



Interim Guidance on Infection Control Measures for 2009 H1N1 Influenza in Healthcare Settings, Including Protection of Healthcare Personnel

Updated November 20, 2009

This guidance replaces the previous version dated Sept. 15, 2009. The guidance is written primarily for 2009 H1N1 influenza. However co-circulation of seasonal influenza viruses is likely to increase in the months to come. Therefore, this guidance should be applied to all suspected and confirmed influenza cases.

Revisions from earlier guidance includes:

- Criteria for identification of suspected influenza patients
- Recommended time away from work for health care personnel
- Changes in isolation precautions based on tasks and anticipated exposures
- Expansion of information on the hierarchy of controls for reducing influenza transmission in healthcare settings
- Recommendations for respiratory protection when there is a shortage of supplies

The principal difference between this guidance and guidance issued by the Centers for Disease Control and Prevention, updated October 14, 2009.

(http://www.cdc.gov/h1n1flu/guidelines_infection_control.htm) is the use of surgical masks as personal protective equipment for health care personnel in close contact with suspected or confirmed 2009 H1N1 influenza. See pages 5 and 8 for surgical mask use and N95 respirator use.

Definition of healthcare personnel

For the purposes of this guidance, healthcare personnel are defined as all persons whose occupational activities involve contact with patients or contaminated material in a healthcare, home healthcare, or clinical laboratory setting. Healthcare personnel are engaged in a range of occupations, many of which include patient contact even though they do not involve direct provision of patient care, such as dietary and housekeeping services. This guidance applies to healthcare personnel working in the following settings: acute care hospitals, nursing homes, skilled nursing facilities, physician's offices, urgent care centers, outpatient clinics, and home healthcare agencies. It also includes those working in clinical settings within non-healthcare institutions, such as school nurses or personnel staffing clinics in correctional facilities. The term "healthcare personnel" includes not only employees of the organization or agency, but also contractors, clinicians, volunteers, students, trainees, clergy, and others who may come in contact with patients.

Definition of suspect influenza

A febrile respiratory illness (fever defined as 38 degrees Celsius, 100.4 degrees Fahrenheit) plus a sore throat and/or cough and/or other respiratory symptoms.

GENERAL RECOMMENDATIONS

Review Pandemic Plans for the 2009-2010 Fall/Winter Influenza Season

Facilities should review and, if not already in place, develop written pandemic influenza plans anticipating widespread transmission of 2009 H1N1 influenza in communities.

Use a Hierarchy of Controls to Prevent Influenza Transmission in Healthcare Settings

Facilities should use a hierarchy of controls approach to prevent exposure of healthcare personnel and patients and prevent influenza transmission within healthcare settings. The hierarchy of controls to protect workers from occupational injury or illness places preventive interventions in groups that are ranked according to their likely effectiveness in reducing or removing the source of exposure. To apply the hierarchy of controls to prevention of influenza transmission, facilities should take the following steps, in order of preference:

- 1) *Elimination of potential exposures*: Eliminating the potential source of exposure ranks highest in the hierarchy of controls. Examples of interventions in this category include: taking steps to minimize outpatient visits for patients with mild influenza-like illness who do not have risk factors for complications, postponing elective visits by patients with suspected or confirmed influenza until they are no longer infectious, and denying entry to visitors who are sick.
- 2) *Engineering controls*: Engineering controls rank second in the hierarchy of controls. They are particularly effective because they reduce or eliminate exposures at the source and many can be implemented without placing primary responsibility of implementation on individual employees. In addition, these controls can protect patients as well as personnel. Examples of engineering controls include installing partitions in triage areas and other public spaces, to reduce exposures by shielding personnel and other patients; and using closed suctioning systems for airways suction in intubated patients.
- 3) *Administrative controls*: Administrative controls are required work practices and policies that prevent exposures. As a group, they rank third in the hierarchy of controls because their effectiveness is dependent on consistent implementation by management and employees. Examples of administrative controls include promoting and providing vaccination; enforcing exclusion of ill healthcare personnel, implementing respiratory hygiene/cough etiquette strategies; and setting up triage stations and separate areas for patients who visit emergency departments with influenza-like illness, managing patient flow, and assigning dedicated staff to minimize the number of healthcare personnel exposed to those with suspected or confirmed influenza. **Of note, although it is ranked lower on the list as an administrative control, vaccination is one of the most important interventions for preventing transmission of influenza to healthcare personnel.**
- 4) *Personal protective equipment (PPE)*: PPE ranks lowest in the hierarchy of controls. It is a last line of defense for individuals against hazards that cannot otherwise be eliminated or controlled. While providing personnel with appropriate PPE and education in its use is important, effectiveness of PPE is dependent on a number of

factors. PPE is effective only if used throughout potential exposure periods. PPE will not be effective if adherence is incomplete or when exposures to infectious patients or ill co-workers are unrecognized. In addition, PPE must be used and maintained properly, and must function properly, to be effective.

Careful attention to elimination of potential exposures, engineering controls, and administrative controls will reduce the need to rely on PPE, including respirators. This is an especially important consideration during the current year, when shortages of respirators have already been reported by many healthcare facilities.

SPECIFIC RECOMMENDATIONS

Promote and administer the 2009 H1N1 influenza and seasonal influenza vaccines

- Facilities and organizations providing healthcare services are strongly encouraged to provide both vaccines to healthcare personnel and to promote their use aggressively.

Healthcare and emergency medical services personnel are among the priority groups recommended to receive the 2009 H1N1 influenza vaccine. To improve adherence, vaccination should be offered to healthcare personnel free of charge and during working hours. Vaccination campaigns with incentives such as lotteries with prizes should be considered. Healthcare facilities should require personnel who refuse vaccination to complete a declination form.

It is not anticipated that the seasonal influenza vaccine will provide protection against the 2009 H1N1 influenza virus. However, it is anticipated that seasonal influenza viruses will also be present in the U.S. during the 2009-2010 influenza season. Influenza vaccination is effective against these seasonal viruses and should continue to be provided to healthcare personnel and given to unvaccinated patients.

Enforce respiratory hygiene and cough etiquette

In addition to limiting numbers of ill people in the facility (e.g., by access control), respiratory hygiene and cough etiquette infection control measures should be incorporated into infection control practices as part of Standard Precautions to prevent the transmission of all respiratory infections including 2009 H1N1 influenza. This form of source control should be implemented by everyone in healthcare settings - patients, visitors, and staff alike. Respiratory hygiene and cough etiquette procedures should continue to be followed for the entire duration of stay.

Establish facility access control measures and triage procedures

- Establish non-punitive policies that encourage or require ill health care personnel workers to stay home. This should include contractors as well as staff.
- Post signage at entry points instructing patients and visitors about hospital policies, including the need to notify staff immediately if they have signs and symptoms of influenza.

- Establish mechanisms to identify patients with symptoms of respiratory illness at any point of entry to the facility. Provisions should be made for symptomatic patients to cover their nose and mouth with tissues when coughing or sneezing, or put on facemasks¹ for source control, if tolerated, and for their prompt isolation and assessment.
- Establish triage procedures and engineering controls (e.g., partitions) that separate ill and well patients and limit the need for PPE use by staff.
- Consider limiting points of entry to the facility.

Manage visitor access and movement within the facility

Establish procedures for managing visitors to include:

- Limiting visitors for patients in isolation for influenza to persons who are necessary for the patient's emotional well-being and care. Visitors who have been in contact with the patient before and during hospitalization are a possible source of influenza for other patients, visitors, and staff.
- Scheduling and controlling visits to allow for:
 - Screening for symptoms of acute respiratory illness before entering the hospital.
 - Instruction, before entering the patient's room, on hand hygiene, limiting surfaces touched, and use of PPE according to current facility policy while in the patient's room.
 - Visitors should not be present during aerosol-generating procedures.
 - Visitors should be instructed to limit their movement within the facility.

Establish policies and procedures for patient placement and transport

Any patient with respiratory illness consistent with influenza should promptly be asked to wear a facemask for source control, if tolerated, or cover their nose and mouth with tissues when coughing or sneezing, and placed directly in an individual room with the door kept closed, where medically appropriate. The precautions required for entry into patient rooms should be posted on the door. Once placed in rooms, patients with suspected or confirmed 2009 H1N1 influenza should be encouraged to practice respiratory hygiene and cough etiquette when they are coughing or sneezing throughout their duration of stay.

- When a single patient room is not available, consultation with infection control personnel is recommended to assess the risks associated with other patient placement options (e.g., cohorting, keeping the patient with an existing roommate).

¹ A facemask is a loose-fitting, disposable device that creates a physical barrier between the mouth and nose of the wearer and potential contaminants in the immediate environment. Facemasks may be labeled as surgical, laser, isolation, dental or medical procedure masks. They may come with or without a face shield: <http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/MedicalToolsandSupplies/PersonalProtectiveEquipment/ucm055977.htm>. Facemasks may be worn by those with suspected or confirmed influenza to prevent them from exposing others to respiratory secretions; or may be worn by healthcare personnel to protect them from respiratory splashes and sprays from suspected or confirmed influenza patients.

Follow current facility procedures for transport and movement of patients under isolation precautions, including:

- Communicating information about patients with suspected, probable or confirmed influenza to appropriate personnel before transferring them to other departments in the facility (e.g., radiology, laboratory) and to other facilities.
- Limiting patient transport and movement of patients outside of the room to medically necessary purposes and minimizing waiting times and delays associated with transport and procedures conducted outside the patient's room.
- Providing influenza patients with facemasks to wear for source control, as tolerated, and tissues to contain secretions when outside of their room.
- Encouraging patients who are able to perform hand hygiene to do so frequently and to follow respiratory hygiene and cough etiquette practices.
- Providing portable x-ray equipment in cohort areas to reduce the need for patient transport.

Limit the number of healthcare personnel entering the isolation room

- Healthcare personnel entering the room of a patient in isolation should be limited to those truly necessary for performing patient care activities.

Apply isolation precautions

The following isolation precautions are recommended for healthcare personnel who are in close contact with patients with suspected or confirmed 2009 H1N1 influenza. **For the purposes of this document, close contact is defined as working within 6 feet of the patient or entering into a small enclosed airspace shared with the patient (e.g., average patient room):**

- Standard Precautions - For all patient care, use nonsterile gloves for any contact with potentially infectious material, followed by hand hygiene immediately after glove removal; use gowns along with eye protection for any activity that might generate splashes of respiratory secretions or other infectious material
- Respiratory Protection – Recommendation: ADHS recommends the use of a surgical mask for health care personnel who are in close contact with patients with suspected or confirmed 2009 H1N1 influenza or other febrile respiratory illness. ADHS will continue to revisit its guidance as new information becomes available, within this season if necessary.
- Healthcare facilities should provide fit tested N95 respirators (or better) to any healthcare worker who requests them when resources are available to do so.

CDC recognizes that some facilities are currently experiencing shortages of respiratory protection equipment and that further shortages are anticipated. Although the exact total supply in the public and private sectors is not known, a large gap between supply and

demand is predicted. In the face of shortages, appropriate selection and use of respiratory protection is critical.²

The state of Arizona is currently experiencing a shortage of N-95 respirators. The following recommendations apply during such a shortage. ADHS will continue to revisit its guidance as new information becomes available.

Supply considerations: A key strategy is to use source control, engineering, and administrative measures to reduce the numbers of workers who come in contact with patients who have influenza-like illness in order to reduce the consumption of respiratory protection equipment. For example, combining the use of triage procedures and use of partitions or other engineering controls might reduce exposures and the need for PPE. Other strategies could include taking steps to either reduce consumption of disposable N95 filtering facepiece respirators or extend their use. Some facilities that are experienced in their use may also be able to use alternative PPE for certain applications including more protective filtering facepiece respirators, reusable elastomeric tight-fitting respirators, and reusable powered air-purifying respirators (PAPRs). For facilities that are able to use alternatives such as elastomeric respirators or PAPRs, processes must be in place to ensure that they are used properly and are reliably decontaminated.

Special care should be taken to ensure that respirators are available for situations where respiratory protection is most important, such as performance of aerosol-generating procedures on patients with suspected or confirmed 2009 H1N1 influenza or provision of care to patients with other infections for which respiratory protection is strongly indicated (e.g., tuberculosis).

Prioritized respirator use: Where a shortage of respirators exists despite reasonable efforts to obtain and maintain a sufficient supply for anticipated needs, in particular for very high exposure risk situations such as some aerosol-generating procedures (listed below), a facility should consider shifting to a **prioritized respirator use mode**. In this mode, respirator use is prioritized to ensure availability for healthcare personnel at most risk from 2009 H1N1 influenza exposure. Even under conditions of prioritized use, personnel attending

² Respirator use should be in the context of a complete respiratory protection program in accordance with Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.134, Respiratory Protection:
https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=12716. Information on respiratory protection programs and fit test procedures can be accessed at <http://www.osha.gov/SLTC/etools/respiratory>. Staff should be medically cleared, fit-tested, and trained for respirator use, including: proper fit-testing and use of respirators, safe removal and disposal, and medical contraindications to respirator use. Additional information on N95 respirators and other types of respirators certified by NIOSH may be found at: <http://www.cdc.gov/niosh/npptl/topics/respirators/factsheets/respfact.html> and at <http://www.fda.gov/cdrh/ppe/masksrespirators.html>. A complete listing of NIOSH-approved disposable particulate respirators (filtering facepieces) by manufacturers/suppliers and model numbers may be found at http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/.

aerosol-generating procedures on patients with suspected or confirmed 2009 H1N1 influenza should always use respiratory protection at least as protective as fitted N95 respirators. Prioritization should be adapted to local conditions and should consider intensity and duration of exposure, personal health risk factors for complications of infection, and vaccination status. When in prioritized respirator use mode, respirator use may be temporarily discontinued for employees at lower risk of exposure to 2009 H1N1 influenza or lower risk of complicated infection. . Contingency crisis planning is critical to efficient implementation of prioritized use during supply shortages. In making decisions about prioritization, facilities should consider needs for managing patients with diseases other than influenza that require respiratory protection (e.g. tuberculosis) and also considerations related to the timetable for obtaining more respirators. To assure that respirators are likely to be available for the most important uses, facilities should maintain a reserve sufficient to meet the estimated needs for performing aerosol-generating procedures and for managing patients with diseases other than influenza that require respiratory protection until supplies are expected to be replenished.

Facemasks for healthcare personnel who are not provided a respirator due to the implementation of prioritized respirator use: **If a facility is in prioritized respirator use mode and unable to provide respirators to healthcare personnel who provide care to suspected and confirmed 2009 H1N1 influenza cases, the facility should provide those personnel with facemasks.** Facemasks that have been cleared for marketing by the U.S. Food and Drug Administration have been tested for their ability to resist blood and body fluids, and generally provide a physical barrier to droplets that are expelled directly at the user. Although they do not filter small particles from the air and they allow leakage around the mask, they are a barrier to splashes, droplet sprays, and autoinoculation of influenza virus from the hands to the nose and mouth. Thus, they should be chosen over no protection. Routine chemoprophylaxis is not recommended for personnel wearing facemasks during the care of patients with suspected or confirmed 2009 H1N1 influenza.

Aerosol-generating procedures

Some procedures performed on patients are more likely to generate higher concentrations of respiratory aerosols than coughing, sneezing, talking, or breathing, presenting healthcare personnel with an increased risk of exposure to infectious agents present in the aerosol. ADHS views the following procedures as being very high exposure risk aerosol-generating procedures for which special precautions should be used:

- Bronchoscopy
- Sputum induction
- Endotracheal intubation and extubation
- Open suctioning of airways
- Cardiopulmonary resuscitation
- Autopsies

Although some have suggested that administration of nebulized medications (due to risk of inducing cough), acquisition of nasopharyngeal swabs/samples, and use of high-flow oxygen might create infectious aerosols of concern, less is known about the magnitude or potential for exposure. Clinical judgement should be used to determine the need for fit tested N95 respirators as PPE for health care personnel performing nebulized medication treatments. The availability of N95 respirators should be taken into account in this decision.

A combination of measures should be used to reduce exposures from high-risk aerosol-generating procedures, including:

- Only perform these procedures on patients with suspected or confirmed influenza if they are medically necessary and cannot be postponed.
- Limit the number of healthcare personnel present during the procedure to only those essential for patient care and support.
- Conduct the procedures in an airborne infection isolation room (AIIR) **when feasible**.
- Portable HEPA filtration units may be used to further reduce the concentration of contaminants in the air. Some of these units can connect to local exhaust ventilation systems (e.g. hoods, booths, tents) or have inlet designs that allow close placement to the patient in order to assist with source control; however, these units do not eliminate the need for respiratory protection for individuals entering the room because they may not entrain all of the room air. Information on air flow/air entrainment performance should be evaluated for such devices.
- **Healthcare personnel should adhere to standard precautions http://www.cdc.gov/ncidod/dhqp/gl_isolation_standard.html, and wear respiratory protection equivalent to a fitted N95 filtering facepiece respirator or higher level of protection during aerosol-generating procedures.**
- Unprotected healthcare personnel should not be allowed in a room where an aerosol-generating procedure has been conducted until sufficient time has elapsed to remove potentially infectious particles. Environmental surface cleaning also is necessary to ensure that environmental contamination does not lead to infection transmission.

Hand Hygiene

- Healthcare personnel should perform hand hygiene frequently, including before and after all patient contact, contact with respiratory secretions, and before putting on and upon removal of PPE. Soap and water or alcohol-based hand sanitizers should be used.

Duration of Isolation Precautions for Patients

The recommended duration of isolation precautions for hospitalized patients is longer than that recommended for other populations because duration of virus shedding is likely to be longer than for outpatients with milder illness. Isolation precautions for patients who have influenza symptoms should be continued for the 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer, while a patient is in a healthcare facility. Shedding of influenza viruses generally diminishes over the course of 7 days, with transmission apparently correlating with fever.

Given this, if isolation resources (e.g. private rooms) become limited, these resources should be prioritized for patients who are earlier in the course of illness. Clinical judgment may be used for patients with only cough as a symptom, since cough after influenza infection may be prolonged and may not be an indicator of viral shedding. Because some patients with influenza may not have fever but may be shedding influenza virus, patients with any respiratory symptoms should follow hand and respiratory hygiene recommendations, and healthcare personnel working with such patients should continue to follow standard precautions. Patients should be discharged from medical care when clinically appropriate, not based on the period of isolation.

In some cases, facilities may choose to continue isolation precautions for longer periods such as in the case of young children or severely immunocompromised patients, who may shed influenza virus for longer periods of time and who might be shedding antiviral resistant virus. Clinical judgment should be used to determine the need for continued isolation precautions for such patients. Communications regarding the patient's diagnosis with post hospital care providers (e.g. Home-healthcare agencies, long-term care facilities) as well as transporting agencies is essential.

Monitor and Manage Ill Healthcare Personnel

In most cases, decisions about work restrictions and assignments for personnel with respiratory illness should be guided by clinical signs and symptoms rather than by laboratory testing for influenza. Personnel should be provided with information about risk factors for complications of influenza, so **those at higher risk know to promptly seek medical attention and be evaluated for early treatment if they develop symptoms of influenza**. All personnel should be provided with specific instructions to follow in the event of respiratory illness with rapid progression, particularly when experiencing shortness of breath. Anyone with the following emergency warning signs needs urgent medical attention and should seek medical care promptly:

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting
- Flu-like symptoms improve but then return with fever and worse cough

Healthcare personnel who develop a fever and respiratory symptoms should be:

- Instructed not to report to work, or if at work, to promptly notify their supervisor and infection control personnel/occupational health.
- **Excluded from work for at least 24 hours after they no longer have a fever, without the use of fever-reducing medicines such as acetaminophen and ibuprofen.**
- If returning to work in areas where severely immunocompromised patients are provided care, considered for temporary reassignment or exclusion from work for 7 days from symptom onset or until the resolution of symptoms, whichever is longer. Clinical judgment should be used for personnel with only cough as a symptom, since cough after influenza infection may be prolonged and may not be

an indicator of viral shedding. Healthcare personnel recovering from a respiratory illness may return to work with immunocompromised patients sooner if absence of 2009 H1N1 viral RNA in respiratory secretions is documented by real-time reverse transcriptase-polymerase chain reaction (rRT-PCR).

- Reminded of the importance of practicing frequent hand hygiene (especially before and after each patient contact) and respiratory hygiene and cough etiquette after returning to work following an acute respiratory illness.

Healthcare personnel who develop acute respiratory symptoms without fever should be:

- Allowed to continue or return to work unless assigned in areas where severely immunocompromised patients are provided care. In this case they should be considered for temporary reassignment or exclusion from work for 7 days from symptom onset or until the resolution of symptoms, whichever is longer. Clinical judgment should be used for personnel with only cough as a symptom, since cough after influenza infection may be prolonged and may not be an indicator of viral shedding. Healthcare personnel recovering from a respiratory illness may return to work with immunocompromised patients sooner if absence of 2009 H1N1 viral RNA in respiratory secretions is documented by rRT-PCR. Additional information on diagnostic testing for 2009 H1N1 influenza infection can be found at <http://www.cdc.gov/h1n1flu>
- Reminded of the importance of practicing frequent hand hygiene (especially before and after each patient contact) and respiratory hygiene and cough etiquette after returning to work following an acute respiratory illness.

Facilities and organizations providing healthcare services should:

- Ensure that sick leave policies for healthcare personnel (e.g., staff and contract personnel) are flexible and consistent with public health guidance and that employees are aware of the policies.
- Ensure that sick employees are able to stay home without fear of losing their jobs.
- *Consider offering alternative work environments as an accommodation for employees at higher risk for complications of 2009 H1N1 influenza during periods of increased influenza activity or if influenza severity increases.*
- **Not require a doctor's note for workers with influenza to validate their illness or return to work.**

Antiviral Treatment and Chemoprophylaxis of Healthcare Personnel

Please refer to the ADHS web site for the most current recommendations on the use of antiviral agents for treatment and chemoprophylaxis:

<http://www.azdhs.gov/flu/h1n1/providers.htm> All healthcare personnel concerned about symptoms of influenza should seek advice from their medical provider promptly.

Training and education of healthcare personnel

All healthcare personnel should receive training on influenza prevention and risks for complications of influenza. The training should include information on risk assessment; isolation precautions; vaccination protocols; use of engineering and administrative controls and personal protective equipment; protection during high-risk aerosol-

generating procedures; signs, symptoms, and complications of influenza; and to promptly seek medical attention for any concerns about symptoms of influenza.

Healthcare Personnel at Higher Risk for Complications of Influenza

Personnel at higher risk for complications from influenza infection include pregnant women, persons 65 years old and older, and persons with chronic diseases such as asthma, heart disease, diabetes, diseases that suppress the immune system, and certain other chronic medical conditions.

Vaccination and early treatment with antiviral medications are very important for healthcare personnel at higher risk for influenza complications because they can prevent hospitalizations and deaths. Healthcare personnel at higher risk for complications should check with their healthcare provider if they become ill so that they can receive early treatment.

Environmental Infection Control

Routine cleaning and disinfection strategies used during influenza seasons can be applied to the environmental management of 2009 H1N1 influenza. Management of laundry, utensils and medical waste should also be performed in accordance with procedures followed for seasonal influenza. More information can be found at: http://www.cdc.gov/ncidod/dhqp/gl_environinfection.html.

Table 1. Prioritization of Respiratory Protection During Respirator Shortages for Healthcare Personnel Not Participating in Aerosol-Generating Procedures^a

(Numbers 1 through 4 indicate relative priorities for respiratory protection, with 1 the highest priority and 4 the lowest priority)

Exposure Scenario	Not Vaccinated^b	Vaccinated^c
<i>Personnel Without Risk Factors for Influenza-Related Complications^d</i>		
Routine care – frequent close exposure ^e	2	4
Routine care – infrequent close exposure ^f	3	4
<i>Personnel With Risk Factors for Influenza-Related Complications^g</i>		
Routine care – frequent close exposure	1	3
Routine care – infrequent close exposure	2	4

a – This table is provided as an example of prioritization that considers intensity and duration of exposure, personal health risk factors for complications of infection, and vaccination status. Advance planning is critical to efficient implementation of prioritized use during supply shortages.

b – Not vaccinated: not vaccinated or less than 14 days after vaccination. Consider including those with immunosuppressive conditions or treatment with immunosuppressive therapies anticipated to impair vaccine response in this group.

c – Vaccinated: 14 or more days after vaccination.

d - See section on “Healthcare Personnel at Higher Risk for Complications of Influenza” for list of personal risk factors for influenza-related complications; also see: <http://www.cdc.gov/h1n1flu/recommendations.htm>.

e – Personnel frequently in close contact with patients with suspected or confirmed 2009 H1N1 influenza. For the purposes of this document, close contact is defined as working within 6 feet of the patient or entering into a small enclosed airspace shared with the patient (e.g., average patient room). This generally includes personnel working in settings where cases of suspected or confirmed 2009 H1N1 influenza are routinely seen (e.g. emergency departments and primary care in environments such as clinics in outpatient settings, employee healthcare facilities, and correctional facilities).

f – Personnel infrequently in close contact with patients with suspected or confirmed 2009 H1N1 influenza. This generally includes personnel working in settings where cases of suspected or confirmed 2009 H1N1 influenza are not routinely seen and/or having job duties not involving close contact.

g– Gathering of personal information for the purposes of pandemic planning and response must be done in a fashion that is compliant with all applicable rules and regulations, including the Americans with Disabilities Act (ADA). A short technical assistance document is available at the following web address: