing.
✓ Look for signs and symptoms pandemic flu in staff and residents.
✓ Conduct testing as appropriate.

IV.C.3 Delivering Care to Residents with Pandemic Flu

Assumptions
■ If the pandemic flu has been reported in your community, hospitals and other acute care centers may be overwhelmed and unable to deliver care to additional patients.
■ Delays the spread of pandemic flu within your facility will increase your ability to continue operations effectively.

Steps
For more detailed information, including definitions, regarding the steps outlined below regarding:
− antiviral medications, see Section V.C. Vaccinations and Antivirals.
− infection control measures, such as, cough/sneezing etiquette, hand hygiene, personal protective equipment, isolation and quarantine, and, see Section V.D. Infection Control.

✓ Isolate residents with flu-like symptoms and treat with antiviral medication to reduce severity of disease, if antivirals are available.
✓ Identify close contacts to these residents who do not yet have symptoms and recommend:
  o quarantine and daily monitoring for symptom onset.
  o antiviral prophylaxis, if available.
✓ Require staff caring for residents suspected/diagnosed of having pandemic flu to use personal protective equipment. If possible, cohort these staff (i.e., dedicate staff to serve only pandemic flu patients).
✓ Implement the following infection control procedures for the entire facility:
  o hand hygiene,
  o cough/sneezing etiquette, and
  o housekeeping requirements.
SECTION V

POLICY RECOMMENDATIONS

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V.A.  Plan Activation

V.A.1  Leadership Responsible for Activation

The plan should identify who will provide coordination and direction for the various elements of the plan. Of particular importance is the identification of who will serve as the lead during a pandemic flu event. This individual must be able to authorize expenditures, as needed to respond to the pandemic. Further, the plan should delineate a team who will support the crisis manager, along with their specific responsibilities. Each of these positions should have one or two back-ups, in case the initial designee is unable to fulfill his/her duties.

V.A.2  When to Activate Plan Components

Unlike many other crises that are located in specific isolated sites (such as tornadoes or floods) and mostly strike at infrastructure, pandemic flu is expected to affect the entire nation and mainly impact people. This means that there may not be intact communities that can reach out and assist other communities in crisis. To ensure continuing operations, facilities cannot wait until the pandemic flu hits, but instead must initiate incremental responses during the various pandemic phases (interpandemic period, pandemic alert period, during the pandemic itself).

For the purpose of planning, the federal government has developed response stages that correspond to the pandemic phases – as shown in the following table.

You may find these response stages useful for the purposes of determining when to activate various components of your plan. The table below, shows recommendations for when some activities should be implemented.
## Preliminary Template for Activation

<table>
<thead>
<tr>
<th>Federal Response Stages</th>
<th>WHO Pandemic Phases</th>
<th>Facility Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 0:</strong></td>
<td>Phases 1-2</td>
<td></td>
</tr>
<tr>
<td>New domestic animal</td>
<td><em>Inter Pandemic</em></td>
<td>– Develop pandemic flu response plan in coordination with your community partners, including but not limited to: the local health department, local Office of Emergency Management, and vendors.</td>
</tr>
<tr>
<td>outbreak in at-risk country</td>
<td><em>Phase 3</em></td>
<td>– Review guidelines for seasonal flu.</td>
</tr>
<tr>
<td></td>
<td><em>Pandemic Alert</em></td>
<td>– Train staff regarding the plan and specifically their role during the activation of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Review infection control techniques, particularly hand hygiene.</td>
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<tr>
<td></td>
<td></td>
<td>– Ensure that all staff, residents (and if possible contractors who come into the facility) are appropriately vaccinated with pneumococcal and seasonal flu vaccinations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Conduct quarterly drills of the plan or portion of the plan.</td>
</tr>
<tr>
<td><strong>Stage 1:</strong></td>
<td><em>Phase 3</em></td>
<td></td>
</tr>
<tr>
<td>Suspected human outbreak</td>
<td><em>Pandemic Alert</em></td>
<td>– Update contact information for all employees and residents.</td>
</tr>
<tr>
<td>overseas</td>
<td></td>
<td>– Conduct monthly drills of the plan or portion of the plan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Ensure staff have received training regarding infection control procedures.</td>
</tr>
<tr>
<td><strong>Stage 2:</strong></td>
<td>Phases 4 &amp; 5</td>
<td></td>
</tr>
<tr>
<td>Confirmed human outbreak</td>
<td><em>Pandemic Alert</em></td>
<td>– Monitor federal/state public health advisories. Access state health department website for outbreak information and obtain information through the media.</td>
</tr>
<tr>
<td>overseas</td>
<td></td>
<td>– Contact local health department for any special instructions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Conduct availability assessment of direct caregivers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Communicate to residents and their families about the implications of pandemic flu for the facility.</td>
</tr>
<tr>
<td><strong>Stage 3:</strong></td>
<td><em>Phase 6</em></td>
<td></td>
</tr>
<tr>
<td>Widespread human outbreaks in multiple locations overseas</td>
<td><em>Pandemic</em></td>
<td>– Monitor federal/state public health advisories. Access state health department website for outbreak information and obtain information through the media.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Contact local health department for any special instructions.</td>
</tr>
<tr>
<td><strong>Stage 4:</strong></td>
<td><em>Phase 6</em></td>
<td></td>
</tr>
<tr>
<td>First human case in North America</td>
<td><em>Pandemic</em></td>
<td>– Monitor federal/state public health advisories. Access state health department website for outbreak information and obtain information through the media.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Contact local health department for any special instructions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Access pandemic flu vaccine, if available, for staff and residents. Plan for an inadequate supply.</td>
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<td></td>
<td></td>
<td>– Require hand hygiene upon entering and leaving the facility.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Post signs for coughing/sneezing etiquette. (See <em>Section V.D. Infection Control</em> for definitions and further information.)</td>
</tr>
<tr>
<td><strong>Stage 5:</strong></td>
<td><em>Phase 6</em></td>
<td></td>
</tr>
<tr>
<td>Spread throughout United States</td>
<td><em>Pandemic</em></td>
<td>– Obtain new guidance on epidemiology (i.e., actions to reduce likelihood of exposure, limit transmission, likelihood of contracting the disease and likelihood of severe illness.</td>
</tr>
</tbody>
</table>

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V.B. Communications

When health risks are uncertain, as likely will be the case during an influenza pandemic, people need information about what is known and unknown, as well as interim guidance to formulate decisions to help protect their health and the health of others. U.S. Department of Health and Human Services. Pandemic Influenza Plan, 2005.

V.B.1 Communicating with Internal Staff

Assumptions
- Employees will have anxiety and fear about the impact of pandemic flu on themselves and their families. Rumors will be generated if information is not made clearly available.

Steps

Pandemic Alert Period
- Obtain updated phone numbers and addresses of employees. Include how each person in the chain is to be notified during an emergency, such as home phone, cell, or beeper.
- Develop and test a phone tree system for communication with staff.
- Encourage staff to develop a personal household preparedness plan. Provide each employee with brochures and/or information links to web sites (see Section III.B.4 Accessing Planning Tools).
- Facilitate the provision of information to staff who are non-English speaking.
- Keep key supervisors informed and have them brief their departmental staff continually.
- Review all privacy of medical information policies and laws. (See new HIPAA Privacy Rule: Disclosures for Emergency Preparedness – A Decision Tool at www.hhs.gov/ocr/hipaa/decisiontool/.)

Pandemic Period
- Respond to employee anxiety about pandemic flu by providing them with credible information (e.g., received from your local health department). Keep employees informed on the number of internal cases and deaths, and how workers can protect themselves and their families. Be direct with employees, even if the information may be frightening.
- Advise staff to be alert for symptoms of pandemic flu exhibited by themselves, co-workers and residents.
- Address rumors and misperceptions promptly.
- Maintain high visibility with staff members to avoid confusion or panic.

V.B.2 Communicating with your Local Health Department

Assumptions
- It is anticipated that your local health department will be a primary source of information regarding care for pandemic flu and distribution of local resources.
Steps

Pandemic Alert Period

✔ Contact your local health department to:
  − get the name of a 24/7 emergency contact for the local health department and provide them with a name a 24/7 emergency contact for your facility.
  − add your facility to Colorado’s Health Alert Network (HAN) to automatically obtain public health updates.
  − advise them of your interest in joining the health care coalition that is planning the community’s response to pandemic flu.

✔ Be alert for signs that might indicate that a staff member or a resident has had contact with someone with the pandemic flu virus. (For example, contact with someone who has traveled to a location where there has been a human outbreak.) If you notice any unusual clusters of illness, notify your local health department officials immediately.

Pandemic Period

✔ Maintain contact with the local health department in order to receive bulletins and updates about best practices on issues such as infection control and treatment.

V.B.3 Communicating with Residents and their Families

Assumptions

✔ Residents and their families will be concerned about the implications of pandemic flu. Communicating information in an organized manner will reduce anxieties.
✔ During a pandemic flu event, there will be an increased demand for information from families and residents and less manpower available to respond to their needs.

Steps

Pandemic Alert Period

✔ Identify one staff person as the “go-to person” when families have questions. (Designate two back-ups, if possible.) Provide a 24/7 telephone number for this person to receive calls.
✔ Ensure contact information for family members or guardians is up-to-date, and includes the preferred way that the family member would like to be reached.
✔ Develop and test a phone tree system for communication with families of residents.
✔ Distribute your facility’s pandemic flu plan to residents and family members. Document this distribution.
✔ Respond to anxiety about pandemic flu by providing residents and families with credible information.
✔ Notify families that if a pandemic overwhelms the staff at the facility, it may be necessary for non-clinical personnel and family members to assist with administrative and environmental tasks.
✔ Understand the federal HIPAA privacy laws.

Pandemic Period

✔ Notify residents and families of any changes that have been made in activity scheduling, transportation, etc.
✔ Phone calls could overwhelm your phone lines. Provide 24-hour switchboard operation, if possible or provide additional information via a recorded phone message or web site.
Remind families that all hands will be needed to provide resident assistance and protection so telephone inquiries should be short, but that you will keep them advised.
✓ Address rumors and misperceptions promptly.

V.B.3 Communicating with the Media

Assumptions
■ During a pandemic, you may receive questions about the status of the facility from the media.

Steps
Pandemic Alert Period
✓ Designate one spokesperson (and two backups) to handle media inquiries and provide contact information for that individual. If possible, use trained spokespersons to do media interviews, especially for television.
✓ Under no circumstances, when communicating with the media, can staff provide any names or identifying information to the media on who is infected. It is imperative to observe resident confidentiality and comply with patient privacy laws, such as HIPPA.
✓ Be honest and accurate when responding to calls, do not speculate.
✓ Never say "no comment." It looks like you are hiding something.

Pandemic Period
✓ Connect to your audience by showing your human side. If there is a tragedy, express your sadness and your sympathy.
✓ Use the media to send messages requesting donations and trained volunteers from the public, as needed.
V.C. Vaccinations and Antivirals

As a pandemic vaccine needs to be a close match to the actual pandemic virus, commercial production cannot begin prior to the emergency and characterization of the pandemic virus....Once the pandemic strain is identified, it would likely take at least six months to produce any significant quantities of the vaccine. – World Health Organization, 2005

V.C.1. Definitions

**Antiviral medications**
Medications used for the treatment of individuals with clinical symptoms of pandemic influenza to reduce the severity of the disease and for prophylaxis.

**Prophylaxis**
Use of the medication to prevent the onset of disease.

**Vaccine, Pandemic**
Vaccine developed against strains of the virus capable of sustained and efficient human-to-human transmission.

**Vaccine, Pneumococcal**
Vaccine that helps prevent pneumococcal disease. This bacterial disease can lead to serious infections of the lungs (pneumonia), the blood (bacterimia) and the covering of the brain (meningitis). Persons at the greatest risk for pneumococcal disease are: people age 65 or older; the very young; and people with special health problems such as alcoholism, heart or lung disease, kidney failure, diabetes, HIV infection, or certain types of cancer.8

**Vaccine, Pre-Pandemic**
Vaccine developed against strains of animal influenza viruses that have caused isolated infections in humans. The effectiveness against a pandemic virus may be limited (since the virus may have mutated significantly). It is anticipated that the use of the pre-pandemic vaccine will be used as a primary vaccination if the match between the pre-pandemic vaccine and the circulating virus is close, or to prime the immune system to respond more quickly to the pandemic vaccine if the match is not close.

**Vaccine, Seasonal Flu**
Vaccine developed against the three strains expected to circulate in the United States during the following season. This is the typical annual flu shot that is widely available.

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8 To learn more, contact the Centers for Disease Control and Prevention (CDC) by visiting the National Immunization Program website at [www.cdc.gov/nip](http://www.cdc.gov/nip), or calling 1-800-232-4636 (1-800-CDC-INFO).
V.C.2 Vaccinations

One of the best ways to control the spread of a pandemic is through the use of vaccines. Since influenza viruses continually evolve and mutate, however, it is impossible to develop a vaccine that matches the pandemic strain until the strain emerges.

In the meantime, however, vaccination with seasonal flu vaccine can prevent secondary infections. CDC estimates that only about 36 percent of health care workers (which includes any residential health care facility employee who has contact with residents) are vaccinated annually.9

Further, a major threat in past influenza pandemics has been the tendency for the viral infection to exhaust the body’s immune capacity. This opens the door for other diseases, such as pneumonia, a bacterial infection that causes the build-up of fluid in the lungs and bronchial passages. Even if treated with appropriate medications, complications from a viral infection can result in prolonged illness or death. It is for this reason that the pneumococcal vaccine is recommended. (In fact, many of the deaths in previous pandemic are attributable to pneumonia caused by secondary bacterial infections.)

Assumptions

- It will take an estimated six to nine months after a pandemic emerges to develop a pandemic vaccine.
- Upon initial development, the pandemic vaccine may be in short supply and therefore will be prioritized and targeted narrowly.
- There may be a limited amount of pre-pandemic vaccines.

Steps

- Track that the following have obtained seasonal flu vaccine:
  - Residents, and
  - Staff (including contract and pool staff)
  - Vendors who come into the facility
- Track that residents who are at the greatest risk for pneumococcal disease receive the appropriate pneumococcal vaccine.
- Understand the state priority for pre-pandemic flu vaccine (which is anticipated to become available when there is an outbreak) and direct staff and residents accordingly.
- Work with your local health department to obtain pandemic flu vaccine for staff and residents as soon as it becomes available.

V.C.3. Antivirals

The use of antivirals is seen as a stopgap measure until a vaccine becomes available. There are currently only two antiviral medications shown to have some efficacy against the current strains

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of the H5N1 virus: oseltamivir (also known as Tamiflu) and zanamivir (also known as Relenza.) Relenza is inhaled orally and can cause bronchial spasms.

Antivirals can be used as prophylaxis (preventing infection) or as a treatment. For adults and adolescents ages 13 and above, the dosages are as follows:

**Tamiflu**
- as prophylaxis: one 75 mg capsule taken once daily for at least 10 days, but it can be used safely for up to 6 weeks. (Antivirals only reduce risk during the period the medication is taken.)
- as a treatment: one capsule taken twice daily for 5 days (for a total of 10 capsules).

**Relenza**
- as prophylaxis: not currently used for prophylaxis.
- as a treatment: two inhalations twice daily.

Although various countries – such as Canada – are stockpiling antivirals so that they are available to all citizens, the World Health Organization is advising against mass administration of antiviral drugs to the general population since this could accelerate the development of drug-resistant strains.

- Antivirals decrease virus excretion and severity of illness of seasonal influenza. **It is unknown how effective it will be against a novel pandemic virus strain.**

**Assumptions**
- Upon the onset of the pandemic effective antivirals are anticipated to be in short supply. (Tamiflu is only being produced by Roche and Relenza is only being produced by GlaxoSmithKline.) As a result, antivirals may be prioritized to front-line health care workers, such as hospital personnel and first responders.
- Because using it as a prophylaxis requires more medication and may result in administering dosages to people who might not become sick anyway, it is assumed that antivirals will only be used as a prophylaxis during initial containment efforts (i.e., within the first communities that it appears on the continent to delay the spread.) For the most part, antiviral medication stockpiles will be used for treatment once a pandemic is underway.

**Steps**
- During a pandemic, contact the local health department for vaccination and antiviral dispensing sites.
- Ensure that vaccinations and antivirals stored at the facility are secured against diversion.
V.D. Infection Control

...when a pandemic begins, a vaccine may not be widely available and the supply of antiviral drugs may be limited. The ability to limit transmission and delay the spread of the pandemic will therefore rely primarily on the appropriate and thorough application of infection control measures.  Pandemic Influenza Plan, Supplement 4, Infection Control, Department of Health and Human Services

Clean hands are the single most important factor in preventing the spread of dangerous germs and antibiotic resistance in health care settings.  Dr. Julie Gerberding, Director, Centers for Disease Control.

Infection control can occur at two levels:
♦ Community level.  For example:  geographic quarantining and social distancing measures.
♦ Facility level.  For example:  standard precautions, cough etiquette, use of personal protective equipment (PPE), isolation, implementing of liberal leave policies for persons with sick family members, and substituting teleconferences for face-to-face meetings.

V.D.1. Definitions

**Cohorting**  Placing residents in a room with other residents who have pandemic influenza.  Staff can be cohorted as well by dedicating them solely to the care of persons with pandemic flu.

**Coughing/Sneezing Etiquette**  Persons who are potentially infectious should  1) cover their nose and mouth when coughing or sneezing; 2) use facial tissues to contain respiratory secretion and dispose of them in a waste container; and 3) wash their hands with soap and water, an alcohol based rub, or antiseptic handwash.  This etiquette applies to spitting as well.

**Hand Hygiene**  Includes both 1) handwashing with plain or antimicrobial soap and water, and 2) use of alcohol-based products (gels, rinses, and foams) that do not require the use of water.

**Isolation**  Separating ill persons from those who have not yet been exposed to prevent transmission.

**Personal Protective Equipment (PPE)**  Equipment used by staff to prevent infection and transmission.  It includes:  gloves, gowns, and face/eye protection (i.e., surgical or procedure mask and goggles or a face shield.)

**Quarantine**  Separation of individuals who have been exposed to infection from those who have not been exposed to the transmissible infection.

**Quarantine, geographic**  Geographic quarantine is the isolation of localities with documented disease transmission from areas still free of infection.  (Geographic quarantine is also called “cordon sanitaire.”)

**Social Distancing**  Preventing transmission of the pandemic virus by limiting or prohibiting group gatherings, such as closing schools and deferring sporting events.
Standard precautions

Set of precautions established by the Centers for Disease Control and Prevention (CDC) to minimize the risk of catching an infection from a resident. Also see the following website: www.cdc.gov/ncidod/hip/ISOLAT/std_prec_excert.htm

Transmission, Droplet

Droplet transmission occurs when droplets generated by an infected person come into contact with the mucous membranes of the eye, nose or mouth of a susceptible person. Droplets are created by the infected person when they cough, sneeze or speak. Typically, a susceptible person becomes infected when they inhale these droplets.

Transmission, Contact

Contact transmission involves the transfer of microorganisms to a susceptible person through skin-to-skin contact. This can occur when staff performs patient care activities that require physical contact, such as turning or bathing the patient.

Transmission, Indirect Contact

Indirect-contact transmission can occur when a susceptible person comes into contact with an object in the patient’s environment that is contaminated – such as a hard surface.

V.D.2. Community Infection Control Measures

Assumptions

- While community infection control measures are not expected to prevent a pandemic after person-to-person transmission becomes well established, they can delay the spread of the disease. In turn, distributing the number of pandemic flu cases that occur over a longer interval will minimize burden of the pandemic on the health care system and the community at large.
- A pandemic is anticipated to come in multiple waves lasting approximately 6-8 weeks each. Individuals not infected by the first wave, may be able to receive a pandemic vaccine prior to subsequent waves.
- Like normal influenza, pandemic flu will probably spread by coughing and sneezing and be transmitted before as well as during the onset of clinical symptoms. Transmission may also occur through direct and indirect contact with infectious respiratory secretions.
- Infected individuals can be contagious even if they show few or no symptoms throughout their illness.
- An infected individual can transmit the disease to persons who are within 3 feet of him/her.

Steps

✓ Comply with community infection control measures issued by the federal or state government. Look on state and federal websites for reliable information. It is anticipated that the media will publicize these measures during Pandemic Alert and Pandemic periods.
V.D.3. Facility Infection Control Measures

General Hygienic Practices

Assumptions
- Hand hygiene will be one of the most important measures to reduce the risks of transmitting infections.
- Typically, the incubation period (interval between infection and onset of symptoms) for influenza is approximately 2 days.
- Some people, who are infected with influenza, and therefore contagious to others, show few or no symptoms throughout their illness.
- Like normal influenza, pandemic flu will probably spread by inhalation of droplets (usually from an infected person’s cough or sneeze) or when a person touches infected material with their hands and then touches a mucous membrane, such as their mouth, nose, or eyes.

Steps
✓ Establish policies for excusing employees when they become ill at work and when an employee who has become ill can return to work.
✓ Provide training on coughing/sneezing etiquette to staff, residents and families. During a pandemic, have readily available: tissues and waste receptacles, and environmental cleaning supplies.
✓ Establish policies on hand hygiene. During a pandemic, have readily available: soap and water, hand disinfection (i.e., alcohol-based products), and disposable towels.
✓ During a pandemic, require handwashing upon entering and leaving the facility.

Hand Hygiene
- If hands are visibly soiled or contaminated with respiratory secretions, wash hands with soap (plain or antimicrobial) and water.
- Unless hands are visibly soiled, approved alcohol-based products for hand disinfection are preferred over antimicrobial or plain soap and water because of their superior microbiocidal activity, reduced drying of the skin, and convenience.
- Hand hygiene should be performed:
  – After blowing/wiping nose
  – After removing gloves
  – Before and after patient contact or contact with potentially infected material
  – After contact with blood and body fluids
  – After taking blood pressure or vital signs from patient
  – When leaving the isolation unit.

For additional guidance on hand hygiene see http://www.cdc.gov/handhygiene/.

Housekeeping

Assumptions
- Although the rate of transmission from contaminated hard surfaces is unknown, influenza viruses may live up to 2 days on such surfaces.
Steps
✓ During a pandemic, clean surfaces that are frequently touched with hands at least daily. Develop policies and procedures for employees to keep their work areas clean (such as phones and keyboards.)

Isolation and Quarantining
Assumptions
■ Isolation and quarantine may be used during the early stages of pandemic flu in your community. However, as the pandemic progresses and the number of cases mount, these measures may cease to be effective.
■ Isolation and quarantining may be particularly effective in containing further transmission if antiviral prophylaxis is available for persons who may have been exposed to the virus.
■ It is unclear the extent to which the influenza virus can spread through ventilation systems.

Steps
✓ Confine symptomatic residents and their exposed roommates to their room or place symptomatic residents in one area of the facility.
✓ Limit contact for residents with pandemic flu to as few personnel as possible.
✓ Limit the movement and transport of the resident from the room for essential purposes only. If transport or movement is necessary, limit droplet dispersal by masking the resident, if possible.
✓ Consider limiting entry to the facility (including, as appropriate, family members, suppliers and service technicians).
✓ Consider restricting new admissions.
✓ Consider placing residents who need to be isolated in negative pressure rooms, if such accommodations are available.

Protecting Caregivers from Contact with the Pandemic Flu Virus
Assumptions
■ The main route of infection is the inhalation of infected droplets. However, infection can also occur through contact and indirect contact transmission.

Steps
✓ Develop policies for staff who must come into contact with residents who have pandemic flu that includes:
  o Wearing a surgical or procedure mask for close contact with resident.
  o Wearing gloves (gown if necessary) for contact with respiratory secretions.
  o Wearing protective eye gear if there is a chance for spray.
  o Performing hand hygiene after contact with infectious residents.

Additional Resources
► Department of Health and Human Services, Pandemic Influenza Plan, Supplement 4, Infection Control (at: http://www.hhs.gov/pandemicflu/plan/sup4.html) Section IV of this supplement may be of particular interest. This section contains basic infection control
principles, the management of infectious patients, and practices for health care personnel (regarding issues ranging from the use of PPE to the handling of linen and laundry.)
V.E. Reducing the Need for Surge Capacity


Assumptions

■ There will not be sufficient staff, facilities, equipment and hospital beds needed to serve the large numbers of people who will become ill.
■ Ambulance services and other medical responders may be overwhelmed.
■ Overflow of patients in need of acute care services as well as care for pandemic flu illness will be provided by temporary infirmaries – if there is sufficient manpower and medical material to operate such facilities. It is anticipated that local offices of emergency management will be involved in establishing these temporary sites.

Steps

✓ Develop a plan that can be activated during a pandemic to respond to acute health care conditions that would typically be cared for in an emergency room but cannot be done due to lack of adequate transport or hospital overcrowding. Elements of the plan may include:
  – alternate ways of transporting patients to acute care centers, between facilities, or to temporary infirmaries if ambulance and medical responders are not be available.
  – coordination with local hospital regarding the triaging of various acute care conditions that typically would result in an emergency room visit. In some cases, hospitals may be able to send teams to facility.
  – responding to some acute health care conditions onsite. Explore methods of obtaining physician and nursing support during a pandemic, such as through county medical society, local physician practices, certified home health services, and telehealth.
  – discharging residents with less acute care needs to their families, where feasible.
✓ Develop policy for return of residents after transfer to other facilities.
V.F. Caring for the Deceased during a Pandemic

*Management of the dead is one of the most difficult aspects of disaster response and yet, care of the deceased is often overlooked in disaster planning.* Preparedness and Mitigation in the Americas. World Health Organization. April 2006.

**Assumptions**

- During a pandemic wave, facilities may need to store the dead temporarily in their facilities if local mortuaries are overwhelmed.
- Rate of decomposition is dependent on temperature. The cooler the storage area, the lower the rate of decomposition.
- During a pandemic, federal and state government authorities may issue public health orders temporarily suspending legal requirements regarding the signatures required by families and physicians authorizing the disposition of the bodies.
- It will be important to respect the right of the next of kin to know the location of a loved one who is deceased.

**Steps**

**Pandemic Alert Period**
- Develop a plan for creating temporary morgue. Consult with the local coroner, health department and/or funeral director(s) used by the facility.

**Pandemic Period.** This applies if there are mass fatalities that create disruption in the current burial process.
- Create temporary morgue facilities in the coolest location of your facility.
- Require staff to use personal protective equipment when moving a deceased individual – including:
  - a mask (this is particularly important if the person is recently deceased, since the surrounding environment may contain infectious droplets.)
  - a fluid resistant long-sleeved gown.
  - non-sterile gloves which cover the cuffs of the gown.
  - eye protection (face shield or goggles) if splashing/spraying of body fluids is anticipated.
- Seal the body in an impermeable body bag prior to moving. The outside of the bag should be kept clean. Ensure that the bag is labeled with the individual’s name and date of death.
- Perform hand hygiene after removing PPE.
- If family members wish to view the body, the family should wear gloves and gowns. If family members want to touch or kiss the body, the body parts should be disinfected using a common antiseptic (e.g., 70% alcohol). If the family has contact with the resident immediately after his/her death, masks should be worn to avoid inhalation of any suspended infectious droplets. After removing the PPE, family members should perform hand hygiene.
- Handle and store the bodies of the deceased with dignity and cultural sensitivity to the extent practicable.
- Store bodies in a manner in a manner that minimizes the distress of the other residents and of the staff.
- If bodies are released from the facility without signatures from the family, track specifics on when and where the body was transported.
V.G. Reducing Staff Stress and Burnout

Many people survive disasters without developing significant psychological symptoms. Others, however, may have a difficult time "getting over it." Survivors of trauma have reported a wide range of psychiatric problems, including depression, alcohol and drug abuse, lingering symptoms of fear and anxiety that make it hard to work or go to school, family stress, and marital conflicts. American Psychiatric Association. Disaster Psychiatry. Plan of Action.

Assumptions
■ During a pandemic, staff may experience psychological trauma due to exposure to the personal tragedy of others, long hours of work, and decreased sleep.

Steps
✓ Develop a stress management plan. Elements of the plan may include10:

Pandemic Alert Period
- Providing pandemic flu orientation to employees, including the conditions that they might expect during a pandemic flu event and a review of the facility plan, and their roles during an event.
- Educating staff about signs and symptoms of disaster event stress and coping strategies.
- Cross-training staff, particularly regarding critical business functions.
- Practicing various sections of the facility plan.

Pandemic Period
- Promoting an atmosphere of tolerance and support. Compliments can moderate stress and serve as powerful motivators.
- Rotating people between low-, mid- and high-stress tasks.
- Encouraging caregivers to:
  o Focus on the people they are helping, rather than on what is not being done.
  o Monitor themselves and each other with regard to their basic needs such as food, drink and sleep. Becoming biologically deprived puts them at risk and may also compromise their ability to care for the residents.
  o Know their own personal signs of stress and when they need to take action to prevent becoming overwhelmed.
  o Limit overexposure to the disaster and to media coverage when off shift. This allows for a mental break when not working.
- Ensuring breaks from tending to residents. When on break allow and encourage caregivers to do something unrelated to the traumatic event and which they find comforting.
- Establishing a place for providers to talk to their colleagues and receive support from one another. Telling one’s own story and listening to other’s can alleviate this isolation. Remember that not all people are the same. Some need to talk while others need to be alone. Recognize and respect these differences.

✓ Facilitating sources of comfort for staff – such as talking to clergy or mental health professionals.

10 Many of these elements were excerpted from the Stress Management for Health Providers, Center for the Study of Traumatic Stress, Uniformed Services University School of Medicine.
V. H. Temporary Emergency Closure

The health threat to personnel is the primary threat to continuity of operations during a pandemic. Homeland Security Council, National Strategy for Pandemic Influenza: Implementation Plan, 2006.

Assumptions

- Inadequate finances, staffing, or supplies may require the facility to temporarily close and evacuate residents.
- Some residents may be discharged to their families while others may be transferred to other facilities.

Steps

**Pandemic Alert Period**

- Establish triggers for determining when a temporary shut down of operations is necessary, such as level of available staffing and level of supplies needed to carry out essential functions. Determine who can issue and carry out the order for temporary closure and the level of staffing needed to implement it...
- Determine where your residents will go be discharged to, which may include but not be limited to: other facilities or to their families. Develop mutual aid agreements with other facilities and educate resident families about these options.
- Consider how the residents will be transported.
- Develop policies concerning:
  - Alerting families of the impending closure.
  - Ensuring residents have appropriate identification (such as wrist bands) on their person if they are being transferred to other facilities. Wristbands should contain relevant medical history.
  - Tracking where residents were discharged.
  - Packing the residents’ essentials, such as: several changes of clothing, medical records, and prescription medications.

**Pandemic Period**

- If discharging the resident to his/her family, provide resources to enable the family to provide care at home, such as:
  - the resident’s medications.
  - sending home with the patient written or videotaped instructions regarding caregiving skills.
  - the American Red Cross has home care training that will teach families who need to provide care to the family members who are being discharged. It covers basic medical care, such as insulin injections.
V.I. Recovery: Returning to Routine Operations

Accurate projections of recovery times should be provided and public support and understanding should be solicited during the recovery process. Critical Incident Protocol – A Public Private Partnership. Michigan University, 2000.

Assumptions

- A given community can expect to be affected by a pandemic for 6-8 weeks. Subsequent waves are the norm in previous communities, but it will be important for communities to begin the process of reconstruction after the first wave to reduce adverse economic impacts.
- Recovery will be a tiered process that will involve working with community partners to prioritize and begin restoring essential services.

Steps

- Contact staff and develop a recovery team to coordinate re-opening and to establish priorities for resuming operations.
- Since employees who will rely on you for support after an emergency are your most valuable asset, consider the range of services that you could provide or arrange for, including:
  - cash advances/salary continuation
  - flexible/reduced work hours
  - crisis counseling
  - care packages
  - child/elder care
- Notify families and vendors of timing of re-opening.
- Acknowledge anxiety, grief and distress associated with pandemic. Hold incident stress debriefing for staff (helps people deal with normal reactions to abnormal stress).
- Provide clear, consistent information to residents, their families and any other interested parties regarding the facility’s limitations upon reopening.
- Advise employees, families and residents that additional waves of pandemic may occur and that must prepare accordingly. Vaccinate staff and residents with pandemic vaccine, as it becomes available.
- Maintain continuity of operations in subsequent waves with support employees who are immunized or who have developed immunity.
- Obtain lessons learned from first wave and, if needed change your continuity plan to be better prepared for subsequent waves.
Appendix A
Colorado Local Health Departments and County Nursing Services

Adams
Tri-County Health Department
7000 East Belleview, Suite 301
Greenwood Village, CO 80111-1628
Phone: 303-220-9200; Fax: 303-220-9208

Alamosa
Alamosa County Nursing Service
P.O. Box 178
Alamosa, CO 81101-0178
Phone: 719-589-6639; Fax: 719-589-1103

Arapahoe
Tri-County Health Department
7000 East Belleview, Suite 301
Greenwood Village, CO 80111-1628
Phone: 303-220-9200; Fax: 303-220-9208

Archuleta
San Juan Basin Health Department
P.O. Box 140
Durango, CO 81302
Phone: 970-247-5702; Fax: 970-247-9126

Baca
Baca County Nursing Service
700 Colorado Street
Springfield, CO 81073-1425
Phone: 719-523-6621; Fax: 719-523-6537

Bent
Bent County Nursing Service Authority
701 Park Avenue
Las Animas, CO 81054-1109
Phone: 719-456-0517; Fax: 719-456-0518

Boulder
Boulder County Public Health
3450 Broadway
Boulder, CO 80304-1824
Phone: 303-441-1100; Fax: 303-441-1452

Broomfield
Broomfield Health and Human Services
Department
6 Garden Center
Broomfield, CO 80020-1730
Phone: 720-887-2200; Fax: 720-887-2229

Chaffee
Chaffee County Public Health and Human Services
209 East 3rd Street
Salida, CO 81201-2614
Phone: 719-539-4510; Fax: 719-539-7197

Cheyenne
Cheyenne County Public Health
P.O. Box 38
Cheyenne Wells, CO 80810-0038
Phone: 719-767-5616; Fax: 719-767-8747

Clear Creek
Clear Creek County Nursing Service
P.O. Box 3669
Idaho Springs, CO 80452
Phone: 303-567-3147; Fax: 303-567-3132

Conejos
Conejos County Nursing Service
P.O. Box 78
La Jara, CO 81140
Phone: 719-274-4307; Fax: 719-274-4309

Costilla
Costilla County Nursing Service
P.O. Box 99
San Luis, CO 81152
Phone: 719-672-3332; Fax: 719-672-3856

Crowley
Crowley County Public Health Nursing Service
13 West 3rd Street
La Junta, CO 81050
Phone: 719-267-4750; Fax: 719-267-3114

Custer
Custer County Public Health Nursing Service
P.O. Box 120
Westcliffe, CO 81252
Phone: 719-783-3369; Fax: 719-783-0959

Delta
Delta County Health and Human Services Department
255 West 6th Street
Delta, CO 81416-1626
Phone: 970-874-2165; Fax: 970-874-2175

Denver
Denver Health and Hospital Authority
605 Bannock Street, MC 1914
Denver, CO 80204-4507
Phone: 303-436-6000; Fax: 303-436-7211

Dolores
Dolores County Nursing Service

41
P.O. Box 368
Dove Creek, CO  81324
Phone: 970-677-2387; Fax: 970-677-2948

**Douglas**
Tri-County Health Department
7000 East Belleview, Suite 301
Greenwood Village, CO  80111-1628
Phone: 303-220-9200; Fax: 303-220-9208

**Eagle**
Eagle County Health & Human Services
P.O. Box 660
Eagle, CO  81631
Phone: 970-328-8840; Fax: 970-328-8829

**Elbert**
Elbert County Public Health
P.O. Box 201
Kiowa, CO  80117
Phone: 303-621-3144; Fax: 303-621-3167

**El Paso**
El Paso County Department of Health and Environment
301 South Union Boulevard
Colorado Springs, CO  80910-3123
Phone: 719-578-3199; Fax: 719-578-3192

**Fremont**
Fremont County Public Health Nursing Service
172 Justice Center Road
Canon City, CO  81212-9354
Phone: 719-275-1626; Fax: 719-275-4328

**Garfield**
Garfield County Public Health Nursing Service
195 W. 14th St.
Rifle, CO  81650
Phone: 970-625-5200; Fax: 970-625-4804

**Gilpin**
Gilpin County Public Health & Environmental Services
2960 Dory Hill Road, Suite 120
Black Hawk, CO  80403
Phone: 303-582-5803; Fax: 303-582-5798

**Grand**
Grand County Public Health Nursing Service
P.O. Box 264
Hot Sulphur Springs, CO  80451-0264
Phone: 970-725-3288; Fax: 970-725-3438

**Gunnison**
Gunnison County Public Health
225 North Pine Street, Suite E
Gunnison, CO  81230-2333
Phone: 970-641-0209; Fax: 970-641-8346

**Hinsdale**
Hinsdale County Public Health and Community Services
P.O. Box 277
Lake City, CO  81235
Phone: 970-944-0321; Fax: 970-944-1122

**Huerfano**
Las Animas-Huerfano Counties District Health Department
412 Benedicta Avenue
Trinidad, CO  81082
Phone: 719-846-2213; Fax: 719-846-4472

**Jefferson**
Jefferson County Department of Health and Environment
1801 19th Street
Golden, CO  80401-1798
Phone: 303-271-5700; Fax: 303-271-5702

**Kiowa**
Kiowa County Nursing Service
P.O. Box 414
Eads, CO  81036-0414
Phone: 719-438-5782; Fax: 719-438-2208

**Kit Carson**
Kit Carson County Health and Human Services
P.O. Box 70
Burlington, CO  80807-0070
Phone: 719-346-7158; Fax: 719-346-8066

**Lake**
Lake County Public Health Nursing Service
P.O. Box 626
Leadville, CO  80461
Phone: 719-486-0118; Fax: 719-486-4168

**La Plata**
San Juan Basin Health Department
PO Box 140
Durango, CO  81302
Phone: 970-247-5702; Fax: 970-247-9126

**Larimer**
Larimer County Department of Health and Environment
1525 Blue Spruce Drive
Fort Collins, CO  80524-2004
Phone: 970-498-6700; Fax: 970-498-6772

**Las Animas**
Las Animas-Huerfano Counties District Health Department
412 Benedicta Avenue
Trinidad, CO  81082
Phone: 719-846-2213; Fax: 719-846-4472
Lincoln
Lincoln County Public Health Nursing Services
P.O. Box 125
Hugo, CO 80821-0125; Phone: 719-743-2526
Fax: 719-743-2482

Logan
Northeast Colorado Health Department
700 Columbine Street
Sterling, CO 80751-3728
Phone: 970-522-3741; Fax: 970-522-1412

Mesa
Mesa County Health Department
P.O. Box 20000-5033
Grand Junction, CO 81502-5033
Phone: 970-248-6900; Fax: 970-248-6972

Mineral
Mineral County Public Health
P.O. Box 425
Creede, CO 81130-0425
Phone: 719-658-2416; Fax: 719-658-3001

Montezuma
Montezuma County Health Department
106 West North Street
Cortez, CO 81321-3189
Phone: 970-565-3056; Fax: 970-565-0647

Montrose
Montrose Health and Human Services
1845 S. Townsend
Montrose, CO 81401
Phone: 970-252-5000; Fax: 970-252-5060

Morgan
Northeast Colorado Health Department
700 Columbine Street
Sterling, CO 80751-3728
Phone: 970-522-3741; Fax: 970-522-1412

Otero
Otero County Department of Health
13 West 3rd Street
La Junta, CO 81050
Phone: 719-383-3040; Fax: 719-383-3060

Ouray
Ouray County Public Health Department
P.O. Box 670
Ouray, CO 81427
Phone: 970-325-4670; Fax: 970-325-7314

Park
Park County Public Health Nursing Service
P.O. Box 1194
Bailey, CO 80421
Phone: 303-816-5970; Fax: 303-838-5578

Phillips
Northeast Colorado Health Department
700 Columbine Street
Sterling, CO 80751-3728
Phone: 970-522-3741; Fax: 970-522-1412

Pitkin
Community Health Services, Inc.
0405 Castle Creek Road, Suite 6
Aspen, CO 81611
Phone: 970-920-5420; Fax: 970-920-5419

Prowers
Prowers County Public Health Nursing Service
1001 South Main Street
Lamar, CO 81052-3838
Phone: 719-336-8721; Fax: 719-336-9763

Pueblo
Pueblo City-County Health Department
151 Central Main
Pueblo, CO 81003-4297
Phone: 719-583-4300; Fax: 719-583-4554

Rio Blanco
Rio Blanco County Nursing Service
209 East Main, #103
Rangely, CO 81648
Phone: 970-878-9525; Fax: 970-675-8250

Rio Grande
Rio Grande County Public Health
925 6th Street, Room 101
Del Norte, CO 81132
Phone: 719-657-3352; Fax: 719-657-2286

Routt
Northwest CO Visiting Nurse Association, Inc.
940 Central Park Drive, Suite 101
Steamboat Springs, CO 80487-8816
Phone: 970-879-1632; Fax: 970-870-1326

San Juan
San Juan County Nursing Service
P.O. Box 619
Silverton, CO 81433
Phone: 970-387-0242; Fax: 970-387-5036

San Miguel
San Miguel County Public Health Nursing Service
P.O. Box 949
Telluride, CO 81435
Phone: 970-728-4289; Fax: 970-728-9276
**Sedgwick**
Northeast Colorado Health Department  
700 Columbine Street  
Sterling, CO  80751-3728  
Phone: 970-522-3741; Fax: 970-522-1412

**Summit**
Summit County Public Health Nursing Service  
P.O.Box 2280  
Frisco, CO  80443  
Phone: 970-668-5230; Fax: 970-668-4115

**Teller**
Teller County Public Health  
P.O. Box 928  
Divide, CO  80814  
Phone: 719-687-6416; Fax: 719-687-6501

**Washington**
Northeast Colorado Health Department  
700 Columbine Street  
Sterling, CO  80751-3728  
Phone: 970-522-3741; Fax: 970-522-1412

**Weld**
Weld County Dept of Public Health & Environment  
1555 North 17th Avenue  
Greeley, CO  80631  
Phone: 970-304-6410; Fax: 970-304-6412

**Yuma**
Northeast Colorado Health Department  
700 Columbine Street  
Sterling, CO  80751-3728  
Phone: 970-522-3741; Fax: 970-522-1412
# Appendix B

## Colorado Local Offices of Emergency Management & Sheriffs’ Offices

**Adams**

Adams County Office of Emergency Management  
4201 E. 72nd Ave.  
Commerce City, CO 80022  
Office: 303-289-5441; Fax: 303-322-1404  
24 Hr Contact: 303-288-1535  
Sheriff  
1901 E. Bridge St.  
Brighton, CO 80601  
303-655-3216

**Alamosa**

Alamosa Sheriff’s Office  
1315 17th St., Box 2  
Alamosa, CO 81101-3555  
Office: 719-589-6608; Fax: 719-589-6134  
24 Hr Contact: 719-589-5787  
Sheriff  
1315 17th St., #2  
Alamosa, CO 81101-3555  
719-589-6608

**Arapahoe**

Arapahoe County Emergency Preparedness  
13101 East Broncos Parkway  
Centennial, CO 80112  
Office: 720-874-4186; FAX: 720-874-4158  
24 Hr Contact: 303-795-4711  
Sheriff  
13101 East Broncos Parkway  
Centennial, CO 80112  
720-874-4165

**Archuleta**

Archuleta County Dept. of Emergency Services  
P.O. Box 1507 / 1122 Hwy 84  
Pagosa Springs, CO 81147  
Office: 970-264-4440; FAX: 970-264-8306  
24 Hr Contact: 970-264-2131  
Sheriff  
P.O. Box 638 / 949 San Juan St.  
Pagosa Springs, CO 81147  
970-264-2131

**Baca**

Office of Emergency Services  
741 Main St.  
Springfield, CO 81073-0116  
Office: 719-523-6532 / 719-529-9059; FAX: 719-523-6584  
24 Hr Contact: 719-523-4511  
Sheriff Terry Mullins  
265 E. Second  
Springfield, CO 81073  
719-523-4511

**Bent**

Bent County Emergency Management Coordinator  
11100 County Rd GG .5  
Las Animas, CO 81054  
Office: 719-456-0796; FAX: 719-456-0476  
24 Hr: 719-456-1363  
Sheriff Gerry Oyen  
11100 County Road GG 5  
Las Animas, CO 81054  
719-456-0795
Boulder
Boulder County/City Off of Emerg Management
1805 33rd St.
Boulder, CO 80301
Off: 303-441-4351/ 303-441-3637/303-441-3390
Boulder, CO 80302-5814
FAX: 303-441-3884 / 303-441-4350
23 Hr Contact: 303-441-4444

Sheriff Joseph Pelle

Broomfield
Emergency Management Unit
11600 Ridge Parkway
Broomfield, CO 80021
Office: 720-887-2078; FAX: 720-887-2001
24 Hr Contact: 303-438-6400

Chaffee
Chaffee County Office of Emergency Services
P.O. Box 699 /128 Crestone
Salida, CO 81201
Office: 719-539-7459; FAX: 719-539-7442
24 Hr Contact: 719-539-2596

Sheriff Timothy Walker

Cheyenne
Office of Emergency Management
23200 Hwy, 385
Burlington, CO 80807
Office: 719-346-8538; FAX: 719-346-8542
24 Hr Contact: 719-346-9325

Sheriff Virgil Drescher

Clear Creek
Emergency Management Coordinator
P.O. Box 2000
Georgetown, CO 80444
Office: 719-346-2320 (office); 703-679-2440 (fax)
303-679-2447

Sheriff Don Krueger

Conejos
6683 County Road 13
Box 1586
Conejos, CO 81101
Office: 719-376-5654; FAX: 719-376-5661
24 Hr Contact: 719-376-2196

Sheriff Joe Taylor

Costilla
Costilla Co Emergency Management
P.O. Box 130
San Luis, CO 81152
Office: 719-672-3003
24 Hr Contact: 719-672-3302

Sheriff Roger Benton
Crowley
Crowley Co Emergency Management
311 Main St.
Ordway, CO 81063
Office: 719-262-5555 x230; FAX: 719-267-3192
24 Hr Contact: 719-267-5555 x1

Custer
EM Director/Undersheriff
702 Rosita Ave / P.O. Box 1489
Westcliffe, Co. 81252
Office: 719-783-2270; Fax: 719-783-9085
24 Hr Contact: 719-783-2270

Delta
Director/Coordinator Delta Co Emergency Preparedness
P.O. Box 172
Delta, CO 81416
Office: 970-874-2004; FAX: 970-874-2027
24 Hr Contact: 970-874-2000

Denver
Office of Emergency Management
1437 Bannock St., Rm. 3
Denver, CO 80202
Office: 720-865-7600; FAX: 720-865-7691
24 Hr Contact: 303-640-9999

Dolores
Dolores County Sheriff's Dept.
P.O. Box 505
Dove Creek, CO 81324
Office: 970-677-2257; FAX: 970-677-2880
24 Hr Contact: 970-677-2500

Douglas
Douglas County Emergency Management
4000 Justice Way
Castle Rock, CO 80109
Office: 303-660-7589; Fax: 303-814-3319
24 hour contact: 303-660-7500

Eagle
Eagle County Emergency Management
P.O. Box 850
Eagle, CO 81631
Office: 970-328-8603; Fax: 970-328-8629
24 Hr Contact: 970-328-6611

Elbert
Office of Emergency Management
P.O. Box 295
Kiowa, CO 80117
Office: 303-805-6131; FAX: 303-621-2055

Crowley Co Emergency Management
311 Main St.
Ordway, CO 81063
Office: 719-262-5555 x230; FAX: 719-267-3192
24 Hr Contact: 719-267-5555 x1

Sheriff Jeffrey Keyes
601 Main St.
Ordway, CO 81063
719-267-5555

Sheriff Fred Jobe
P.O. Box 92 / 205 S. 6th
Westcliffe, CO 81252
719-783-2270

Sheriff Fred McKee
P.O. Box 172
Delta, CO 81416
970-874-2000

Director of Corrections/Undersheriff
1437 Bannock St. Room 508
Denver CO 80202
720-865-9567

Sheriff Jerry Martin
P.O. Box 505
Dove Creek, CO 81324
970-677-2257

Sheriff David A. Weaver
4000 Justice Way, Ste. 3625
Castle Rock, CO 80104
303-660-7541

Sheriff Joseph D. Hoy
P.O. Box 359 / 0885 E. Chambers
Eagle, CO 81631
970-328-6611

Sheriff William Frangis
P.O. Box 486
Kiowa, CO 80117
303-621-2027
El Paso
El Paso Co Emergency Mgmt.
305 S. Union Blvd.
Colorado Springs, CO 80910
Office: 719-575-8401; FAX: 719-575-8591
24 Hr Contact: 719-390-5555

Sheriff Terry Maketa
205 S. Cascade Ave.
Colorado Springs, CO 80903
719-520-7204

Fremont
Fremont County Emergency Mgmt.
100 Justice Center Road
Canon City, CO 81212
Office: 719-276-7420; FAX: 719-276-5593
24 Hr Contact: 719-276-5600

Bill Johnson
EM Assistant
Office: 719-276-7421

Bill Johnson
OC Assistant
Office: 719-276-7421

Garfield
Emergency Operations Commander
107 Eighth Street
Glenwood Springs CO 81601
Office: 970-945-0453; Fax: 970-945-6430
Emergency: 970-625-8095

Sheriff Lou Vallario
P.O. Box 249 / 701 Colorado
Glenwood Springs, CO 81601
970-945-0453

Gilpin
Gilpin Co Sheriff's Office
P.O. Box 366
Central City, CO 80427
Off: 303-579-1199; 24 Hr Contact: 303-582-5511

Sheriff
2960 Dory Hill Rd., #300
Golden, CO 80403
303-582-1060

Grand
P.O. Box 264
Hot Sulphur Springs, CO 80451
Office: 970-887-2737; Fax: 970-887-1698

Sheriff P.O. Box 48
Hot Sulphur Springs, CO 80451
970-725-3344

Gunnison
200 E Virginia Av.
Gunnison CO 81230
Office: 970-641-2481; Fax: 970-641-7693
24 hour contact: via Gunnison Communications
970-641-8000

Sheriff
200 N. Iowa
Gunnison, CO 81230
970-641-1113

Hinsdale
Hinsdale Emergency Management
P.O. Box 277
Lake City, CO 81235
Office: 970-944-2806; FAX: 970-944-2630
24 Hr Contact: 970-944-2291

Sheriff P.O. Box 127
Lake City, CO 81235
970-944-2291

Huerfano
Emergency Management
500 S. Albert
Walsenburg, CO 81089
Office: 719-738-1919; FAX: 719-738-1717

24 Hr Contact: 719-738-1044

500 S. Albert Ave.
Walsenburg, CO 81089 719-738-1600

Jackson
Jackson Co Administrator
P.O. Box 1019
Walden, CO 80480
Office: 970-723-4660; FAX: 970-723-4706
24 Hr Contact: 970-723-4242

Jefferson
Jefferson Co Dept. of Emergency Management
800 Jefferson Parkway
Golden, CO 80419
Office: 303-271-4900; FAX: 303-271-4905
24 Hr Contact: 303-277-0211

Kiowa
Kiowa Co Office of Emergency Services
P.O. Box 172/ 1305 Goff Street
Eads, CO. 81036
Office 719-438-2288; Fax 719-438-5327
24 hr. Contact 719-438-5411

Kit Carson
Kit Carson Emergency Management
23200 Hwy 385
Burlington, CO 80807
Office: 719-346-8538; Fax: 719-349-8542

Lake
Lake County Office of Emergency Management
P.O. Box 255
Leadville, Colorado 80461
Office: 719-486-4191; Home Off: 719-486-0246
Fax: 719-486-0139; 24 Hour: 719-486-1249

La Plata
La Plata Co Office of Emergency Management
1060 E. Second Ave.
Durango, CO 81301
Office: 970-382-6270; FAX: 970-382-6298
24 Hr Contact: 970-385-2900

Larimer
Emergency Management Specialist
Larimer Co Emergency Management
2501 Midpoint Dr.
Ft. Collins, Co. 80525
Office: 970-498-5310; FAX: 970-498-9203
24 Hr Contact: 970-498-5141

Las Animas
Las Animas Co Emergency Management
Las Animas County Courthouse
200 East First Street Rm. 103
Trinidad, CO 81082
Office: 719-845-2568; Fax: 719-845-2598
24 Hr Contact: 719-846-2211

Sheriff
2309 E. Main St.
Trinidad, CO 81082-2059
Lincoln
Lincoln Co Emergency Preparedness
P.O. Box 39
Hugo, CO 80821
Office: 719-743-2810; FAX: 719-743-2815
25 Hr. Contact: 719-743-2426

Logan
Logan County Emergency Management
421 N. 4th
Sterling, CO 80751
Office: (970) 522-9700 FAX: (970) 521-0632

Mesa
Mesa Co Office of Emergency Mgmt.
544 Rood Ave.
Grand Junction, CO 81502
Office: 970-244-1763; FAX: 970-255-7178
24 Hr Contact: 970-241-3475

Mineral
Mineral Co Emergency Management
P.O. Box 454
Creede, CO 81130
Office: 719-658-2600; FAX: 719-658-2764
24 Hr Contact: 719-658-2600

Moffat
Moffat Co Office of Emergency Mgmt.
800 W. First St., Suite 100
Craig, CO 81625
Office: 970-826-2303; FAX: 970-824-9780
24 Hr Contact: 970-824-6501

Montezuma
Montezuma County SO
730 East Driscoll
Cortez, CO 81321
Office:970-565-8452 x320; FAX: 970-565-3731
970-565-8452 x303

Montrose
Montrose County Manager
161 S. Townsend Avenue
Montrose, CO 81401
Office: 970-252-4510;FAX: 970-252-4060

Morgan
Morgan Office of Emergency Mgmt.
P.O. Box 1130/212 S. West Street
Fort Morgan, CO 80701
Office: 970-867-8506; FAX: 970-867-7344
24 Hr Contact: 970-867-8531
Otero
Otero Co Office of Emergency Services
P.O. Box 511
La Junta, CO 81050
Office: 719-384-5941; FAX: 719-384-2272
24 Hr Contact: 719-384-5941

Ouray
Ouray County Emergency Manager
P.O. Box 585
Ouray, CO 81427
Phone: 970-325-7272; Fax: 970-325-0225
24 Hour Phone: 970-325-7272

Park
P.O. Box 1373
Fairplay, Co 80440
Phone: 719-836-4372; Fax: 719-836-4113
Alternate Phone: 719-839-1441; 24 Hour Phone: 719-839-4121

Phillips
Phillips Co Office of Emergency Services
221 S. Inter Ocean
Holyoke, CO 80734
Office: 970-854-3778; FAX: 970-854-3811
24 Hr Contact: 970-854-3144

Pitkin
Pitkin County Disaster Coordinator
506 E. Main St., Suite 101
Aspen, CO 81611
Office: 970-920-5234; FAX: 970-920-5307
24 Hr Contact: 970-920-5300

Prowers
Civil Defense Agency
2500 S. Main St./Box 829
Lamar, CO 81052
Office: 719-336-2674; FAX: 719-336-4883
24 Hr Contact: 719-336-3977

Pueblo
Pueblo Co Office of Emergency Preparedness
320 West 10th St., B-1
Pueblo, CO 81003-2995
Office: 719-583-6202; FAX: 719-583-6218
24 Hr Contact: 719-583-6250
http://dem.co.pueblo.co.us

Sheriff
909 Court St.
Pueblo, CO 81003
719-583-6125
Rio Blanco
Rio Blanco Office of Emergency Services  
P.O. Box 1460  
Meeker, CO 81641  
Office: 970-878-5023; FAX: 970-878-3127  
24 Hr Contact: 970-878-5023

Rio Grande
Rio Grande Emergency Management  
640 Cherry St.  
Del Norte, CO 81132  
Office: 719-657-4000; FAX: 719-657-0917  
24 Hr Contact: 719-657-4000

Routt
Routt Co Emergency Management  
P.O. Box 773598  
Steamboat Springs, CO 80477-3598  
Office: 970-870-5551; FAX: 970-879-3992  
24 Hr Contact: 970-879-1090

Saguache
Saguache Co Office of Emergency Management  
P.O. Box 655/ 501 4th Street  
Saguache, CO 81149  
Office: 719-655-2537; FAX: 719-655-2766  
24 Hr Contact: 719-655-2544

San Juan
Office of Emergency Services  
PO Box 178  
Silverton, CO 81433  
Phone: 970.387-5531; Fax: 970-387-0251  
24 hour phone: 970.387.5531  
Email: sjcepm@netscape.net

San Miguel
San Miguel Co Sheriff's Office  
851 63 L Road Telluride, CO 81435  
Office: 970-728-9546; FAX: 970-728-9206  
24 Hr Contact: 970-728-3081  
http://www.co.san-miguel.co.us/emergenc.htm

Sedgwick
Sedgwick Co Emergency Services  
419 Maple St.  
Julesburg, CO 80737  
Office: 970-474-2806; FAX: 970-474-2749  
24 Hr Contact: 970-474-3355

Southern Ute Indian Tribe  
P.O. Box 737  
Ignacio, CO 81137  
Office: 970-563-0100 x2449; Fax: 970-563-0302  
24 Hr Contact: 970-563-4401
Summit
Summit County Sheriff's Office
P.O. Box 210 / 501 N. Park
Breckenridge, CO 80424
970-453-2232; 970-453-7329
www.co.summit.co.us/publicsafety/public1.htm

Teller
Teller County OEM
11400 West Highway 24
Divide, CO 80814
Office: 719-687-8648; FAX: 719-687-8648
24 Hr Contact: 719-687-9652
www.co.teller.co.us/emergency%Preparedness/emerprep_main.htm

Ute Mountain Ute Indian Tribe
P.O. Box 169
Towaoc, CO 81334
Office: 970-564-5441; Fax: 970-564-5443
24 Hr Contact: 970-564-5441 or 970-565-3706

Washington
Washington Co Emergency Mgmt.
150 Ash Ave.
Akron, CO 80720
Office: 970-345-2701
FAX: 970-345-2419 or 970-345-6607
24 Hr Contact: 970-345-2244

Weld
Weld County Sheriff's Office
Director Office of Emergency Management
1950 O Street Greeley Co. 80631
Office: 970-304-6544; FAX: 970-304-6543
24 Hr Contact: 970-304-6540
http://www.co.weld.co.us/sheriff/oem.html

Yuma
Yuma Co Emergency Mgmt.
P.O. Box 512
Yuma, CO 80759
Office: 970-848-3799; FAX: 970-848-3224
24 Hr. Contact: 970-848-0464

City Emergency Managers
Arvada
Jim Lancy
Arvada Off of Emer Prepared; City of Arvada
CMO
8101 Ralston Rd.
Aurora
Arvada, CO 80001
Office: 720-898-7510; FAX: 720-898-7515
24 Hr Contact: 303-540-9949
Email: jlancy@ci.arvada.co.us
Deanne Criswell, Coordinator  
Office of Emergency Mgmt.  
12250 East Iliff Ave. #300  
Aurora, CO 80114  
Office: 303-326-8963; FAX: 303-326-8986  
24 Hr Contact: 303-627-3130  
Email: dcriswell@auroragov.org

Brighton  
Stacy Davis  
Brighton, CO 80601  
Office: 303-655-2043; FAX: 303-655-2047  
Email: sdavis@ci.brighton.co.us

Brush  
Brush Emergency Management  
118 Carson St.  
Brush, CO 80723  
Office: 970-842-5074; FAX: 970-842-5909  
24 Hr Contact: 970-842-5021

Canon City  
Chief Dave Boden  
Canon City Fire Dept.  
1475 N. 15th St.  
Canon City, CO 81212  
Office: 719-275-8666; 24 Hr Contact: 719-275-8666

Colorado Springs  
Bret Waters, Director  
Colorado Springs Fire Department  
Office of Emergency Management  
375 Printers Parkway  
Colorado Springs, CO 80910  
Office: 719-385-5957; FAX: 719-385-7387  
24 Hr Contact : 719-444-7623  
Email: bwaters@springsgov.com

Colorado State University  
Chief of Police/EM Coordinator  
Colorado State University Police Dept.  
600 South Dr.  
Fort Collins, CO 80523  
Office: 970-491-1159; FAX: 970-491-2294  
24 Hr Contact: 970-491-6425

Commerce City  
Chuck Baker  
Commerce City Police Dept.  
5291 E. 60th Ave.  
Commerce City, CO 80222  
Office: 303-289-3656; FAX: 303-289-3732  
24 Hr Contact: 303-287-2844

Delta  
Chief of Police  
P.O. Box 19 / 4th & Main  
Delta, CO 81416  
Office: 970-874-7566; FAX: 970-874-7676  
24 Hr Contact: 970-874-7676  
970-874-2015

Durango  
Chief Al Bell  
Emergency Operations Coordinator  
990 East Second Avenue.  
Durango, CO 81301  
Office: 970-375-4701; FAX: 970-375-4718  
24 Hr Contact: 970-385-2900  
Email: BellAW@ci.durango.co.us

Englewood  
Don Schoenbein  
Englewood Fire Department  
3615 S. Elati  
Englewood, CO 80110  
Office: 303-762-2477; FAX: 303-781-8163  
24 Hr Contact: 303-761-7410  
303-761-7490

Erie  
Chief Stephen P. Hasler  
City of Erie Police Dept.
P.O. Box 510  
Erie, CO 80516  
Office: 303-926-2800; FAX: 303-926-2805

Estes Park  
Lieutenant Gregg Filsinger  
Estes Park Police Dept.  
P.O. Box 1287

Federal Heights  
Chief Andrew Marsh  
Federal Heights Fire Dept.  
2400 W. 90th Ave  
Federal Heights, CO 80260

Fort Collins  
Mike Gavin  
Director, Office of Emergency Management  
City of Fort Collins  
3400 W. Vine, Bldg B.

Fort Lupton  
Sgt. David Dunkle  
Director of Public Safety  
Fort Lupton Police Dept.  
130 S. McKinley, Box 213

Glendale  
Fire Chief Arthur Johansen  
Emergency Prep. Coordinator  
Glendale Fire Dept.  
950 S. Birch St.

Golden  
Chief John Bales  
Golden Fire Dept.  
911 Tenth St.  
Golden, CO 80401

Greeley  
Dale Lyman  
Emergency Management Battalion Chief  
Union Colony Fire Rescue  
919 7th Street

Greenwood Village  
Dave Fisher  
Emergency Preparedness Manager  
6060 S. Quebec St.

Lakewood  
Brian Nielsen  
Environment Manager  
City of Lakewood  
480 S. Allison Pkwy.
Littleton
Stanley G. Bush, Director
Littleton Emergency Planning Dept.
2415 E. Maplewood Ave.
Littleton, CO 80121-2817
Office: 303-794-2304; FAX: 303-794-0342
24 Hr Contact: 303-794-1551
Email: sbush@aol.com

Longmont
Stephen P. Trunck, Manager
Longmont Emergency Services
225 Kimbark St.
Longmont, CO 80501
Office: 303-651-8422; FAX: 303-651-8651
24 Hr Contact: 303-651-8501
Email: steve.trunck@ci.longmont.co.us

Louisville
Thomas N. Bock, Director
Louisville Police Dept.
749 Main St.
Louisville, CO 80027
Office: 303-666-6565 x203; FAX: 303-666-8476
24 Hr Contact: 303-666-4444
Email: bockt@ci.louisville.co.us

Loveland
Chief Mark Miller
Loveland Fire Dept.
410 E. 5th St.
Loveland, CO 80537
Office: 970-962-2470; FAX: 970-962-2912
24 Hr Contact: 970-962-2481

Northglenn
Russ VanHouten
11701 Community Center Dr.
Northglenn, CO 80233-1099
Office: 303-450-8878; FAX: 303-450-8896
24 Hr Contact: 303-450-8892
Email: rvanhouten@northglenn.org

Sheridan
Chief Ray Sample
Sheridan Police Dept.
4101 S. Federal Blvd.
Sheridan, CO 80110-5399
Office: 303-762-2234 x240; FAX: 303-762-2238
24 Hr Contact: 303-762-2211
Email: rsample@ci.sheridan.co.us

Thornton
Gene Putman, P.E., P.T.O.E.
Thornton Emergency Management
9500 Civic Center Drive
Thornton, Co 80229
Office: 303-538-7333; Fax: 303-538-7562
24 Hr Contact 303-266-9963
Email: gene.putman@cityofthornton.net

University of Colorado - Boulder
Tom Carney
Emergency Management Coordinator
Campus Box 375
Boulder, CO 80309-0375
Office: 303-492-5162; FAX: 303-492-2854
Email: Thomas.Carney@Colorado.EDU
*See City of Boulder for more info.

Westminster
Mike Reddy
Westminster Emergency Management
4800 W. 92nd Ave.
Westminster, CO 80031
Office: 303-430-2400 x4550; FAX: 303-429-6433
24 Hr Contact: 303-430-4400
Email: mreddy@ci.westminster.co.us

Wheat Ridge
Judy Sullivan / Michelle Stodden
Wheat Ridge Police Dept.
7500 W. 29th Ave.
Wheat Ridge, CO 80215-6797
Off: 303-235-2400 x 2359, FAX: 303-235-2949
24 Hr Contact: 303-237-2220
Appendix C
Red Cross Pandemic Influenza Response Planning Information*

*Based on current guidance from the National Red Cross and Local Chapter FAQ’s

Planning assumptions for the Red Cross Pan flu response:
1. The number one priority for the Red Cross is volunteer safety.
2. There will be limited or no assistance from other chapters.
3. Travel may be restricted and local Red Cross Chapters will need their volunteers to serve in their home areas.
4. There may be a limited response from spontaneous volunteers due to the far-reaching nature of the illness.

In response to pandemic influenza, the Red Cross will not:
1. Establish congregate care (shelter) facilities where such facilities would enhance the chance of disease transmission.
2. Manage or assume responsibility for medical facilities, special needs shelters and temporary infirmaries or overflow facilities for hospitals.
3. Purchase vaccines or medical supplies for use by public authorities.
4. Violate worker safety guidelines as established by OSHA.
5. Replace lost wages or assume responsibilities for needs arising from economic disruption.
6. Assume responsibilities for patient tracking.
7. Perform death notifications.

In response to pandemic influenza, the Red Cross will:
• Be involved with planning and exercises with local partners, including municipal state, federal and local health departments, the Strategic National Stockpile, the Federal Emergency Management Agency, the Governor’s Expert Emergency Epidemic Response Committee (GEEER), etc.
• Assist with consistent public education messaging by activating their call center and using 1-800 GET INFO.
• Provide technical advice to agencies setting up temporary infirmaries for mass care.
• Provide a limited supply of cots and blankets in support of mass care.
• Assist with the distribution of needed bulk items, e.g. masks, food boxes, and other items.
• Assist with training and education by making available preparedness information, brochures on food and water and family emergency plans, assist ReadyColorado with training, providing training on family care giving.
• Work with partners, e.g., food banks, VOAD, to assist with providing food supplies to people in isolation or quarantine.
The flu and the common cold are both respiratory illnesses but they are caused by different viruses.

**Onset of Symptoms.** A cold typically develops gradually. Initial symptoms of runny nose, sneezing, and chills are followed by coughing, headache, sore throat, loss of appetite, and nasal discharge. The flu most often hits abruptly, with a sudden high fever, dry cough, and headache.

**Symptoms.** The flu tends to make the whole body ache, whereas the common cold usually affects the nose and throat only. The following table compares the symptoms of a cold vs. flu.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Cold</th>
<th>Flu</th>
</tr>
</thead>
<tbody>
<tr>
<td>fever</td>
<td>rare, low (less than 101F)</td>
<td>characteristic, high (102-104F); lasts 3-4 days</td>
</tr>
<tr>
<td>headache</td>
<td>rare</td>
<td>prominent</td>
</tr>
<tr>
<td>general aches, pains</td>
<td>slight</td>
<td>usual; often severe</td>
</tr>
<tr>
<td>fatigue, weakness</td>
<td>quite mild</td>
<td>can last up to 2-3 weeks</td>
</tr>
<tr>
<td>extreme exhaustion</td>
<td>never</td>
<td>early and prominent</td>
</tr>
<tr>
<td>stuffy nose</td>
<td>common</td>
<td>sometimes</td>
</tr>
<tr>
<td>sneezing</td>
<td>usual</td>
<td>sometimes</td>
</tr>
<tr>
<td>sore throat</td>
<td>common</td>
<td>sometimes</td>
</tr>
<tr>
<td>chest discomfort, hacking cough</td>
<td>mild to moderate</td>
<td>common; can become severe cough</td>
</tr>
</tbody>
</table>

*Adapted from the FDA Consumer magazine (October 1996), Food and Drug Administration*