EPI Update for Friday, June 3, 2011
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **An increase in measles in the U.S.**
- ***E. coli* O104 in Europe**
- **Tick season is underway**
- **Ten greatest public health achievements 2001-2010**
- **Meeting announcements and training opportunities**

An increase in measles in the U.S.

During January 1 through May 20, 2011, a total of 118 cases of measles were reported in the U.S. This is the highest reported number of cases for the same period since 1996. Almost 90 percent of these cases were imported. This is related to increases in measles in countries visited by U.S. travelers. As long as measles remains endemic in the rest of the world, importations into the Western Hemisphere will continue. For an update on measles activity in the U.S. visit www.cdc.gov/mmwr/preview/mmwrhtml/mm6020a7.htm?s_cid=mm6020a7_w.

E. coli O104 in Europe

A large outbreak of Shiga toxin-producing *E. coli* (STEC) O104:H4 is occurring in Germany; approximately 2000 people are estimated have become ill and at least nine have died. To date, no cases of STEC O104:H4 infection have been reported to have been acquired in the U.S. Three cases of hemolytic uremic syndrome (HUS) have been reported in the U.S. in persons who recently traveled to Hamburg, Germany. A specific food has not been confirmed as the source of the infections and there is no information that any of the suspected foods have been shipped from Europe to the United States.

Travelers to Germany should be aware that the German public health authorities have recommended against eating raw lettuce, tomatoes or cucumbers, particularly in the northern states of Germany (Hamburg, Bremen, Lower Saxony, Schleswig Holstein).

Healthcare providers who identify patients with HUS or Shiga toxin-positive diarrheal illness and a history of recent travel to Germany are asked to contact public health immediately. The stool specimen should be sent to SHL for confirmation of Shiga toxin and isolation of any STEC.

Symptoms of STEC infection include severe stomach cramps, diarrhea (which is often bloody) and vomiting. If there is fever, it usually is not very high. Most people get better within five to seven days, but some patients go on to develop HUS, usually about a week after the diarrhea starts. The classic triad of findings in HUS is acute renal damage, microangiopathic hemolytic anemia (evidence of schistocytes and helmet cells on peripheral blood smear), and thrombocytopenia.

Antibiotics are not recommended for patients with suspected STEC infections until complete diagnostic testing can be performed and STEC infection is ruled out. Some studies have shown that administering antibiotics in patients with STEC infections might increase their risk of developing HUS. However, clinical decision making must be tailored to each individual patient. There may be indications for antibiotics in patients with severe intestinal inflammation if perforation is of concern. Of note, isolates of STEC O104:H4 from patients in Germany have demonstrated resistance to multiple antibiotics.

For more information on the outbreak, visit www.cdc.gov/media/releases/2011/s0601_ecoligermany.html?s_cid=2011_s0601_ecoligermany.

Tick season is underway

With outdoor activity season underway, Iowans are reminded to protect themselves against tick bites. Ticks can carry the organisms that cause Lyme disease, Rocky Mountain Spotted Fever, and Ehrlichiosis. The most common tick-borne disease reported in Iowa is Lyme disease; 78 cases of Lyme disease were reported to IDPH in 2010. Please remind patients to take the following precautions to prevent tick bites:

- Wear long-sleeved shirts and long, light-colored pants tucked into socks or boots.
- Stay on trails when walking or hiking, and avoid high grass.
- Use insect repellants that contain DEET. Read and follow the label directions for application. DEET is not recommended for use on children under 2 months of age.
- Check yourself, your children and your pets for ticks. Ticks tend to prefer the back of the knee, armpit, scalp, groin, and back of the neck.
- If you discover a tick on your body, remove it right away. Folk remedies, such as burning the tick with a match or covering it with petroleum jelly or nail polish, are not effective. The Centers for Disease Control and Prevention recommend the following instructions for removing a tick:
    - Carefully grasp the tick by using tweezers to grip the tick by its mouthparts which are close to the skin. Do not squeeze the tick's body.
    - Pull steadily directly away from your skin. Because removing the tick's body is your main goal, don't worry if its mouthparts break off in the process.
    - Clean the wound and disinfect the site of the bite.

For more information on Lyme disease, visit: www.idph.state.ia.us/idph_universalhelp/main.aspx?system=IdphEpiManual&context=Lyme_Disease_factsheet. The Iowa State University Medical Entomology laboratory conducts tick surveillance across the state and that surveillance data is available at www.ent.iastate.edu/medent/.

Ten greatest public health achievements 2001-2010

CDC has recently published a list of the top ten public health achievements during the first decade of the 21st century. Over the next ten weeks, we will highlight these achievements in the EPI Update. To preview the complete list now, visit www.cdc.gov/mmwr/preview/mmwrhtml/mm6019a5.htm?s_cid=mm6019a5_w.

> ***Achievement #1 – decline in vaccine-preventable diseases***
> The past decade has seen substantial declines in cases, hospitalizations, deaths, and healthcare costs associated with vaccine-preventable diseases. New vaccines (i.e., rotavirus, quadrivalent meningococcal conjugate, herpes zoster, pneumococcal conjugate, and human papillomavirus vaccines, as well as tetanus, diphtheria, and acellular pertussis vaccine for adults and adolescents) were introduced, bringing to 17 the number of diseases targeted by U.S. immunization policy.
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> A recent economic analysis indicated that vaccination of each U.S. birth cohort with the current recommended childhood immunizations prevents approximately 42,000 deaths and 20 million cases of disease, with net savings of nearly $14 billion in direct costs and $69 billion in total societal costs.

Meeting announcements and training opportunities
None

Have a healthy and happy week!
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