

EPI Update for Friday, July 13, 2007
Center for Acute Disease Epidemiology
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **West Nile virus and mosquito populations**
- **Importance of culture confirmation of Shiga-toxin producing *E. coli* (STEC)**
- **New guidelines for use of masks in health care settings**
- **Updated compendium on preventing disease associated with animals**
- **Chocolate study confirms positive health effect**
- **Meeting announcements and training opportunities**

West Nile virus and mosquito populations

This season's second human West Nile virus case has been diagnosed in a Story County resident. The middle-aged woman was hospitalized within the last month and is recovering.

Protective measures include:

- Using insect repellent with DEET, picaridin or oil of lemon eucalyptus. Check repellent label for correct use.
- Avoiding outdoor activities at dusk and dawn when mosquitoes are most active.
- Wearing long-sleeved shirts, pants, shoes, and socks whenever possible outdoors
- Eliminating standing water around the home because that's where mosquitoes lay eggs. Empty water from buckets, cans, pool covers and pet water dishes. Change water in bird baths every three to four days.

Mosquito surveillance performed by Iowa State University's Entomology Department consists of testing mosquitoes for viruses such as WNV, La Crosse encephalitis virus, eastern equine encephalitis virus, and St. Louis encephalitis virus.

ISU Entomology's Web site contains data from the Iowa mosquito surveillance program of the past 40 years. See www.iowa-mosquito.net.

Importance of culture confirmation of Shiga-toxin producing *E. coli* (STEC)

This past month, three cases of *E. coli* O26 have been reported in children under 5 years old in Iowa. Although non-O157 STEC infections are reportable, the true prevalence of *E. coli* O26 and other STEC in Iowa is not known due to the fact that most clinical laboratories do not have the capability for culturing or identifying these organisms.

The University Hygienic Laboratory routinely screens stools for STEC and looks for O157 and non-O157 STEC. From 2001 through 2006, the Hygienic Laboratory isolated 55 STECs from stools: Of these, 34 (62 percent) were serotypes other than O157; 11 (32 percent) of the non-O157 *E. coli* were serotype O26 (20 percent of total STEC isolated), highlighting the importance of screening all stools for their presence and including a culture.

Clinical laboratories should routinely include STEC in their bacterial enteric panel (along with *Salmonella*, *Shigella*, and *Campylobacter* spp.). This should be done by testing stool samples using an enrichment broth followed by EIA testing. If the stool sample is positive for STEC, the broth should be sent to UHL for culture of the pathogen, serotyping and Pulsed Field Gel Electrophoresis (DNA fingerprinting). See editorial note in www.cdc.gov/mmwr/preview/mmwrhtml/mm5538a3.htm.

New guidelines for use of masks in health care settings

Additional highlights from “Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings 2007” include:

Use of masks for insertion of catheters or injection of material into spinal or epidural spaces via lumbar puncture is now recommended. This recommendation comes from recent evidence of an associated risk for developing meningitis caused by respiratory flora.

For the complete document, refer to www.cdc.gov/ncidod/dhqp/pdf/guidelines/Isolation2007.pdf.

Updated compendium on preventing disease associated with animals

The “Compendium of Measures to Prevent Disease Associated with Animals in Public Settings” has been recently updated. The report contains recommendations for minimizing the risk of disease transmission at sites that encourage or permit public contact with animals (such as petting zoos). The recommendations may be helpful with planning for festivals, fairs, and summer events. See www.nasphv.org/Documents/AnimalsInPublicSettings.pdf.

Chocolate study confirms positive health effect

Sometimes a study comes along that brings pure joy to your heart.... A study recently published in JAMA (July 4, 2007, pages 49-60) showed that HABITUAL ingestion of dark chocolate will:

- Lower your blood pressure,
- Potentially lower the relative risk of dying from a stroke by 8 percent
- Potentially lower the relative risk of heart attacks by 5 percent
- Lower your risk of dying from anything by 4 percent

The authors states, “The most intriguing finding of this study is that small amounts of commercial cocoa confectionary convey a similar BP-lowering potential compared with comprehensive dietary modifications that have proven efficacy to reduce cardiovascular event rate. Thus the study’s authors suggest adoption of “SMALL AMOUNTS” of flavanol-rich cocoa (e.g., dark chocolate) into the habitual diet is a dietary modification that is easy to adhere to and therefore may be a promising behavioral approach to lower blood pressure.

This is one piece of dietary advice CADE staff plan to start adhering to immediately, however may have difficulty following the recommended dose!

Meeting announcements and training opportunities

None.

Have a healthy and happy week!
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