

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

Situation Update

- CDC is reporting 3,009 laboratory confirmed human infections with novel H1N1 flu in 44 states and the District of Columbia (D.C.) in the United States.
- An additional 643 probable cases have been reported nationwide. (CDC will not be reporting probable cases at the state level.)
- This is a total of 3,652 confirmed and probable cases in 46 states and the District of Columbia in the United States.
- Three deaths in the U.S. have been confirmed from this outbreak to date. The third death occurred in the state of Washington in a 39-year-old and was reported on Sunday, May 10, 2009.
- Any flu-related death is tragic. Sadly about 36,000 people in the United States die from flu-associated causes in the U.S. each year, on average.
- This virus is spreading from person-to-person without regard for borders, race or ethnicity.
- CDC anticipates that there will be more cases, more hospitalizations and more deaths associated with this new virus in the coming days and weeks because the population has little to no immunity against it.
- Novel influenza A (H1N1) activity is now being detected in two of CDC's routine [influenza surveillance systems](#) as reported in the May 8, 2009 *FluView*.
- *FluView* is a weekly report that tracks U.S. influenza activity through multiple systems across five categories. (More information on seasonal influenza surveillance and the *FluView* report is below.)
- The May 8 *FluView* found that the number of people visiting their doctors with influenza-like-illness is higher than expected in the United States for this time of year.
- Second, laboratory data shows that regular seasonal influenza A (H1N1), (H3N2) and influenza B viruses are still circulating in the United States, but novel influenza A (H1N1) and "unsubtypable"* viruses now account for a significant number of the viruses detected in the United States.
- Unsubtypable viruses are viruses that through normal testing cannot be subtyped as regularly occurring human seasonal influenza viruses.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- In the context of the current outbreak, it's likely that most of these unsubtypable viruses are novel H1N1.
- This virus has been reported in 30 other countries, however, according to WHO, there is no evidence of sustained person-to-person transmission beyond two generations outside of North America.
- This kind of sustained transmission in other parts of the world would need to occur in order for WHO to raise the pandemic alert phase to level 6.
- Should WHO raise the pandemic alert level to phase 6, this would have little impact on the United States. We are already engaged in implementing our pandemic response plan.
- The list of states with the numbers of people who are confirmed cases is updated daily at approximately 11 a.m. at <http://www.cdc.gov/h1n1flu/>.
- Influenza is always serious – each year in the United States, seasonal influenza results, on average, in an estimated 36,000 deaths and more than 200,000 hospitalizations from flu-related causes.
- This outbreak certainly poses the potential to be at least as serious as seasonal flu, if not more so, especially given the fact that there currently is no vaccine against this virus.
- Because this is a new virus, most people will not have immunity to it, and illness may be more severe and widespread as a result.
- The Southern Hemisphere is just going into their flu season and how this virus behaves might give us some clues about what we can expect for the Northern Hemisphere.

We are taking action:

- The Federal Government is mounting an aggressive response to this outbreak.
- CDC's goals during this public health emergency are to reduce illness and death, and to provide information to assist health care providers, public health officials and the public in addressing the challenges posed by this newly identified influenza virus.
- Deployment of 25 percent of the SNS supplies has been completed to all 62 states or project areas.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- There are currently 112 CDC staff persons deployed in the field to support the outbreak response.
- CDC-developed PCR diagnostic test kits to detect this virus.
- CDC has prepared 994 swine RT-PCR kits, about 440 of which have already been distributed.
- All 50 states, the District of Columbia and Puerto Rico have received test kits.
- These kits are being distributed internationally as well.
- This will allow states and other countries around the world to test for this virus.
- This increase in testing capacity in the United States likely will result in a rapid jump in the number of confirmed cases in this country once states start doing their own testing.
- This will be an artifact of testing, but will actually present a more accurate picture of the true scope of novel H1N1 disease in the United States.
- CDC continues to update guidance continuously as more information becomes available.
- People who are at high risk of serious seasonal flu-related complications include pregnant women, children younger than 5 years old, people with chronic medical conditions, and people 65 years and older.
- Much of CDC's guidance is informed by studies and past experience with seasonal (human) influenza and past influenza pandemics.
- CDC believes this information from seasonal flu applies to the novel H1N1 (swine flu) viruses as well, but studies on this virus are ongoing to learn more about its characteristics and to learn what groups are at highest risk.
- This is a rapidly evolving situation and guidance should be considered interim and will be updated frequently as more information becomes available.
- Visit the CDC website at <http://www.cdc.gov/h1n1flu/> for more information or call 1-800-CDC-INFO.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- Everyday, we learn more about this virus and what we learn will continue to inform the actions that we take in response.

Pregnancy

- Pregnant women are at high risk for serious complications from seasonal flu and have been disproportionately affected in influenza pandemics.
- Pregnancy weakens a woman's immune system and places her at increased risk for serious flu-related complications. The greatest risks for pregnant women can be pneumonia or dehydration. There can also be risks to their unborn babies including pre-term labor.
- For novel influenza A (H1N1), CDC has determined that the benefits of treatment or chemoprophylaxis with zanamivir or oseltamivir "likely outweigh the theoretical risks of antiviral use."
- Therefore, CDC is recommending that if a clinician suspects that a pregnant woman is infected with this virus, she should receive antiviral treatment without confirmatory testing.
- Thus CDC recommends that antiviral use recommendations be applied to pregnant women as it is applied to other groups of persons at high risk of influenza-related complications.
- This is a more forward-leaning approach than what is taken with seasonal flu because the burden of illness on pregnant women of the novel H1N1 virus is unknown and we know from the past that influenza can be a serious disease in pregnant women.
- We are taking steps to protect pregnant women and others who may be at high risk of serious flu-related complications by pushing out our recommendations on how to aggressively treat novel H1N1 influenza.
- On our website, we have posted:
 - Pregnant Women and Novel H1N1 Considerations for Clinicians.
 - What Pregnant Women Should Know
 - Breastfeeding Your Baby: What Parents Should Know
 - Info for Pregnant Women in Education, Child Care, and Health Care

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- In addition, we are reaching out through partners to get the word out to these groups that they should take precautions; be aware of warning signs; and seek medical care sooner rather than later.

Testing, Surveillance and Reporting

- State health departments can currently determine when a positive flu sample collected from a patient is a new or unusual flu virus in humans; however, health departments cannot currently determine if that sample is the same novel H1N1 flu virus that has caused illness in the United States and elsewhere.
- CDC is providing state public health laboratories with testing kits that can identify the novel H1N1 virus. Once states have these test kits and have verified that their testing is running properly, they will no longer need to send samples to CDC for lab confirmation.
- This process is ongoing.
- As previously noted during telebriefings, the confirmed number of cases in the U.S. has likely been a gross underestimation of the actual number of cases in the U.S.
- Increased testing capacity in the United States will give us a more accurate and rapid picture of the burden of disease in this country.
- But soon, states may reach a point where it will become impossible to count individual cases. At that point, we will be transitioning to using reporting systems similar to those used for seasonal flu.
- We don't count individual cases for seasonal flu, we just monitor activity levels through a nationwide surveillance system, which we will be using to monitor spread of illness caused by this new virus.
- CDC will count individual cases for as long as possible and then will transition to using reporting systems similar to those used for seasonal flu.
- The Epidemiology and Prevention Branch in the Influenza Division at CDC collects, compiles and analyzes information on influenza activity year round in the United States and produces a weekly report called "*FluView*" from October through mid-May.
- In light of the current outbreak, weekly publication of *FluView* will continue over the spring and summer.
- The U.S. influenza surveillance system is a collaborative effort between CDC and its many partners in state and local health departments,

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

public health and clinical laboratories, vital statistics offices, healthcare providers, clinics and emergency departments.

- Information in five categories is collected from nine different data sources that allow CDC to:
 - Find out when and where influenza activity is occurring
 - Track influenza-related illness
 - Determine what influenza viruses are circulating
 - Detect changes in influenza viruses
 - Measure the impact influenza is having on deaths in the United States
- More information about CDC' s influenza surveillance systems can be found at <http://www.cdc.gov/flu/weekly/fluactivity.htm>

Antiviral Guidance

- The updated interim antiviral guidance recommends that hospitalized patients be treated with antiviral medications and that sick patients who are at high risk of serious seasonal flu-related complications also receive antiviral treatment.
- For prevention (chemoprophylaxis), CDC recommends that clinicians **consider** use of antivirals in:
 - People who are at high risk of serious seasonal flu-related complications and have been in close contact with someone who is ill with novel H1N1 virus.
 - Health care workers, public health workers and emergency responders who have been in close unprotected contact (ie, no personal protective equipment) with persons who are sick with novel H1N1.
- CDC recommends that health care workers, public health workers and emergency responders use appropriate personal protective equipment during exposures with persons who are ill with novel H1N1.
- Pregnant health care workers whose job brings them in daily close contact with people who are potentially ill with novel H1N1, should consider temporary reassignment to a position that does not involve direct patient contact.

Possible High Risk Groups

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- Certain groups of people are at greater risk of serious influenza-related complications from seasonal influenza.
- This includes children younger than 5 year old, pregnant women, people with chronic medical conditions, and people 65 years and older.
- It would not be surprising to find a pattern where these groups of people also are at higher risk of serious complications from this novel H1N1 virus.
- Studies on this virus are ongoing to learn more about what groups are at highest risk.

Guidance for Institutions of Higher Education and Post-secondary Educational Institutions

- On Saturday, May 9, CDC issued interim guidance for Institutions of Higher Education and Post-secondary Educational Institutions in Response to Human Infections with Novel Influenza A (H1N1) Virus.
- This document provides interim guidance specific for institutions of higher education during the outbreak of novel influenza A (H1N1) virus on suggested means to reduce the spread of influenza in their communities.
- CDC is not currently recommending that institutions of higher education or post-secondary educational institutions cancel or dismiss classes or other large gatherings.
- As a means to prevent the spread of disease, institutions of higher education or post-secondary educational institutions should encourage people with influenza like illness to stay home and away from large gatherings.
- Persons who are at high risk of complications from novel H1N1 influenza (for example, persons with certain chronic medical conditions, children less than 5 years of age, persons age 65 years or older, and pregnant women) should consider staying away from public gatherings if their community has several reported cases of novel H1N1 influenza.
- Administrators are strongly encouraged to contact their state and local public health authorities if they have confirmed cases of the novel H1N1 flu or a large number of cases of influenza like illness on their campuses or in their communities.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- Students, faculty, or staff who live on or off campus and have influenza-like symptoms (fever with either cough or sore throat) should self-isolate (stay away from others) in their dorm room or home for 7 days after the onset of illness, or at least 24 hours after symptoms have resolved, whichever is longer.
- People with influenza-like illness who wish to seek medical care should contact their healthcare provider or institution health services by telephone or other remote means *before* seeking care. Those who must leave their home or dorm room should cover their nose and mouth when coughing or sneezing. A loose fitting surgical mask may be used for this purpose, but a tissue or other covering may be appropriate as well.
- Institutions of higher education or post-secondary educational institutions should regularly communicate any relevant information about novel H1N1 with all students, faculty, and staff. Updated information can be found on the CDC's H1N1 Flu web site (www.cdc.gov/h1n1flu).
- Use institution gatherings or events as an opportunity for school officials to delivery key educational messages about prevention, including emphasizing hand hygiene, cough etiquette, and staying out of class or gatherings at the first sign of any respiratory symptoms.

Guidance for Public Gatherings

- On Sunday, May 10, CDC issued Interim Guidance for Public Gatherings in Response to Human Infections with Novel Influenza A (H1N1)
- This new document provides interim guidance for state, local, territorial, and tribal officials to use in developing recommendations for large public gatherings in their communities.
- CDC does not currently recommend cancelling public gatherings.
- Decisions made regarding large public gatherings and novel H1N1 flu should be based on local influenza activity, evolving information about severity of illness from this virus and working with local or state public health authorities.
- Persons with a flu-like illness (fever with either cough, sore throat) should not attend public gatherings for 7 days after the onset of illness, or at least 24 hours after symptoms have gone away, whichever is longer.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- Persons who are at high risk of complications from novel influenza A (H1N1) infection (for example, persons with certain chronic medical conditions, children younger than 5 years, persons 65 and older, and pregnant women) should consider their risk of exposure to novel H1N1 influenza if they attend public gatherings in communities where novel influenza A (H1N1) virus is circulating. In communities with several reported cases of novel influenza A (H1N1) virus infection, persons who are at risk of complications from influenza should consider staying away from public gatherings.
- Based on currently available information, masks and respirators are not recommended for non-healthcare settings.
- Event organizers should take active steps to help reduce risk:
 - Make hand washing facilities with soap and running water, hand sanitizer, and tissues widely available at the event;
 - Provide medical assessment and care on site if possible;
 - Provide an alternate participation option (for example, web-based viewing sites) to reduce crowding.

Probable Cases

- CDC will verbally report the total number of “probable” cases of infection with novel influenza A (H1N1) virus nationwide. (CDC will not be reporting probable cases at the state level.)
- Probable cases are reported to CDC by state health departments and occur in people who test positive for influenza A virus infection at their state health department laboratory, but whose test samples have not had confirmatory testing for the novel H1N1 flu strain.
- To date, the vast majority of “probable” cases sent to CDC by state health departments have been laboratory confirmed as cases of novel H1N1 flu infection.
- Reporting probable cases better reflects the true impact of novel H1N1 flu on the United States.

Novel H1N1 Flu Virus

- The hallmark of influenza viruses is their ability to undergo constant and dramatic change.
- Many different animals and, of course, humans get infected with influenza viruses, but the viruses generally stick with one species or another.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- However, sometimes flu viruses jump from one species to another, and sometimes, viruses from different species can infect the same host and result in a new combination of virus genes.
- This last scenario is what happened and resulted in the novel H1N1 flu virus.
- This is a very unusual virus. This particular genetic combination of influenza virus segments has not been recognized before in the U.S. or elsewhere.
- Testing of a number of the virus samples submitted to CDC show that they are very similar, which means that they likely originated from the same source.
- It's too soon to predict what will happen or how the virus might change.
- It is important that we continue to watch this virus carefully to look for changes that may occur.
- The Southern Hemisphere is just going into their flu season and how this virus behaves will give us some clues about what we can expect for the Northern Hemisphere.

Vaccine

- We are aggressively taking early steps in the vaccine manufacturing process, working closely with manufacturing and the rest of the government.
- Vaccines are a very important part of a response to influenza, including novel influenza that may become pandemic.
- CDC has isolated the novel H1N1 flu virus and is working to make a candidate vaccine virus that can be provided to industry so that manufacturers can scale up for production of a vaccine, if necessary.
- There are many steps involved with producing a vaccine, and we are committed to going forward with the NIH, and FDA, BARDA, and the manufacturers of influenza vaccines, to see about developing full scale vaccine production.
- If things go well, and we achieve full scale production, it will be several months until the vaccine will be available.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- So a vaccine is an important tool for the future.

Public/Personal Responsibility:

- You have a role in protecting yourself and your family.
- Stay informed. Health officials will provide additional information as it becomes available. Visit www.cdc.gov
- Everyone should take these everyday steps to protect your health and lessen the spread of this new virus:
 - Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
 - Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.
 - Avoid touching your eyes, nose or mouth. Germs spread this way.
 - Try to avoid close contact with sick people.
 - Stay home if you are sick for 7 days after your symptoms begin or until you have been symptom-free for 24 hours, whichever is longer. This is to keep from infecting others and spreading the virus further.
- Children, especially younger children, might potentially be contagious for longer periods. CDC is studying the virus and its capabilities to try to learn more and will provide more information as it becomes available.
- Follow local public health advice regarding school closures, avoiding crowds and other social distancing measures based on illness in specific communities.
- We do have antiviral medications in our arsenal against flu.
- The priority use for influenza antiviral drugs during this outbreak is to treat severe influenza illness (including those who are hospitalized or ill people who are considered at high risk of serious influenza-related complications).
- Influenza antiviral drugs are prescription medicines (pills, liquid or an inhaler) with activity against influenza viruses, including novel influenza H1N1 viruses.

**Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM**

- Antivirals work differently than vaccines or antibiotics and need to be taken according to your doctor's directions.
- There are two influenza antiviral medications that are recommended for use against novel influenza H1N1. These are oseltamivir (trade name Tamiflu®) and zanamivir (trade name Relenza®).
- Influenza antiviral drugs work best when started soon after illness onset (within two 2 days), but treatment with antiviral drugs should still be considered after 48 hours of symptom onset, particularly for hospitalized patients or people at high risk for influenza-related complications.
- CDC continues to issue and update interim guidance daily on the website and through health alert network notices as information becomes available.

Virus Name

- This is a rapidly evolving situation and current guidance and other web content may contain variations in how the novel H1N1 flu virus is referred to. Over the coming days and weeks, these inconsistencies will be addressed, but in the interests of meeting the agency's response goals, all guidance will remain posted and new guidance will continue to be issued. CDC's highest priority is on providing guidance to save lives and limit the impact of this outbreak on public health.

Pork

- The novel H1N1 flu virus is not transmitted by food. You cannot get novel H1N1 flu from eating pork products.

Seasonal Flu Vaccine

- Production of the seasonal flu vaccine for next season is nearly complete and will be completed. Seasonal flu is responsible for causing an estimated 36,000 flu-related deaths and 200,000 flu-related hospitalizations in the U.S. each year. Seasonal flu vaccine is always a public health priority.

Seasonal Influenza Activity

- Regular seasonal influenza activity continues in the United States at this time.

Novel H1N1 Flu
Updated Key Points
May 12, 2009: 11AM

- There are seasonal influenza A H1, influenza A H3 and type B viruses circulating and causing illness in the United States – these are viruses that regularly circulate among humans – in addition to the novel influenza A H1N1 virus.
- There is the possibility of reassortment (swapping virus genes) between this novel influenza A (H1N1) virus and circulating seasonal influenza viruses.
- Such a reassortant virus could be resistant to the antiviral drug oseltamivir because most of currently circulating seasonal H1 viruses are resistant to oseltamivir. (They are sensitive to zanamivir and the adamantane drugs amantadine and rimantidine.)
- That is one reason why it's important to continue to watch the novel H1N1 virus and human seasonal viruses carefully over the coming weeks and months and to continue to be prepared and proactive.
- In addition, as always, we must continue to look for emergence of other flu viruses with pandemic potential.

"Swine Flu Parties"

- CDC does not recommend "swine flu parties" as a way to protect against novel H1N1 flu in the future. While the disease seen in the current novel H1N1 flu outbreak has been mild for many people, it has been severe and even fatal for others. There is no way to predict with certainty what the outcome will be for an individual or, equally important, for others to whom the intentionally infected person may spread the virus.
- CDC recommends that people with novel H1N1 flu avoid contact with others. They should stay home from work or school for 7 days after the onset of illness or until at least 24 hours after symptoms have resolved, whichever is longer.

("Swine flu parties" have received media attention lately. These are gatherings during which people have close contact with a person who has novel H1N1 flu in order to become infected with the virus. The intent of these parties is to become infected with what for many people has been a mild disease, in the hope of having natural immunity to the novel H1N1 flu virus should it circulate later and cause more severe disease.)