



*A Union of Professionals*

# **Pandemic Flu and You**

## **What you need to know to protect your students and stay well on the job**

### **For school nurses**

The Centers of Disease Control and Prevention (CDC) has updated the agency's guidance for schools in anticipation of the upcoming flu season. The CDC predicts that the predominant flu strain will be the 2009-2010 H1N1 influenza A virus. However, regular seasonal flu also may be circulating in your community.

The CDC now believes that schools should not close when a confirmed case of H1N1 has been identified. Closing schools did not work to slow the spread of the virus during the spring 2009 outbreak.

The CDC is broadening its recommendations beyond school closure for controlling the spread of H1N1 in schools. The current recommendations can be found at [www.flu.gov/plan/schoolflutoolkit.pdf](http://www.flu.gov/plan/schoolflutoolkit.pdf).

The shift in guidance may impose more demands on school nurses, who undoubtedly will be seeing more sick children and staff as H1N1 and/or seasonal influenza hits their school.

If you have not seen your school district's pandemic influenza plan, we recommend that you or your local request a copy from the administration. It's especially important that you understand how your role is described in the plan (i.e., are you described as "essential personnel," and how is "essential" defined?). If anything is not clear, discuss your concerns with your local union leadership.

The AFT has reviewed the current government guidance and prepared the following tips for school nurses based on recommendations from the CDC and the Occupational Safety and Health Administration (OSHA). Check the AFT Web site for updates throughout the flu season.

## **The Basics**

### **What is pandemic flu?**

A pandemic is a global disease outbreak. A flu pandemic occurs when a new virus emerges for which there is little or no immunity in the human population. Once international spread begins, pandemics are considered unstoppable, and even a mild pandemic flu can ultimately cause millions of deaths worldwide. Last June 2009, the World Health Organization declared that the new, H1N1 virus had become a pandemic flu. More than 70 countries and all 50 states have reported human cases of H1N1 flu.

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## **What are the symptoms of pandemic flu?**

The symptoms of the H1N1 flu are similar to seasonal flu:

- fever—usually over 100 F
- headache
- fatigue
- cough
- sore throat
- runny or stuffy nose
- muscle aches
- nausea, vomiting and diarrhea (for some people)

Most people who have become ill with the virus in the United States have had a mild illness and have recovered without medical treatment. But flu viruses are constantly changing, and little is certain about this new virus. The CDC believes the H1N1 virus could cause a number of illnesses and deaths during the yearly influenza season.

## **What makes H1N1 special?**

It's new, so humans have no resistance to it. Pandemic flu strains are often new viruses that develop when an animal or bird virus mixes with a human virus.

The H1N1 virus originally was referred to as “swine flu” because early laboratory tests showed that many of the genes in this virus were similar to those that infect pigs. It turns out that while the H1N1 strain has two genes from flu viruses that circulate in pigs in Europe and Asia, it also contains bird flu genes and human genes. H1N1 is now a human flu virus causing widespread illness.

Who is at risk and which groups of people may be hardest hit?

Everyone is at risk of catching pandemic flu because there is little or no natural immunity to a new virus. During past pandemics, rates of illness reached 25 to 35 percent of the total population.

So far, the H1N1 virus has caused the most cases of flu in school-age children and young adults. As you know, there were outbreaks in many schools last spring. The age groups at greatest risk of infection and flu-related complications from the pandemic virus are not yet known. The CDC is conducting studies to see if some people might have natural immunity to this virus, depending on their age. During the 2009 spring H1N1 outbreak, the CDC identified certain high-risk groups based on hospitalization for the H1N1 flu. At special risk were pregnant women, people with asthma and other chronic respiratory illnesses, and people with compromised immune systems.

## **Is there a vaccine to prevent H1N1 flu?**

The U.S. government is planning to purchase up to 600 million doses of vaccine for H1N1. However, not all the vaccine will be available at the onset of the influenza season in late October; in fact, the Food and Drug Administration (FDA) and the CDC estimate that only 15 million doses will be available by then. Therefore, the CDC is recommending that high-risk groups and children between the ages of 5 and 18 get priority for vaccination.

The vaccination program will be further complicated by two additional factors: the possibility that the H1N1 vaccine will have to be administered in two doses, and the recommendation that everyone also receive the seasonal flu vaccination.

Many states are now making plans to use schools as mass vaccination sites to deliver the H1N1 and seasonal flu vaccinations. It's not clear if school nurses will be recruited to assist in these programs.

## Treatment

Two antiviral drugs may be useful in lessening the severity of pandemic flu. To be effective, these drugs must be started within 48 hours of the first flu symptoms:

- Oseltamivir (brand name Tamiflu®), approved to both treat and prevent influenza A and B virus infections in people age 1 and older.
- Zanamivir (brand name Relenza®), approved to treat influenza A and B virus infection in people age 7 and older and to prevent influenza A and B virus infection in people age 5 and older.

The CDC recommends these drugs for people at high risk of severe infection and complications associated with any influenza—older individuals, patients in hospitals and nursing homes, very young children, pregnant women, people with chronic illnesses and those with suppressed immune systems. For school nurses occupationally exposed, consult with your doctor about whether an antiviral medication is warranted.

### How is influenza transmitted?

Flu viruses are spread primarily by coughs and sneezes from a person infected with the virus. This happens when droplets from an infected person's cough or sneeze travel through the air and make their way to the mouth or nose of a person nearby. Some researchers believe that the virus also may be transmitted through small aerosol particles that travel further in the air than heavy droplets.

In addition, droplets often land on smooth surfaces such as door handles, desks, walls, windows and chairs. When people touch these surfaces, they can become infected. The virus stays alive for 24 to 48 hours on hard, smooth surfaces.

The most effective way to stop the spread of the virus is by stressing to the entire school community the need to wash hands, cover a cough or sneeze, and stay home when sick. Washing and disinfecting school surfaces, particularly in areas where there is high traffic or many infected students, such as the school nurse's office, is also helpful.

Recent research indicates that influenza may also be an airborne disease. The virus may travel further distances through the air than previously believed.

## The Special Role of School Nurses in a Flu Pandemic

It was right after the first bell on a Thursday morning in late April 2009 that six students arrived at the office of Mary Pappas, head nurse at the St. Francis Preparatory School in Queens, N.Y. The students had sore throats and high fevers. Within two hours, dozens of students from the school's 2,700 student body were lining up in the hallway to see the school nurse. By 10:30 a.m., Pappas notified the supervising doctor for the city's Bureau of School Health that large numbers of students were ill with fevers over 101 F. Soon, the New York City health department and the CDC sent teams to investigate. New York's first H1N1 flu outbreak was under way, and it had been identified by a school nurse.



School nurse Mary Pappas was the first to recognize and identify an outbreak of H1N1 flu at a school in New York City in April 2009.

The CDC has based many of its recommendations on the experience of Mary Pappas and AFT school nurse members across the country. They include:

Identify students and staff with respiratory symptoms as early as possible.

School nurses play a pivotal role both in infectious disease surveillance, and care of individual students with flu. The CDC recommends that:

- Students, faculty and staff who appear to have an influenza-like illness at school should be isolated promptly in a room separate from others until they can be picked up or go home. Keeping sick students in the school office is not an acceptable isolation plan.
- Sick students or others should be instructed to stay home and not attend school or go out, except to seek medical care, for at least seven days, even if their symptoms resolve sooner.
- People who are still sick after seven days should not be allowed to return to school for at least 24 hours after their symptoms disappear.
- School nurses should communicate regularly with school health and public health officials about reporting influenza-like illnesses in schools, or changes in federal guidance for schools or school nurses.
- School nurses should know your school's plan for pandemic flu, who will communicate with you, who will be in touch with the health department and how information will be disseminated quickly.

Children are a major source of the spread of the disease. They shed the greatest amount of virus and pose the greatest risk of transmission. To curb viral spread, nurses should emphasize these five steps to the school community:

- Cover your nose and mouth with a tissue when you cough or sneeze (cough or sneeze into a sleeve if a tissue isn't available).
- Wash your hands often.

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Each sneeze contains 100,000 droplets.

- Use hand sanitizer if hand washing with soap and water is not possible.
- If you feel sick at school, see the nurse.
- If you know you're sick, stay home in bed, rest and drink liquids.

Nurses need to protect themselves against flu, too.

Mary Pappas and her two nursing assistants never got the H1N1 virus, despite more than 150 cases at their school. As a school nurse, you are likely to be exposed to many infected people, so rely on basic precautions—and a few extras as well.

Try to keep some distance between you and sick students.

Creating social distances in a crowded nurse's office may be next to impossible, but you can achieve the same affect by putting a surgical mask on a sick student, if feasible. A mask will help contain their droplets and protect others around them.

Take care of yourself, using an occupational safety and health approach. The AFT recommends following OSHA ([www.OSHA.gov](http://www.OSHA.gov)) pandemic influenza guidance to reduce school nurse work-related exposure. We also recommend that these precautions be taken by staff members who are assigned to isolation rooms for symptomatic students awaiting pickup. According to the OSHA definition, you are a "high exposure risk" worker when you are surrounded by many staff and students with flu.

Among other things, you should have access to N95 respirators. Here is what OSHA says in its quick card for pandemic influenza:

### **Who needs to wear a respirator?**

"High Exposure Risk" Workers with a high potential for exposure to known or suspected pandemic sources—for example, doctors, nurses, and other hospital staff who enter patients' rooms; and emergency responders transporting sick patients.

Other Workers whose work may not normally put them at Very High or High Exposure Risk but who, during a pandemic, are performing high-risk tasks such as isolating and quarantining people who are ill.

## Respiratory Protection Program

Respirators must be used in the context of a comprehensive respiratory protection program (see OSHA standard 29 CFR 1910.134 or [www.osha.gov](http://www.osha.gov)), which includes:

- Medical evaluation,
- Training,
- Fit testing, and
- A written program.

OSHA also recommends other personal protective equipment such as gowns and gloves. And if you are involved in any immunization program, OSHA recommends that syringes be equipped with safety devices to prevent accidental needle sticks.

Contact the AFT health and safety program for more information on the elements of a good occupational health and safety program.

If you do get sick, stay home.

Though nurses tend to be heroic and work when sick, you aren't doing yourself or anyone else a favor if you're spreading the pandemic flu virus. You need bed rest, and to stay home for seven days after your respiratory symptoms appear or for 24 hours after your symptoms have disappeared. No returning to work just when you start to feel a little better! Set an example.

Stay tuned. Watch for updates on the AFT Web site: [www.aft.org/topics/h1n1](http://www.aft.org/topics/h1n1), or contact the AFT health and safety program at: 800-238-1133 ext. 5674, 5677 or 4365.

**For information on H1N1 Influenza,  
visit [www.aft.org/topics/h1n1](http://www.aft.org/topics/h1n1).**



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