H1N1 Flu (Swine Flu)  
Frequently Asked Questions  
(Updated May 8, 2009)

These responses are compiled from information from the CDC Web site, daily CDC briefings, and NACCHO Web site concerning the novel H1N1 influenza A (H1N1) outbreak. This information is based on current information and is subject to change based on ongoing surveillance and continuous risk assessment.

For the most up-to-date detailed information, updates and changes, please visit the CDC web site dedicated to “What’s New” at www.cdc.gov/h1n1flu/whatsnew.htm.

*This information is not an official CDC communication, nor should it replace any direction you may receive from your state health department or choices you may make based on circumstances in your own community.*

Topics below include:

- School Closures
- Antivirals
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School Closures

Please review the Update on School (K – 12) and Childcare Facilities: Interim CDC Guidance in Response to Human Infections with the Novel Influenza A (H1N1) Virus at www.cdc.gov/h1n1flu/K12_dismissal.htm for detailed information, updates and changes.

Q. Is there a threshold for school closings? Are there criteria for school closures?

At this time, CDC recommends the primary means to reduce spread of influenza in schools is to focus on early identification of ill students and staff, staying home when ill, and good cough and hand hygiene etiquette. Decisions about school closure should be at the discretion of local authorities based on local considerations, including public concern and the impact of school absenteeism and staffing shortages.

- School closure is not advised for a suspected or confirmed case of novel influenza A (H1N1) and, in general, is not advised unless there is a magnitude of faculty or student absenteeism that interferes with the school’s ability to function.
- Schools that were closed based on previous interim CDC guidance related to this outbreak may reopen.
- Students, faculty or staff with influenza-like illness (fever with a cough or sore throat) should stay home and not attend school or go into the community except to seek medical care for at least 7 days even if symptoms resolve sooner. The guidance on school
dismissals is permissive and should allow you flexibility to apply in your local jurisdiction as appropriate.

Q. How should we apply school closure guidance to colleges, universities and other similar institutions?

CDC is not currently recommending that colleges, universities, or post-secondary educational institutions cancel or dismiss classes or other large gatherings. If confirmed cases of novel influenza A (H1N1) virus infection or a large number of cases of influenza like illness (ILI) (i.e. fever with either cough or sore throat) occur among students, faculty, or staff or in the community, university officials should consult with state and local health officials regarding an appropriate response.

Because the spread of novel influenza A (H1N1) within a health professions school may pose special concerns, school administrators are strongly encouraged to contact their state and local public health authorities if they suspect that cases of ILI are present on their campuses.

Please review Interim CDC Guidance for Colleges, Universities, and Post-secondary Educational Institutions in Response to Human Infections with Novel Influenza A (H1N1) Virus at [www.cdc.gov/h1n1flu/guidance/guidelines_colleges.htm](http://www.cdc.gov/h1n1flu/guidance/guidelines_colleges.htm) and Community Strategy for Pandemic Influenza Mitigation at [www.pandemicflu.gov/plan/community/commitigation.html](http://www.pandemicflu.gov/plan/community/commitigation.html) for detailed information, updates and changes.

Q. The CDC case definition is based on acute febrile respiratory illness—fever plus conditions. With respect to school guidance, if a student presents with fever and nasal congestion, does that meet the definition of a suspect case of novel H1N1 influenza?

Please work with the current case definition. CDC is working hard to revise and stabilize the case definitions for confirmed, probable, and suspect cases. The case definitions should settle down in the next couple of days.

Q. Current guidance states the specific duration of isolation as 7 days or 24 hours after resolution of symptoms, whichever is longer. There may be prolonged cough. Should it be changed to 24 hours without fever?

The CDC guidance remains the same. Symptoms of prolonged cough may occur and we will have more information on this soon from data in ongoing multiple sites about the shedding of virus in children. Students with symptoms past 7 days should not return to school.

**Antivirals**

Please review the Interim Guidance on Antiviral Recommendations for Patients with Novel Influenza A (H1N1) Virus Infection and Their Close Contacts at [http://www.cdc.gov/h1n1flu/recommendations.htm](http://www.cdc.gov/h1n1flu/recommendations.htm) for specific populations, detailed information, updates and changes.

Q. Who should be treated with antivirals?

Treatment is recommended for:

1. All hospitalized patients with confirmed, probable or suspected novel influenza (H1N1).
2. Patients who are at higher risk for seasonal influenza complications (see above).
If a patient is not in a high-risk group or is not hospitalized, healthcare providers should use clinical judgment to guide treatment decisions, and when evaluating children should be aware that the risk for severe complications from seasonal influenza among children younger than 5 years old is highest among children younger than 2 years old.

Q. What are the recommendations for using antivirals for prophylaxis?
Antiviral chemoprophylaxis with either oseltamivir or zanamivir is recommended for the following individuals:

1. Household close contacts who are at high-risk for complications of influenza (e.g., persons with certain chronic medical conditions, persons 65 or older, children younger than 5 years old, and pregnant women) of a confirmed or probable case.
2. Health care workers or public health workers who were not using appropriate personal protective equipment during close contact with an ill confirmed, probable, or suspect case of swine-origin influenza A (H1N1) virus infection during the case’s infectious period. See guidelines on personal protective equipment.

Antiviral chemoprophylaxis with either oseltamivir or zanamivir can be considered for the following:

1. Close contacts of cases (confirmed, probable, or suspected) who are at high-risk for complications of influenza
2. Health care personnel, public health workers, or first responders who have had a recognized, unprotected close contact exposure to a person with novel (H1N1) influenza virus infection (confirmed, probable, or suspected) during that person’s infectious period.

Information on appropriate personal protective equipment is available at: www.cdc.gov/h1n1flu/guidelines_infection_control.htm and might be updated frequently as additional information on transmission becomes available.

Please review the CDC H1N1 Flu Guidance Page at http://www.cdc.gov/h1n1flu/guidance/ for additional information on prophylaxis of pregnant women, young children and other specific audiences.

Vaccines

Q. Does the current 2008-2009 seasonal influenza vaccine protect against H1N1 Flu (Swine Flu)?
It is not anticipated that the seasonal influenza vaccine will provide protection against the swine flu H1N1 viruses. However, in some parts of the country, seasonal influenza viruses are still circulating. Influenza vaccination is effective against these seasonal viruses and should continue to be given to unvaccinated patients in areas where seasonal influenza cases are still occurring.
**Q. Is there a vaccine for H1N1 Flu (Swine Flu)?**

*Development of a vaccine for H1N1 (Swine Flu) is underway. CDC has not yet made a decision about producing this vaccine for the 2009-2010 influenza season. However, CDC is actively taking the steps needed to make this decision.*


**Migrant Workers**

*Please visit the NACCHO Infectious Disease Web page for information and resources from local health departments and more including materials in Spanish: [http://www.naccho.org/topics/HPDP/infectious/](http://www.naccho.org/topics/HPDP/infectious/).*

**Q. Is there guidance specifically for working with migrant worker community in response to swine flu?**

*Guidance will be available soon and will be based on risk factors because this is not a group that by virtue of their work is any more likely to be ill. Language and materials that support avoidance of stigmatization is in progress. There are two Public Service Announcements (PSAs) available at [www.cdc.gov/h1n1flu/psa/](http://www.cdc.gov/h1n1flu/psa/) (also available in Spanish by selecting View Page in Spanish on the right menu).*

**Age-Specific**

*Please review Interim Guidance for Clinicians on the Prevention and Treatment of Swine-Origin Influenza Virus Infection in Young Children at [www.cdc.gov/h1n1flu/childrentreatment.htm](http://www.cdc.gov/h1n1flu/childrentreatment.htm) for detailed information, updates, and changes.*

Little is currently known about how this new S-OIV circulating in people may affect children. However, we know from seasonal influenza and past pandemics that young children, especially those younger than 5 years of age and children who have high risk medical conditions, are at increased risk of influenza-related complications.

*Illnesses caused by influenza virus infection are difficult to distinguish from illnesses caused by other respiratory pathogens based on symptoms alone. Young children are less likely to have typical influenza symptoms (e.g., fever and cough) and infants may present to medical care with fever and lethargy, and may not have cough or other respiratory symptoms or signs.*

**Q. H1N1 Flu (Swine Flu) seems to impact the younger population more than other age groups. Is this unusual?**

*This virus is spreading from person-to-person without regard for borders, race or ethnicity. However, children have been more likely to be identified as infected with this virus compared to older adults. There have been very few severe cases among people over 50 years of age, which may be an artifact in the way cases are reported by older people. Currently, serologic studies*
and ongoing investigations underway to determine if there is population immunity in older age group. This type of outbreak may have subsequent transmission that could occur in older populations. Even during seasonal flu, older population has more complications, but not more incidents. Older population tends to seek treatment later. It’s too early to take comfort in the low numbers of among older individuals.

**Q. How do prophylaxis procedures differ for infants?**
The answer depends on the type of exposure. Prophylaxis is best right after exposure. There is not a lot of data on effectiveness of use after 48 hours. There are no data on providing prophylaxis to infants less than three months.

Please review Interim Guidance for Clinicians on the Prevention and Treatment of Swine-Origin Influenza Virus Infection in Young Children at [www.cdc.gov/h1n1flu/childrentreatment.htm](http://www.cdc.gov/h1n1flu/childrentreatment.htm) for detailed information, updates, and changes.

**Q. Are there different recommendations for isolation for children as children may continue to shed virus longer?**
At the current time, CDC believes that this virus has the same properties in terms of spread as seasonal flu viruses. With seasonal flu, studies have shown that people may be contagious from one day before they develop symptoms to up to 7 days after they get sick. Children, especially younger children, might potentially be contagious for longer periods.

Please review H1N1 Flu (Swine Flu): Information for Concerned Parents and Caregivers at [www.cdc.gov/h1n1flu/parents.htm](http://www.cdc.gov/h1n1flu/parents.htm) and Interim Guidance for H1N1 Flu (Swine Flu): Taking Care of a Sick Person in Your Home at [www.cdc.gov/h1n1flu/guidance_homecare.htm](http://www.cdc.gov/h1n1flu/guidance_homecare.htm) for detailed information, updates, and changes.

**Laboratory**
Please visit [www.cdc.gov/h1n1flu/lab/](http://www.cdc.gov/h1n1flu/lab/) for detailed information, updates, and changes specifically for laboratories.

**Q. Has anyone looked for potential neutralizing antibodies in banked sera for neutralizing this strain?**
Preliminary work has been done but the clinical implications are not well understood. Previous calls referenced older adults showing some neutralizing of antibody, but this is preliminary information. Other issues to consider include population immunity and the usual phase and staging of those cases.

**Q. Are all public health laboratories testing for the novel H1N1 virus?**
CDC has developed a PCR diagnostic test kit to detect this novel H1N1 virus and has now distributed test kits to all states in the U.S. and Puerto Rico. The test kits are being shipped internationally as well. This will allow states and other countries to test for this new virus. This increase in testing capacity is likely to result in an increase in the number of reported confirmed cases in this country, which should provide a more accurate picture of the burden of disease in
the United States. Every state should have new primer-probe kits. They should be up and running for confirmation.

Q. Is CDC preparing for potential shortages in lab reagents?
The ability to create lab reagents is something we're pushing aggressively. The Influenza Coordination Unit is working on this issue and status.

Q. Which labs have been confirmed so far?
Six labs have been verified/confirmed including Florida, Nevada, California, New York, Utah, and Arizona.

Rapid Testing
Please visit [www.cdc.gov/h1n1flu/guidance/rapid_testing.htm](http://www.cdc.gov/h1n1flu/guidance/rapid_testing.htm) for detailed information, updates and changes in the Reliability and Interpretation of Rapid Influenza Test Results guidance.

Q. Can rapid tests still be performed in physician’s offices?
Yes. There was some confusion from interpretation of the guidelines on the web related to isolation of virus.

Q. What happens when a rapid flu test in a physician’s office comes back negative but patient has symptoms of influenza like illness (ILI)?
Novel H1N1 flu virus infection cannot be excluded when a patient tests negative for influenza A by rapid antigen test. If the patient has an epidemiologic link to a confirmed case (i.e. had close contact with a confirmed case), or has either traveled to or resides in a community where there are one or more confirmed novel H1N1 cases, further testing and treatment should be based upon clinical suspicion, severity of illness, and risk for complications. If there is no epidemiologic link and the patient has mild illness, further testing and treatment are not recommended. Sensitivity may vary depending on when in the course of illness the specimen is collected. Respiratory specimens for testing should be collected in the first 4-5 days of illness when viral shedding is greatest.

Factors for determining whether all or some subset of negative tests should be forwarded to the state public health lab could include known risk factors for ILI, contact with confirmed cases, and whether there are already confirmed cases in the jurisdiction.

Seasonal influenza rapid test will determine influenza A but not swine flu specifically. Specimens need to be submitted to a public health lab. As kits are in place, public health labs can do the confirmation. The performance of rapid tests was cleared through FDA for human influenza viruses, so a caveat on the performance of the test for swine flu is warranted. A negative result should not preclude swine flu infection.

Q. How do we interpret and respond to “false positives” in Rapid Flu Tests?
The reliability of rapid influenza diagnostic tests depends largely on the conditions under which they are used, and are entirely based on the experience with seasonal influenza. For detection of seasonal influenza virus infection, sensitivities of rapid diagnostic tests are approximately 50-
70% when compared with viral culture or RT-PCR, and specificities of rapid diagnostic tests for influenza are approximately 90-95%. Sensitivity and specificity of these tests for detection of the novel H1N1 flu virus are unknown.

- False-positive (and true-negative) results are more likely to occur when influenza is uncommon in the community, which is generally at the beginning and end of an outbreak.
- False-negative (and true-positive) results are more likely to occur when influenza is common in the community, which is typically at the height of an outbreak.

Test sensitivity may vary depending on when in the course of illness the specimen is collected. Respiratory specimens for testing should be collected in the first 4-5 days of illness when viral shedding is greatest.

**Q. What is the meaning of a rapid test result positive for B? A/B? or Uncertain?**

*B* does not need further testing. Exercise clinical judgment for A&B or uncertain results.

**World Health Organization (WHO)**

**Q. WHO moved to Phase 5 on the worldwide pandemic alert. What does this mean for the national and international response?**

On Wednesday, April 29, the World Health Organization raised the worldwide pandemic alert level to Phase 5. A Phase 5 alert is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short. This change, and any subsequent increase in the WHO alert phase, would not change the U.S. response to this emergency. CDC is fully engaged in implementing the national pandemic response plan. For up-to-date information, please visit:


**Travel**

Please visit H1N1 Flu Guidance [www.cdc.gov/h1n1flu/guidance/](http://www.cdc.gov/h1n1flu/guidance/) for detailed information, updates and changes to guidance including but not limited to cruise ships, flight crews, and passengers.

**Q. What actions need to be taken at ports of entry?**

During the novel H1N1 flu outbreak, extra vigilance is required to identify and report passengers with respiratory symptoms or fever. Any passenger who appears ill, or who reports not feeling well, should be observed or queried for the following signs or symptoms:

- Feeling feverish or temperature greater than 100° F (37.8° C) if measured. For children, feeling warm by parent’s report.
- Sore throat
- Cough
- Stuffy or runny nose
Any passengers observed to have or who report having two or more of these symptoms should be reported immediately to the CDC Quarantine Station in the jurisdiction of the airport where the plane is expected to land.

Q. What does a local jurisdiction do if/when a flight is coming in from Mexico and there is no Quarantine Station?
CDC asks that those ports that do have a quarantine station be considered to be part of the local response.

Q. If states with big international airports and plans include expectations to help screen passengers, should we be prepared to step in?
Border screening strategies are for purposes of containment. Since we already have disease in the U.S., containment is not a useful strategy. Because the disease is in the U.S., Mexico and other countries already, the focus is not on active screening but on enhanced passive screening and active case management. CDC is working with airline and Customs and Border Protection officers to be on alert for symptoms compatible with ILI so they can be referred to trained personnel who will examine them and ensure that they get appropriate treatment.

Strategic National Stockpile

Q. Is anyone tracking the release time of SNS from federal level to arrival at the local level?
CDC is tracking the number of states that are distributing to locals. Some states did preposition assets in local communities (local health departments, hospitals or rural health clinics). Most states will hold until there is a trigger, unavailability of commercial product, to distribute.

The tracking of assets plan does not call for detailed information about distribution within states, but CDC has been gathering a lot of information about the status and distribution. CDC will go back and look at experiences and data collected to look for future best practices.

Q. Who is in charge of medicine in the Strategic National Stockpile (SNS) once it is deployed?
Local health officials have full control of SNS medicine once supplies are deployed to a city, state, or territory. Federal, state, and local community planners are working together to ensure that SNS medicines will be delivered to the affected area as soon as possible. Many cities, states, and territories have already received SNS supplies. After CDC sends medicine to a state or city, control and distribution of the supply is at the discretion of that state or local health department. Most states and cities also have their own medicines that they can access to treat infected persons.

Q. Are the Duckbill N95 masks the only type included in the SNS shipment?
The SNS shipments that were sent out contain several different styles of N95 masks (not just Duckbill). It is possible that the Duckbill masks are the only style sent to a particular site by the state or that the various N95 masks arrived on multiple pallets.
Masks
Please review the Interim Recommendations for Facemask and Respirator Use in Certain Community Settings Where H1N1 Influenza Virus Transmission Has Been Detected at www.cdc.gov/h1n1flu/masks.htm and the Interim Public Health Guidance for the Use of Facemasks and Respirators in Non-Occupational Community Settings during an Influenza Pandemic at www.pandemicflu.gov/plan/community/maskguidancecommunity.html for more detailed information, updates and changes.

Q. Will guidance for airborne vs. droplet precautions be changing?
The infectious disease and occupational safety experts have gone back and forth on this issue - is infectiousness really a droplet or is it aerosol? At this time there is not planned change to the recommendations. We do not know the contribution of droplet vs. aerosol and of particular concern are the healthcare workers (HCW) infected. CDC does want to know what personal protective equipment (PPE) HCW were wearing before infection before making any decisions.

Employers/Private Sector

Q. Are there key messages for businesses and employers?
Business operations that require close contact with fellow employees and the public face special considerations in preventing the spread of infectious diseases. Please visit the H1N1 Flu Resources for Businesses and Employers at www.cdc.gov/h1n1flu/business/ for more detailed information, updates, and changes.

NACCHO will update this document with additional topics and questions on a regular and as-needed basis.