

Epidemiology Newsletter

Novel Influenza: H1N1

August 2009

The emergence of a novel influenza A strain (H1N1) in the United States and Mexico in April has resulted in the declaration by the World Health Organization on June 11, 2009, that a pandemic is underway. Since the strain was first identified it has spread rapidly throughout North America and many other countries. The designation as a pandemic is not a reflection of the severity of the epidemic but reflects ongoing community level outbreaks in multiple parts of the world.

The Tennessee Department of Health will no longer report confirmed cases of H1N1. Because of how widespread novel H1N1 flu is within the state of Tennessee and since only a small number of people with respiratory illness are tested for novel H1N1, confirmed and probable case counts do not reflect the true number of novel H1N1 flu cases in Tennessee, limiting the benefit of reporting these numbers on a regular basis. The Epidemiology Department continues to monitor for community wide illness through its normal surveillance activities. This flu season, surveillance of influenza-like illness will begin September 1.

2009 H1N1 Pandemic Influenza Information:

As school starts back, we expect to see the current low levels of pandemic influenza disease in Tennessee increase. We want to let you know what to expect about vaccine and where to go for the latest information from CDC. **Please start giving 2009 seasonal vaccine as soon as it arrives:** you will want to make room for pandemic vaccine coming soon! Immunity from either injected or live virus flu vaccines will last for at least a year.

Vaccine Developments:

The CDC has recommended these priority target groups for vaccination, based upon their burden of disease and risk of serious illness:

Everyone ages 6 months through 24 years

All pregnant women and persons living with or caring for infants <6 months

All healthcare workers and emergency services personnel

Persons 25-64 with other medical risk factors

Projections indicate that there will be plenty of vaccine for those who want to receive vaccine. Most people will need 2 doses at least 3 weeks apart (studies being done to define that now) The vaccine will be FDA licensed – it is the same vaccine as seasonal flu, just with a different virus strain. Vaccine, and supplies to give it, will be provided by the federal government – non-Health Department providers who administer the vaccine will be able to charge an administration fee.

H1N1 Vaccine and Tennessee Vaccines For Children (VFC)

All VFC enrolled providers will receive updates through VFC blast faxes.

Non-VFC providers may register to get information about receiving and administering the pandemic vaccine at their facility by going to TWIS (<http://twis.tn.gov>).

VFC providers do not need to sign up there – we presume that you will want to receive and administer this vaccine to your patients, so you will automatically be sent all necessary information.

Information is still emerging – we will keep you updated.

For the latest H1N1 guidance from CDC

www.flu.gov or www.cdc.gov/h1n1flu

We recommend your office's pandemic influenza point person go to www.cdc.gov/h1n1flu and click on "Get email updates" to the right of the page. He or she can subscribe for email notices about H1N1 whenever new guidance for clinicians or vaccine information is updated.

Typoid Fever In Hamilton County

Typhoid fever, caused by *Salmonella* serovar Typhi (*Salmonella* Typhi), is spread by food and water contaminated by the feces or urine of infected persons; 2%–5% of those infected become chronic carriers. Worldwide, an estimated 17 million cases of typhoid fever and 600,000 fatalities caused by the disease occur annually. With the provision of clean water and adequate sewage treatment to virtually the entire population, typhoid fever has become a rare disease in the United States. The annual rate has been less than 1 case/100,000 population for 120 years. Most of the average of 400 cases reported annually in the United States have been from travelers to countries where the disease is endemic.

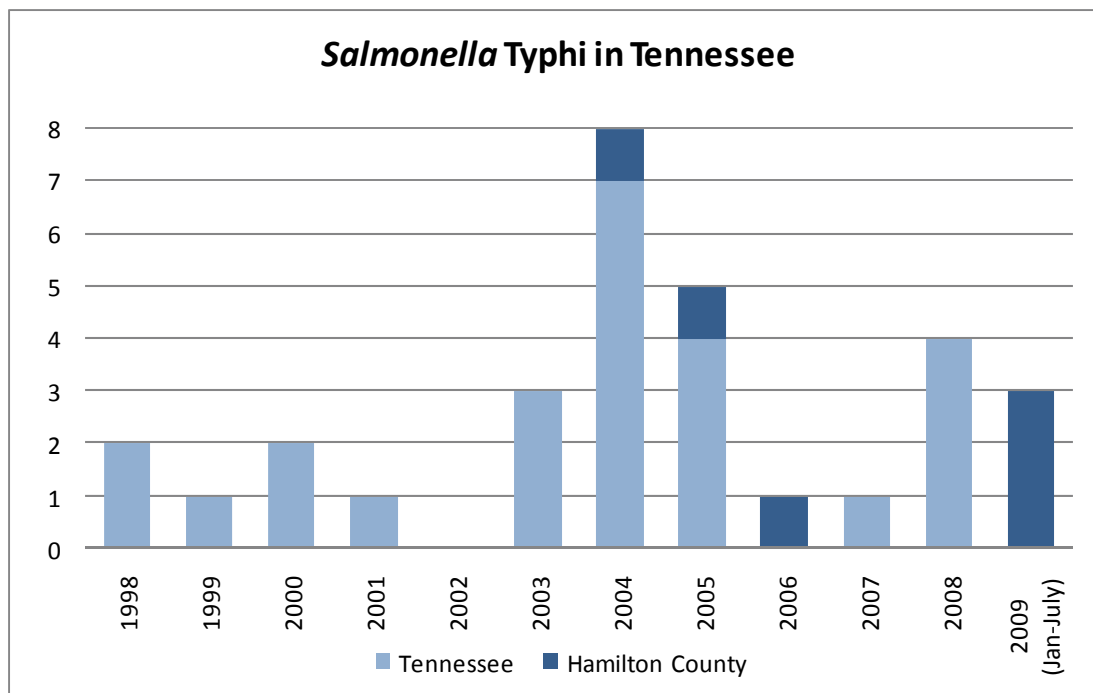
The Chattanooga-Hamilton County Health Department has investigated three confirmed cases of *Salmonella* Typhi in children who have not traveled outside of Tennessee. Testing of all family members associated with the cases revealed two possible carriers. Carriers and cases have all been treated with antibiotics and have recovered.

Symptoms of typhoid fever develop gradually and include high fever (as high as 102° to 104° F), headache, malaise, abdominal pain and tenderness, hepatomegaly, splenomegaly and sometimes diarrhea. Some patients also develop a rash of flat, rose-colored spots or mental status changes. In young children symptoms can be milder with only a nondescript febrile illness. Symptoms usually occur within 1-2 weeks after exposure to the bacteria, but can occur from 3 to 60 days after exposure.

With treatment, illness usually resolves in 2-3 days. People who do not get prompt medical treatment may continue to have a fever for weeks or months, and as many as 20% may die from complications of the infection.

Salmonella Typhi can be isolated from blood, stool or other clinical specimens. Individuals, particularly children with symptoms suggestive of typhoid fever should be considered for testing regardless of their travel history.

All cases of *Salmonella* including Typhi should be reported to the Health Department by calling the Epidemiology Department at 423-209-8190.



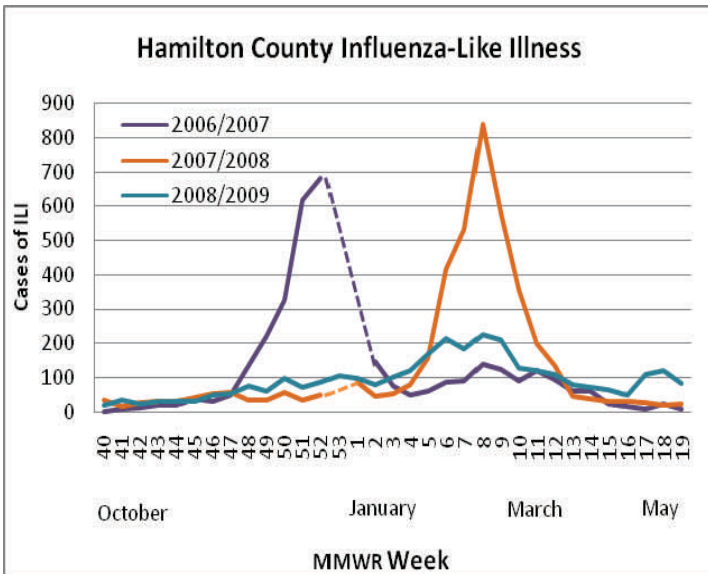
Tools for Healthcare Settings

It is uncertain at this time how severe this novel H1N1 outbreak will be in terms of illness and death compared with other influenza viruses. 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. It is possible that this new strain will continue to circulate and cause an increase in cases when seasonal flu is also circulating typically between October and April. Medical practices can assist in the detection and management of a potential infectious disease epidemic by implementing response and control measures designed to minimize transmission of illness. Preparedness resources specific to medical offices are available at:

www.flu.gov/plan/healthcare/
www.aafp.org/online/en/home/clinical/disasterprep/swine-flu.html

Novel H1N1 **fact sheets** are available at:
<http://health.hamiltontn.org/Epidemiology>

Influenza-Like Illness Surveillance



This year, counts of seasonal influenza-like illness (ILI) will include novel H1N1. Flu has continued to circulate throughout our community this summer. In anticipation of the 2009/2010 flu season, ILI surveillance will begin September 1. The Epidemiology Department will publish weekly counts of ILI on the Health Department website: <http://health.hamiltontn.org/Epidemiology>

If you are interested in participating by reporting ILI, please email us at sarahc@hamiltontn.gov.

Epidemiology Report

January 2009—July 2009

| Hamilton County Diseases Reported | Cases |
|---|-------|
| Campylobacteriosis | 21 |
| Cryptosporidiosis | 0 |
| Ehrlichiosis | 1 |
| Giardiasis | 5 |
| Group A Streptococcus, invasive | 4 |
| Group B Streptococcus, invasive | 13 |
| Guillain-Barre syndrome | 3 |
| Haemophilus influenzae, invasive | 4 |
| Hepatitis B, acute | 2 |
| Hepatitis C, acute | 1 |
| Legionellosis | 1 |
| Lyme disease | 11 |
| Malaria | 1 |
| MRSA (S.aureus, methicillin resistant), invasive | 85 |
| Neisseria meningitidis, invasive | 0 |
| Pertussis | 6 |
| Rocky Mountain spotted fever | 4 |
| Salmonellosis | 18 |
| Shigellosis | 22 |
| STEC (Shiga toxin-producing Escherichia coli) | 2 |
| Strep pneumoniae, drug resistant, invasive | 15 |
| Strep pneumoniae, invasive | 30 |
| Toxic-shock Syndrome, Staphylococcal | 0 |
| VRE (Vancomycin-Resistant Enterococcus), invasive | 5 |
| Vibriosis | 0 |
| Yersiniosis | 0 |
| Other Programs: | |
| Perinatal Hepatitis B Program | 5 |
| Restaurant Complaints Investigated | 113 |
| 2008 Outbreak Investigations | 13 |
| For a complete list of reportable diseases in Tennessee go to http://health.hamiltontn.org/Epidemiology/ | |

Animal Rabies in Hamilton County

| | 2006 | 2007 | 2008 |
|---|------|------|------|
| Potential dog exposures investigated | 651 | 653 | 544 |
| Total animal exposure investigations | 944 | 925 | 822 |
| Number of dogs vaccinated (approximation) | 64% | 56% | 54% |
| Number of cats vaccinated (approximation) | 22% | 20% | 21% |

In 2006, 3 bats tested positive for rabies. In 2007, 3 bats and 1 raccoon tested positive, and in 2008, 2 bats and 1 raccoon tested positive for rabies.

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