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H1N1: A Look at the Local Impact of the Global Pandemic

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Nausea, upset stomach, diarrhea – things that might send a person reaching for a bottle of Pepto Bismol. Add an achy body, fever and congestion, and create the flu – the seasonal virus responsible for sending many people to doctors' offices in the fall and winter months.

Oklahoma State senior Sam Wright woke up early Wednesday morning coughing, congested and achy. When she wasn't feeling better a few hours after taking cough medicine, a friend told her she needed to go to the doctor, who told Wright she had a flu virus. He said although she is contagious, she could go to class the next day if she stayed far enough away from people. However, by Thursday at 3 a.m., Wright was nauseous and had chills.

“I felt like I'd been run over by a train,” Wright said. “I haven't been able to go to class and I was miserable in the one I went to on Wednesday.”

When healthy Americans like Wright, who has never before had the flu, were hit with these symptoms in April 2009, months before the traditional flu season starts, the Centers for Disease Control and doctors were scrambling to find out what the cause was.

The CDC began testing and found a flu virus similar to the one that shows up in swine. Because of the close link, people began calling it the “swine flu”. Further testing showed the virus was not being passed from swine to humans, so the CDC began to refer to it as the H1N1 flu virus instead.

There are over 100 subtypes of the flu virus, most of which the general public refers to

as the seasonal flu, said Dr. David Crosswhite, D.O. There are three major types of flu, types A, B and C. The H1N1 virus is a subtype of type A, which can change drastically and quickly, according to the CDC web site, causing pandemics such as the current one, because there is not a vaccine created and approved for the specific subtype.

One June 11, 2009, the World Health Organization declared the 2009 H1N1 flu a pandemic. In the week of September 20–26, 99 percent of all flu cases being reported were the 2009 H1N1 virus, according to the CDC. Since then, Crosswhite said, the CDC has stopped recording the number of weekly H1N1 cases.

Symptoms of H1N1 include cough, sore throat, fever, diarrhea, muscle aches, body aches, headache, congestion, runny nose, nausea and vomiting. These symptoms are the same as those of the seasonal flu but are more mild, Dr. Garrick Shreck, D.O., said. The incubation period is typically 48-72 hours, Shreck said.

Not all symptoms have to be present for a person to be diagnosed with H1N1.

“If more than three symptoms are present, you probably have the H1N1 virus,” Crosswhite said.

Shreck said H1N1 isn't killing people. He said the people who have died and had the H1N1 virus have had other underlying health conditions. Shreck said H1N1 is a mild flu when compared to the seasonal flu.

“For most young, healthy people, it's like having a cold for a couple of days then they're fine,” Shreck said.

H1N1 is spread much like other viral infections: in the air and by people.

“H1N1 is airborne – water droplets, microscopic water from sneezes, coughs, tears, mucus membranes, anywhere,” Crosswhite said. “It is commonly transferred through the air.”

H1N1 is also transferred through hand to hand contact.

“Frequent thorough hand washing is the best thing to do to prevent the spread,” said Shreck.

To clean surfaces, use any alcohol-based sanitizer. Soap and water also do a good job of sanitizing. Exposure to air for more than three minutes will also kill the flu virus, because the virus is very unstable, Crosswhite said.

People who have H1N1 should stay away from others to prevent spreading the virus until their fever has been gone for at least 24 hours without the use of a fever-reducing medication, Shreck said.

For those who have the flu, there are options to help get better, quicker. Tamiflu and Relenza, over the counter medications, are both greater than 99 percent effective in killing the flu virus.

There is a shortage in the pediatric variations of both Tamiflu and Relenza, so the CDC recommends not treating pediatric patients who have only a mild case of the H1N1 flu. People who have other underlying medical conditions such as cancer or heart failure should still seek treatment if they contract the H1N1 virus, regardless of the severity, Crosswhite said.

People with underlying medical conditions that make them high-risk for the flu virus and who are living with someone who has H1N1 can take Tamiflu or Relenza as a preventative measure, Shreck said.

Crosswhite said the CDC does not recommend treating people who are generally healthy, to protect the sensitivity of the antiviral medicines.

There are tests available for those who believe they may have contracted H1N1, however, they are not given, nor necessary, for every patient.

“If people come in with respiratory conditions, we test for flu A and flu B,” Shreck said.

Crosswhite said the tests, including subtyping, are about \$200 and the subtyping is typically not covered by insurance. The tests are sensitive and in as many as 40 percent of cases will not confirm the flu virus, even if it is present.

There is no reason to be tested if you have been in contact with a person who has been diagnosed with the H1N1 virus, Crosswhite said.

“The reason testing is not recommended is that 97 percent to 98 percent of all the influenza cases tested in the U.S. since September are positive for H1N1,” Crosswhite said.

“That is, by definition, an epidemic or pandemic. If you have flu symptoms, you probably have H1N1, or the swine flu. Testing will not change the course of treatment.”

There is a vaccine for the H1N1 flu virus undergoing the process of getting FDA approval. However, getting the H1N1 vaccination is not always recommended.

“At this stage in the game, a vaccine is too late,” Crosswhite said. “If you get the H1N1 vaccine, your immune system will not be immunized, or be able to respond to it, for 4-6 weeks.”

People who should get the H1N1 vaccine include pregnant women, infants to 2-year-olds, medical workers, geriatrics and those who have chronic health problems that affect their

immune system, such as HIV, asthma and cancer, Shreck said.

Crosswhite and Shreck both recommend getting your seasonal flu shot, regardless of your medical history or if you've had the H1N1 vaccination.

“The seasonal flu shot will not have the H1N1 vaccine in it,” Sheck said. “The high risk groups are being recommended to get seasonal and H1N1 vaccinations. Everyone should continue to get the seasonal vaccination.”

The seasonal flu shot is trivalent, meaning it is used to protect against at least 3 types of the flu virus. The shot includes the previous year's strain of the flu, as well as two other types of the flu, in hopes of creating a cross-reactive vaccination. The two other types are chosen based on what strain the CDC believes will hit the world hardest.

Last year's strain was also a type A strain and considered to be H1N1, but it was not the same as this year's. It was resistant to Tamiflu, but Relenza fought the virus.

Crosswhite said he does not look for this year's H1N1 virus to be any more or less prevalent or severe during the traditional flu season.

“H1N1 will probably come and go, just like it is right now,” Crosswhite said. “We don't know if there will be another epidemic in the season.”