

For more information about this topic, call the Risk Management Division:

- 1-801-240-4049
 - 1-800-453-3860, ext. 2-4049 (toll free in the United States and Canada)
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This fact sheet provides information on how families can prepare themselves for a possible flu pandemic.

Background

A severe pandemic (defined as a world-wide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe which has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any “unknown” source, such as the H5N1 virus.

General Precautions

Observe general precautions including hand washing, avoiding contact with possibly infected poultry, or consuming undercooked poultry or poultry products.

If one of your family or household members becomes ill, they should be isolated in a separate room. If several members are sick, they can be isolated in the same room. When caring for those who are ill, you will need some appropriate personal protective equipment (PPE) including the following:

- Disposable vinyl, nitrile, or latex gloves or other reusable gloves that can be disinfected
- Protective clothing (long sleeved coveralls with a waterproof apron) or a disposable surgical gown
- Disposable shoe covers or those that can be disinfected
- Safety goggles or face shield
- Wear at least the minimum level of respiratory protection which is a surgical mask or preferably an N95 respirator
- These items must be removed in the proper sequence to avoid contaminating yourself (see *Pandemic Planning - Health Care Worker Preparedness* fact sheet for more details).

Disinfection

Cups, glasses, dishes, all eating utensils, thermometers, etc., must be disinfected after use by the ill person. The eating utensils can be disinfected either by use of a dishwasher or dishwater with 1.5 tsp. of household bleach to one gallon (3.8 liters) of water. Remember that handling these items while they are still contaminated will lead to possible infection. Therefore, wear gloves while handling potentially contaminated items.

Surfaces in the room of the infected persons should be cleaned with a solution of bleach water as noted above or with Lysol® or Clorox® spray, wipes or liquid. Pay particular attention to faucets, doorknobs, telephones, refrigerator, oven, and toilet flush handles. This should be done

whenever there is contact by an infected person or otherwise 2-3 times a day. Linens and clothing need to be washed in warm water with detergent and preferably dried in a dryer. Remember if you are not careful in your personal protective wear and hygiene measures, you may carry infected material on your skin or clothing which may contaminate others or yourself. Designate a specific garbage bag for infected, disposable materials.

Isolation

If you develop flu-like symptoms, *stay home and isolated* from your household except to seek medical care. Remain at home for 7-10 days or until you are well and can no longer spread the infection. Seek medical care if you have signs of pneumonia or severe lung infection (difficulty breathing, wheezing, or a persistent fever over 102° F or 38.9° C)

If there are other cases of avian flu in your neighborhood, it would be safest to keep your children in your yard or home away from others who may be infected. Plan in advance what will need to be done or who you can call upon if you are either alone, ill and incapacitated, or if the adults in the household become ill and incapacitated. Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.

Schools and day care facilities will likely close. Plan your child care in advance and how you might function by working at home for example, or how college-age family members can assist in younger child care during the time their colleges and universities are closed. Having multiple younger children from several households in one home for day care is less than optimal due to the high risk of spreading the disease.

Limit your exposure to public places which may include a grocery trip only once a week rather than every few days. In addition to the recommended food and water storage items, keep a supply of your prescription medications, nonprescription drugs, and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, vitamins, rubbing alcohol, thermometers, garbage bags and cleaning supplies. Keep your car filled with gas and have cash on hand in case banks are closed or services limited. Use the over-the-counter medications as directed on the container.

Maintain social distancing (see *Pandemic Planning - Social Distancing* fact sheet for more details) and stay at least 6 feet away from others at all times particularly in public. Avoid handshaking and other forms of contact. Use proper cough and sneeze etiquette even if you are not ill (see *Pandemic Planning – Personal Hygiene* fact sheet for more details). Be sure to teach your children the proper hand washing and cough/sneeze behaviors as well. If you are ill, you need to be isolated from those who are healthy even in your own household.

References:

www.cdc.gov: Interim Pre-pandemic planning guidance: including individual planning, workplace planning, community planning, school planning, healthcare planning, community strategy for pandemic influenza mitigation
www.osha.gov: Guidance on Preparing Workplaces for an Influenza Pandemic
www.who.org: Avian Flu: Fact Sheet, pandemic preparedness plan, guidelines, WHO pandemic influenza draft protocol for rapid response and containment
www.epa.gov: Ground water and drinking water: emergency disinfection of drinking water
LDS Church, *Basic Self Reliance*, p.76, 1989

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This fact sheet provides information on how to use good personal hygiene practices as a means to help control or minimize the spread of a possible pandemic virus among individuals and in the community.

Background

A severe pandemic (defined as a worldwide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East and Europe that has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any unknown source, such as the H5N1 virus.

Personal Hygiene Basics

The best way to stop the spread of germs that cause the flu or other illnesses that can be spread from one person to another is to wash hands often and control the discharges associated with coughing and sneezing. According to the U.S. Centers for Disease Control Prevention, "*Hand washing is the single most important means of preventing the spread of infection.*"

Hands should be washed with clean water and soap:

- When they are dirty
- After using the restroom
- Before and after preparing meals
- After cutting and handling uncooked meat
- Before eating
- After cleaning the house
- After caring for someone who is ill
- After changing an infant's diaper
- After cleaning up blood or body fluids
- After handling soiled bed linens and clothes
- Before and after flossing teeth
- After you cough or sneeze in them



How to Wash Hands



1. Adjust water to a comfortable level and wet hands. Dispense a small amount of soap into the palms of the hands creating lather.
2. Using as much friction as needed, thoroughly clean all surfaces of hands including between the fingers.
3. Pay attention to the nails and nail beds by rubbing the nails of one hand across the palm of the other, creating enough friction to clean underneath the nails. Hands should be washed for at least 20 seconds. Use of a memory aid, such as singing a song or reciting a familiar poem, may assist individuals in washing for an adequate period of time.
4. Rinse the hands under running water, being sure to hold the hands in a downward position.
5. Use paper towels to thoroughly dry the hands.
6. Using the same paper towel, turn off the water supply and open the door.

Other Hand Cleaning Options

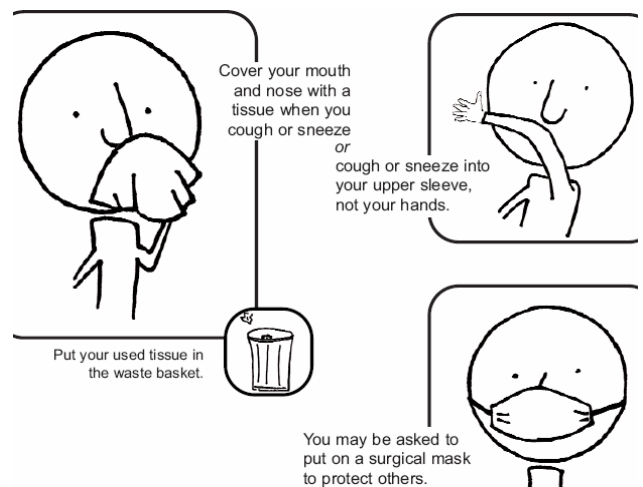
Alcohol-based hand cleaners can also be used to clean hands. Put a small amount on the hands and rub all hand surfaces until the hands are dry.

If commercially prepared alcohol-based hand cleaners are not available or are too costly, an alcohol-based hand cleaner can be made by mixing 70% alcohol and glycerin (about 2% by volume of glycerin). The glycerin keeps the hands soft because the alcohol can dry them out. Hands will periodically need to be washed with soap and water because the hands will have a glycerin buildup with time.

Cough and Sneeze Etiquette

The following measures to contain respiratory secretions are recommended for all individuals with signs and symptoms of a respiratory infection.

- Cover the nose and mouth when coughing or sneezing.
- Provide and encourage use of tissues to contain respiratory secretions. If possible, dispose of tissues immediately in the nearest no-touch waste receptacle after use.
- If tissues are unavailable, cough or sneeze into a handkerchief or your arm or shoulder, not your hands.
- If you cough or sneeze in your hands, be sure to wash or clean them with an alcohol-based hand cleaner as soon as possible to stop the spread of germs.



References

- Principles and Methods of Sterilization in Health Sciences, Perkins, John J., M.S., LLD, FRSH.
2nd ed. Springfield, IL: Charles C. Thomas, 1996.
- World Health Organization. Practical Guidelines for Infection Control in Healthcare Facilities.
Regional Office for Western Pacific Region, Manila: WHO, 2004.
- www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm
- www.cdc.gov/flu/protect/pdf/covercough_hcp8-5x11.pdf
- www.labs.net/schools/marion/mms/health.htm
- www.osha.gov/Publications/OSHA3327pandemic.pdf

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This fact sheet provides information on how individuals, such as employees and missionaries, can protect themselves from an infectious disease during a pandemic through the use of personal protective equipment (PPE).

Background

A severe pandemic (defined as a world-wide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe which has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any “unknown” source, such as the H5N1 virus.

General

Where contact with infected persons is not expected, individuals interacting with the general population should use basic PPE during a pandemic to prevent sprays of potentially infected liquid droplets (from talking, coughing, or sneezing) from contacting their nose or mouth. For caretakers in contact with possible avian influenza patients, refer to the *Pandemic Planning—Health Care Worker Preparedness* fact sheet or the *Pandemic Planning – Home and Family Preparedness* fact sheet.

Surgical Masks and Respirators

Surgical masks provide protection from liquid droplets and are generally recommended. Respirators, such as N95 respirators, may be considered if there is an expectation of close contact with persons who have symptomatic influenza infection. Follow the surgical mask or respirator manufacturer’s fitting instructions to ensure proper fit and usage.

Eye Protection

Eye protection generally is not required to prevent influenza infection.

Hand Washing

Individuals should wash hands frequently with soap and water or a hand sanitizer to prevent hands from transferring potentially infectious material from surfaces to their mouths or noses.

Gloves

While individuals may choose to wear gloves, the exposure of concern is touching the mouth and nose with a contaminated hand and not exposure to the virus through broken skin (for example, cuts or scrapes). While the use of gloves may make individuals more aware of potential hand

contamination, there is no difference between intentional or unintentional touching of the mouth, nose, or eyes with either a contaminated glove or a contaminated hand.

Proper Removal of PPE

Remove PPE in the proper sequence to avoid contamination.

1. Because gloves are considered the most contaminated piece of PPE, remove them first. Do not touch the outside of gloves with your bare hands during removal. If you contaminate your hands during the removal process, wash them before continuing.
2. Surgical masks or N95 respirators may be contaminated because droplets may have landed on them or you may have touched your face by mistake while wearing your PPE. Touch only the ties or straps at the back of your head. Slowly remove the straps, taking care that the respirator does not contaminate your bare skin or clothing.
3. Dispose of used PPE in a plastic lined trash can or a plastic bag. Seal the plastic bag for later disposal. Hold the bag by the outside and avoid any rush of air as you seal it.
4. Always wash your hands thoroughly with soap and water or a hand sanitizer immediately after PPE removal.

Summary

When selecting PPE, consider factors such as function, fit, long-term comfort, ability to be decontaminated, disposal, and cost. Sometimes, when a piece of PPE will have to be used repeatedly for a long period of time, a more expensive and durable piece of PPE may be less expensive in the long run than a disposable piece of PPE. During a pandemic, recommendations for PPE use may change, depending on information on PPE effectiveness in preventing the spread of influenza.

Reference

www.osha.gov/Publications/OSHA3327pandemic.pdf Guidance on Preparing Workplaces for an Influenza Pandemic. OSHA 3327-02N 2007.

This fact sheet provides information on how to prepare for Sheltering in place in the event of a possible flu pandemic.

Background

A severe pandemic (defined as a worldwide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe that has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any unknown source, such as the H5N1 virus.

Depending on the severity of a pandemic, commercial airlines might drastically curtail or even cease operations. Travel restrictions could also impede people from returning to their home country or fleeing to other countries. For these reasons, it may make more sense to shelter in place (stay home and practice social distancing to avoid infection) for an appropriate period of time.

Preparation

Families should prepare at least two weeks of emergency supplies (food, water, medicines, and so forth) in order to shelter in place during an influenza pandemic. Consult “Preparation for Home Emergencies and Natural Disasters” under Provident Living at www.lds.org.

Living Internationally

Those living in areas with undependable infrastructure for water, electricity, and food availability should evaluate their situation and prepare emergency supplies accordingly (nonperishable food, potable water, medicines, and so forth.) for the possibility of sheltering in place for at least 2 and up to 12 weeks. Water purification techniques for drinking water such as boiling, filtering, and adding chlorine to locally available rainwater, lakes, rivers, and wells may replace the need to store large quantities of water.

Boiling water will kill most types of disease-causing organisms and is the most reliable method of purifying water easily. Bring the water to a rolling boil for two minutes. Add one minute for each 5,000 feet of elevation.

The addition of chlorine bleach to water is also a viable alternative. For clear water, add 8 drops per gallon (3.8 liters) and let stand for at least 15 minutes. If the water is cloudy, add twice as much bleach. Bleach used for water purification should be unscented and have a concentration of sodium hypochlorite of at least 4%.

What Can You Do on a Daily Basis?

Cover your cough. Wash your hands regularly with soap and water for at least 20 seconds to kill viruses and bacteria or apply a hand sanitizer with a minimum of 60% alcohol content when soap and water are not available (see Pandemic Planning—Personal Hygiene fact sheet for more details). Stay home if you are sick. Get a vaccination against seasonal flu.

Travel

Those living in or traveling to countries with human or animal cases of H5N1 virus should consider the potential risks. Keep informed of the latest medical guidance and practical information and plan accordingly. Consult www.travel.state.gov for the latest tips on international travel.

Sheltering of Missionaries

Missionaries serving in the local areas may require assistance if required to shelter in place for more than several days. Please contact the local mission president for instructions and assistance if requested to provide these services.

References

Information for this fact sheet was taken from the following the U.S. Department of State web site, www.travel.state.gov/travel/tips/health/health_3096.html.

Detailed information about suggested preparations, as well as planning checklists is available from:

- www.pandemicflu.gov.
- www.who.int/en/.
- www.cdc.gov.

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This fact sheet provides information on how to utilize social distancing as a means to help control or minimize the spread of a possible pandemic virus among individuals and in the community.

Background

A severe pandemic (defined as a worldwide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe that has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, an avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any unknown source, such as the H5N1 virus.

What Is Social Distancing?

Social distancing (SD), self-shielding, voluntary isolation, and reverse quarantine are all methods that attempt to limit close physical proximity between infected and healthy individuals. They provide individuals with some measure of personal control over their own exposure to a potential pandemic. SD can be instituted voluntarily by individuals or through actions taken by local, state, or government officials such as closure of schools, discontinuance of public transportation, and restrictions on large gatherings or public venues. During the 1918 pandemic, leaders of the Church were supportive of SD efforts to curtail public meetings and other social functions sponsored by the Church. Some examples of their efforts included the following:

- Postponing the April 1919 sessions of general conference until June
- Holding a nonpublic funeral for President Joseph F. Smith
- Suspending local Church meetings in areas affected by the pandemic
- Holding special fasts to help ease the pandemic
- Publishing articles in Saturday's edition of the *Deseret Evening News* to help fill the spiritual void left when Church meetings were suspended

Why Social Distancing?

Influenza is thought to be primarily spread through large respiratory droplets (droplet transmission) that directly contact the nose, mouth, or eyes. These droplets are produced when infected people cough, sneeze, or talk, sending the infectious droplets and very small sprays (aerosols) into the air and into contact with other people. Large droplets can only travel a limited distance; therefore, people should limit close contact (within 6 feet) with others when possible. To a lesser degree, human influenza is spread by touching objects contaminated with influenza viruses and then transferring the infected material from the hands to the nose, mouth, or eyes.

What Are the Benefits of Social Distancing?

Adults may decrease their risk of infection by practicing SD and minimizing their nonessential social contacts and exposure to highly populated environments. Low-cost and sustainable SD practices can be adopted by individuals within their community (for example, going to the grocery store once a week rather than every other day, avoiding large public gatherings) and at their workplace (for example, spacing people farther apart in the workplace, telecommuting when feasible, substituting teleconferences for meetings) for the duration of a community outbreak.

Children are a significant factor in the transmission of influenza for many reasons. Compared with adults, children usually shed more influenza virus and for a longer period. They also are less skilled in handling their secretions and are in close proximity with many other children for most of the day at school. Schools, in particular, clearly serve as a means to transmit seasonal community influenza epidemics. Infected children and parents are also thought to play a major role in introducing and transmitting influenza virus within their households.

Therefore, given the disproportionate contribution of children in spreading disease and viruses, targeting their social networks both within and outside of schools would be expected to help disrupt influenza spread. Given that children and teens are together at school for a significant portion of the day, dismissal of students from school could effectively disrupt a significant portion of influenza transmission within these age groups.

Mathematical modeling also suggests a reduction of overall disease especially when schools are closed early in the outbreak. Parents may determine to keep their children at home, therefore providing a form of voluntary SD. During this period, parents would be encouraged to consider child care arrangements that do not result in large gatherings of children outside the school setting.

What Are the Basics of Social Distancing

Social distancing may be a viable alternative for the general public to avoid the pandemic influenza infection until a vaccine becomes available. Below, in order of potential effectiveness, are various aspects of SD suggestions:

1. Limit exposure to other people within 6 feet.
2. Minimize exposure to enclosed spaces containing crowds, such as movie theatres, grocery stores, gas stations, schools, malls, and so forth.
3. Use personal protective equipment, such as N95 masks (see Pandemic Planning—Personal Protective Equipment fact sheet), if you must get within 6 feet of anyone outside your immediate family (or other individuals where you have intimate knowledge of their health conditions) or if you must go into an enclosed space containing crowds. It should be noted that there is limited information on the use of surgical masks for the control of a pandemic in settings where there is no identified source of infection.
4. Wash hands after touching any item that may have been touched by others or use disposable gloves (see Pandemic Planning—Personal Hygiene fact sheet for more details). Contaminated surfaces can transmit influenza for 24 hours.

Potential Impacts of Social Distancing

Closure of office buildings, stores, schools, and public transportation systems may be feasible community containment measures during a pandemic and are considered forms of forced SD. All of these have significant impact on the community and workforce. Careful consideration should be focused on their potential effectiveness and how to maintain critical supplies and infrastructure while limiting community interaction. For example, when public transportation is cancelled, other modes of transportation must be provided for emergency medical services and

medical evaluation. The mandatory closure of public venues will have a direct and significant effect on worship services, as well as proselytizing efforts by missionaries.

References

www.osha.gov/Publications/influenza_pandemic.html

www.pandemicflu.gov/plan/community/commitigation.html

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This fact sheet provides information on how to perform clean-up measures in areas that may be contaminated by an infectious disease, such as avian influenza or severe acute respiratory syndrome (SARS). The procedures outlined will help control or minimize the spread of possible infectious diseases among individuals and in the community.

Background

A severe pandemic (defined as a worldwide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe that has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any unknown source, such as the H5N1 virus.

Personal Protective Equipment

Employees cleaning buildings in areas where contamination from an infectious disease is a concern should take the following precautions:

- Personnel doing general cleaning where infectious disease is a concern should wear disposable vinyl gloves and safety glasses but need not use protective clothing, masks, or respirators.
- Personnel who clean where a person suspected of having an infectious disease has been should wear disposable vinyl gloves; eye protection (goggles or face shield); and a NIOSH-certified, disposable N95 respirator (mask).

Hygiene and Housekeeping Practices

Supervisors of cleaning personnel should be aware of the symptoms of the suspected infectious disease that they are cleaning for. Any employee who cleans a building that has been occupied by a person suspected of having an infectious disease should notify their supervisor if he or she develops similar symptoms within 10 days of cleaning the building. The main source of airborne infectious particles will have been removed once a person suspected of having an infectious disease, such as SARS or avian influenza, leaves the building. It is unknown to what extent an infectious disease can be transmitted through contact with residual infectious materials on surfaces.

Personnel cleaning potentially contaminated facilities should frequently wash their hands with soap and water (see *Pandemic Planning—Personal Personal Hygiene* fact sheet). Cleaning personnel should also follow these additional recommendations:

- Remove and discard gloves if they become soiled or damaged while cleaning.
- Discard gloves after you have finished cleaning (do not wash or reuse gloves worn during cleaning).
- If soap and water are not available, use an alcohol-based hand wash to clean hands.
- Frequently touched surfaces in the building (such as armrests, doorknobs, and latches) and bathroom surfaces should be wiped down with an EPA-registered low- or intermediate-level chemical household germicide and allowed to air dry in accordance with the manufacturer's instructions.

The CDC advises that there are no disinfectant products currently registered by the EPA for SARS or avian influenza. The CDC recommends the use of EPA-registered chemical germicides that provide low- or intermediate-level disinfection during general use against infectious agents because these products are known to inactivate viruses with physical and biochemical properties similar to other viral agents. Disposable N95 respirators should be used in the context of a complete respiratory protection program. Refer to the Respiratory Protection Program in the *Church Safety, Health, and Environmental Manual*, U.S. or international version. A respiratory protection program includes medical determinations; fit-testing; training; and properly maintaining, cleaning, inspecting, and storing respirators. Order respirators through local safety suppliers. If respirators are not available locally, submit a purchase requisition to the area purchasing manager.

References

- “Information Regarding Severe Acute Respiratory Syndrome (SARS).” Occupational Safety and Health Administration (OSHA). www.osha-slc.gov/dep/sars/index.html.
- “Interim Recommendations for Cleaning and Disinfection of the SARS Patient Environment.” CDC. www.cdc.gov/ncidod/sars/cleaningpatientenviro.htm.
- “Interim Domestic Guidance on the Use of Respirators to Prevent Transmission of SARS.” CDC. www.cdc.gov/ncidod/sars/respirators.htm.
- “Interim Guidelines about Severe Acute Respiratory Syndrome (SARS) for Persons in the General Workplace Environment.” CDC. www.cdc.gov/ncidod/sars/workplaceguidelines.htm.
- “Guidance on Preparing Workplaces for an Influenza Pandemic,” OSHA 3327-02N 2007 www.osha.gov/Publications/influenza_pandemic.html.

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This fact sheet provides information on how health-care workers, such as missionary area medical advisors, physicians, nurses, respiratory therapists, etc. who may staff clinics and hospitals can prepare themselves for a possible flu pandemic.

Background

A severe pandemic (defined as a world-wide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe which has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any “unknown” source, such as the H5N1 virus.

When in contact with possible avian influenza patients, health-care providers should follow standard respiratory droplet precautions. At present, the transmission of flu virus is considered to be via droplet. If avian flu becomes easily transmissible via human-to-human contact, it will likely be via droplet or possible aerosol transmission.

General precautions

Wash hands carefully for 20 seconds before and after all patient contact, or contact with surfaces potentially contaminated with respiratory secretions.

Droplet Precautions:

- Use personal protective equipment (PPE) such as a surgical mask or preferably an N95 respirator, gloves and gown for all patient contact. Following established guidelines for the proper use of and the removal sequence for PPE is very important.
- Use disposable equipment if available, or other equipment such as blood pressure cuffs, thermometers, etc. that can be disinfected before use on another patient.
- Wear safety goggles or a face shield within 3 feet of the patient.

If there is concern of aerosol transmission, the patient should be placed in a negative-pressure, airborne infection isolation room. If such a room is unavailable, portable HEPA filters should be used if available. Workers should use at least a disposable N95 respirator when in the isolation room or other room containing the patient.

To help prevent transmission between patients:

- Group infected patients in the same room if private rooms are not available.
- Minimize transportation of patients outside the room.

- Limit the number of people caring for patients.
- Limit the numbers of visitors to the patient.

Proper Use and Removal of PPE

Proper surgical mask or respirator use and removal include the following:

- Prior to putting on PPE, wash hands thoroughly with soap and water or use a hand sanitizer to reduce the possibility of inadvertent contact between contaminated hands and mucous membranes.
- Follow the surgical mask or respirator manufacturer's fitting instructions to ensure proper fit and usage.
- If worn in the presence of infectious persons, a surgical mask or respirator may become contaminated with infectious material; therefore, avoid touching the outside of the device to help prevent contamination of hands.
- Once worn in the presence of a patient with an infectious disease, the surgical mask or disposable N95 respirator should be removed and appropriately discarded.

Remove PPE in the proper sequence to avoid contamination.

1. Because the gloves are considered the most contaminated piece of PPE, remove them first. Do not touch the outside of gloves with your bare hands during removal. If you contaminate your hands during the removal process, wash them before continuing.
2. The eye protection should be removed next because it is more cumbersome and might interfere with removal of the mask. Remember that it may be contaminated because droplets may have landed on it or you may have touched it by mistake while wearing your PPE. Remove eye protection by touching only the ear pieces or head band at the side of your head to lift away from your face. Discard it or deposit it into the soap and water container for washing later.
3. The gown is next; remember that the front is contaminated. Untie the back, then slip your hands under the gown at the neck and shoulders and peel it away from your body. Grasp cuffs one at a time by slipping your fingers underneath and then pull each arm out of the gown. Holding the gown at the shoulders, fold the outside contaminated part so that it is inside and then discard the gown. Then wash your hands or use hand sanitizer.
4. Surgical masks or N95 respirators may be contaminated because droplets may have landed on them or you may have touched your face by mistake while wearing your PPE. Touch only the ties or straps at the back of your head. Slowly remove the straps, taking care that the respirator does not contaminate your bare skin or clothing.
5. Dispose of used PPE in a plastic lined trash can or a plastic bag. Seal the plastic bag for later disposal. Hold the bag by the outside and avoid any rush of air as you seal it.
6. Always wash your hands thoroughly with soap and water or a hand sanitizer immediately after PPE removal.

References

www.cdc.gov: Interim pre-pandemic planning guidance, including individual planning, workplace planning, community planning, school planning, health-care planning, and community strategy for pandemic influenza mitigation

www.osha.gov: Guidance on Preparing Workplaces for an Influenza Pandemic

www.who.org: Avian Flu fact sheet, pandemic preparedness plan, guidelines, WHO pandemic influenza draft protocol for rapid response and containment

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This fact sheet provides information on how employers can prepare for a possible flu pandemic.

Background

A severe pandemic (defined as a worldwide epidemic) in a vulnerable population, such as the 1918 flu pandemic, represents a worst-case scenario for pandemic planning and preparedness. Communities, individuals, employers, schools, and other organizations are being asked to plan for the use of interventions that will help limit the spread of disease. At this time, there is concern because of continued spread of a highly pathogenic avian influenza (H5N1) virus among animals in Asia, Africa, the Middle East, and Europe that has the potential to significantly threaten human health. If a virus such as H5N1 mutates and spreads easily from one person to another, avian influenza may break out globally. While there are no reports of *sustained* human-to-human transmission of avian influenza, governments and international health agencies are preparing for a possible pandemic. A pandemic can originate from any unknown source, such as the H5N1 virus.

Employers face several challenges in preparing their businesses for a possible pandemic:

- Section 5(a)(1) of the U.S. Occupational Safety and Health Act of 1970 requires that every working man and woman must be provided with a safe and healthful workplace.
- Absenteeism will increase due to illness of employees or their families.
- Changes in patterns of commerce may affect income and costs.
- Normal supply and delivery schedules will likely be interrupted.

Employers and employees should use this planning guidance to help identify levels of risk levels in workplace settings and apply appropriate control measures that include good hygiene, cough etiquette, social distancing, use of personal protective equipment (PPE), and staying home from work when ill. Other documents on these subjects are available through Risk Management. Employee risks may range from very high to lower risk depending on the nature of the business enterprise and the employee responsibilities. The OSHA document referenced at the end of this fact sheet can provide additional information.

Overview

The best way to reduce the risk of becoming infected with influenza during a pandemic is to avoid crowded settings and other situations that increase the risk of exposure to someone who may be infected. If it is necessary to be in a crowded setting, the time spent in a crowd should be as short as possible. It is the employer's obligation to consider and possibly provide additional methods of protection if employees and customers are required to be in close proximity to one another.

Incorporate Pandemic Planning into the Organization's Business Continuity Plan

- Develop a disaster plan that includes pandemic preparedness (see www.pandemicflu.gov/plan/businesschecklist.html).
- Make sure that your business continuity plan protects and supports your employees, customers, and the general public. Informed employees who feel safe at work are less likely to be absent.
- Prepare and plan for operations with a reduced workforce.
- Identify business-essential positions and the skills required to sustain essential business functions and operations. Be sure to cross-train three or more employees so they can function appropriately in these positions.
- Plan for downsizing services but also anticipate any scenario, that may require a surge in your services if they are critical in a pandemic situation.
- Organize and identify a central team of people or focal point to serve as a communication source so that your employees and customers can have accurate information during the crisis.
- Work with your suppliers to ensure that you can continue to operate and provide services.

Evaluate Personnel Risks and Concerns

- Identify possible exposure and health risks to employees. Will employees potentially be in contact with people with influenza? Are employees expected to have much contact with the general public or each other?
- Minimize exposure to fellow employees or the public. For example, can more employees work from home? This may require enhancement of technology and communications equipment.
- Develop a sick leave policy that does not penalize sick employees, thereby encouraging employees who have influenza-related symptoms (such as, fever, headache, cough, sore throat, runny or stuffy nose, muscle aches, or upset stomach) to stay home so that they do not infect other employees. Recognize that employees with ill family members may need to stay home to care for them.
- Recognize that, in the course of normal daily life, all employees will have nonoccupational risk factors at home and in community settings that should be reduced to the extent possible. Some employees will also have individual risk factors that should be considered by employers as they plan how the organization will respond to a potential pandemic (for example, immuno-compromised individuals and pregnant women).
- Assist employees in managing additional stressors related to the pandemic. These are likely to include distress related to personal or family illness; life disruption; grief related to loss of family, friends, or coworkers; loss of routine support systems; and other similar challenges. Assuring timely and accurate communication will also be important throughout the duration of the pandemic in decreasing fear or worry. Employers should provide opportunities for support, counseling, and mental health assessment and referral should these be necessary. If present, Employee Assistance Programs can offer training and provide resources and other guidance on mental health and resiliency before and during a pandemic.

- Work with DMBA and Risk Management as well as state and local health agencies to provide information to employees and customers about medical care in the event of a pandemic.

Employee Hygiene

- Develop policies and practices that distance employees from each other, customers, and the public (see the Pandemic Planning—Social Distancing fact sheet for more information). Consider practices to minimize face-to-face contact between employees such as e-mail, Web sites, and teleconferences. Policies and practices that allow employees to work from home or to stagger their work shifts may be important as absenteeism rises.
- Consider stockpiling items such as soap, tissue, hand sanitizer, cleaning supplies, and recommended PPE. When stockpiling items, be aware of each product's shelf life and storage conditions (avoid areas that are damp or have temperature extremes) and incorporate product rotation (consume oldest supplies first) into your stockpile management program.
- Encourage employees to wash their hands frequently with soap and water or with hand sanitizer if there is no soap or water available. Also, encourage your employees to avoid touching their noses, mouths, and eyes. Encourage employees to cover their coughs and sneezes with a tissue or to cough and sneeze into their upper sleeves if tissues are not available. All employees should wash their hands or use a hand sanitizer after they cough, sneeze, or blow their noses. See the Pandemic Planning—Personal Hygiene fact sheet for more information.
- Provide employees and customers in the workplace with easy access to infection control supplies, such as soap, hand sanitizers, PPE (such as gloves or surgical masks), tissues, and office cleaning supplies.
- Provide training, education and informational material about business-essential job functions and employee health and safety, including proper hygiene practices and the use of any PPE to be used in the workplace. Be sure that informational material is available in a usable format for individuals with sensory disabilities or limited English proficiency. Refer to fact sheets on hygiene, home preparedness, social distancing, and PPE for more information.
- Periodically disinfect work surfaces, telephones, computer equipment, and other frequently touched surfaces and office equipment.
- Discourage employees from using other employees' phones, desks, offices, or other work tools and equipment.
- Encourage employees to obtain a seasonal influenza vaccine (this helps to prevent illness from seasonal influenza strains that may continue to circulate).

Protecting Employees and Customers

- Educate and train employees in proper hand hygiene, cough etiquette, and social distancing techniques. Resource documents are available through Risk Management. Understand and develop work practice and engineering controls that can provide additional protection to employees and customers, such as drive-through service windows; clear plastic sneeze barriers; ventilation; and the proper selection, use, and disposal of PPE.

- Evaluate the types of measures that may be used to protect employees and customers (listed from most effective to least effective): engineering controls, administrative controls, work practices, and PPE.
- Employees should avoid close contact with their coworkers and customers (maintain a separation of at least 6 feet). They should avoid shaking hands and always wash their hands after contact with others. Even when employees wear gloves, they should wash their hands upon removal of the gloves in case their hands become contaminated during the removal process.
- Minimize situations where groups of people are crowded together, such as in a meeting. Use e-mail, phones, and text messages to communicate with each other. When meetings are necessary, avoid close contact by keeping a separation of at least 6 feet, where possible, and assure that there is proper ventilation in the meeting room.
- Reduce or eliminate unnecessary social interactions. This can be very effective in controlling the spread of infectious diseases. Reconsider all situations that permit or require employees, customers, and visitors (including family members) to enter the workplace.
- Promote healthy lifestyles, including good nutrition and exercise. A person's overall health impacts their body's immune system and can affect their ability to fight off or recover from an infectious disease.

Concerns When Living, Working, or Traveling Internationally

Employees living abroad and international business travelers should note that other geographic areas have different influenza seasons and will likely be affected by a pandemic at different times. The U.S. Department of State emphasizes that, in the event of a pandemic, its ability to assist Americans traveling and residing abroad may be severely limited by restrictions on local and international movement imposed for public health reasons, either by foreign governments and/or the United States. Furthermore, American citizens should take note that the Department of State cannot provide Americans traveling or living abroad with medications or supplies even in the event of a pandemic. These conditions will be similar to those found in most other countries. Each individual should contact their own country's Department of State for information specific to their country's policies and regulations.

The U.S. Department of State has asked its embassies and consulates to consider preparedness measures that take into consideration that travel into or out of a country may not be possible, safe, or medically advisable during a pandemic. Guidance on how private citizens can prepare is available in the Church's Pandemic Planning—Sheltering in Place fact sheet. Embassy stocks will typically not be made available to private citizens abroad. It is also likely that governments will respond to a pandemic by imposing public health measures that restrict domestic and international movement, further limiting the U.S. government's ability to assist Americans in these countries. As it is possible that these measures may be implemented very quickly, it is important that employers and employees plan appropriately.

Before any international travel:

- Consult the U.S. Government pandemic website at www.pandemicflu.gov or www.travel.state.gov/travel/travel or the World Health Organization's (WHO) Web site at www.who.int/csr/don/en/index.html to review countries with significant outbreaks of infectious disease.
- Find out how and where to get medical care in the country where you are traveling.
- Check your health insurance plan or get additional insurance that covers medical evacuation in case you become ill.
- Be sure your vaccinations are up-to-date at least 6 weeks before you travel.
- Assemble or purchase a travel health kit containing first aid and medical supplies. Be sure to include a thermometer and alcohol-based hand rub.

During travel:

- Avoid all direct contact with poultry or places where live poultry is raised or kept.
- Avoid handling surfaces contaminated with poultry feces or respiratory secretions.
- One of the most important preventive measures is careful and frequent hand washing. Please refer to the Pandemic Planning—Personal Hygiene fact sheet.
- It is important to understand that you might become infected in a country where the health care systems may be inadequate to cope with a serious infectious process.
- If you have an illness that requires prompt medical attention, a consular officer can assist you in locating medical services and communicating with your family and friends.

After your return:

- Monitor your health for 10 days.
- If you become ill with fever and develop a cough, difficulty breathing, or any illnesses during this period of time, consult a health care provider. Advise them of your symptoms, where you have traveled, and if you have had any contact with poultry or with a known case of any infectious disease.

References

www.osha.gov/Publications/influenza_pandemic.html

www.pandemicflu.gov

www.cdc.gov/niosh

www.cdc.gov

www.fda.gov/cdrh/ppp/fluoutbreaks.html