

“The door to the cabinet is to be opened using a minimum of 15 Kleenexes.”

Howard Hughes

The WISCONSIN EPI EXPRESS provides a regular update on communicable disease issues of importance in our state and is intended primarily for participants in the public health surveillance system. Please let us know if the topics covered are on target or if there are others that we should be addressing.

Thank you,

Jim Vergeront MD, Acting Director, Bureau of Communicable Diseases and Preparedness

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1. Refugee numbers declining

Predictions for the number of refugees arriving in Wisconsin are low for the second consecutive year. Estimates from Voluntary Resettlement Organizations (Volags) indicate that arrivals should be up slightly from 2006 but are well below previous years. Approximately 557 refugees are projected to arrive in 2007, compared to 2354 arrivals in 2004 and 1287 in 2005.

The preponderance of refugees expected in 2007 will arrive from East Asia (previously 2055 in 2004 and 1135 in 2005). While Hmong refugees were formerly the majority of arrivals from East Asia, Burmese will now comprise a notable portion. An estimated 150

refugees will arrive from Africa (previously ranging from 94-224). Finally, arrivals from Eastern Europe and the Former Soviet Union are projected to be 52, consistent with approximately 50 arrivals in previous years. These figures do not include the unknown number of recent refugees who migrate via other states and enter from overseas.

Health screening questions concerning arriving refugees should be directed to Savitri Tsering at 608-267-3733. Additional information is available on the Wisconsin Refugee Health Program website at URL

<http://dhfs.wisconsin.gov/international/refugee/resources.htm>

2. Health Works: About the Norovirus

Noroviruses (previously called "Norwalk-like" viruses) are a group of viruses that are the most common causes of acute gastroenteritis in humans of all ages. The Center for Disease Control (CDC) estimates that 23 million cases of norovirus infection occur in the U.S. annually, particularly during the winter months. In Wisconsin, we are currently seeing an increase in the number of cases of norovirus infection compared to previous years. To avoid becoming infected with this virus, it is important to understand how it is transmitted and to take the steps necessary to prevent infection.

The norovirus enters through the mouth, multiplies in the body, and is passed in the highly infectious stool or vomit of an infected person. If careful hand washing with soap is not done, the virus can be carried on an infected person's hands. Most food-borne outbreaks of norovirus arise through direct contamination of food by a food-worker immediately before its consumption. It takes only a few virus particles to cause infection, so one's hands need not be heavily soiled to transmit the virus. Outbreaks have also been associated with persons who have ingested drinking water or recreational water that may have been contaminated with sewage.

Symptoms typically begin 24 to 48 hours after ingestion of the virus and usually include nausea, vomiting, headaches, abdominal cramps, and watery, non-bloody diarrhea. Additionally, some persons may experience body aches, fever, sweats, chills, and fatigue. Duration of the illness is usually short, lasting from one to three days. Norovirus infections are not typically very serious: however, the very young, elderly, and persons with

weakened immune systems are at increased risk of serious dehydration requiring fluid replacement.

Because noroviruses are highly infectious, they can spread rapidly through day-care centers, nursing homes and other facilities. A person with norovirus infection is most contagious from the onset of symptoms to at least three days after recovery, although viral shedding may continue for up to two weeks following the resolution of symptoms.

Because there is no antiviral medication for norovirus infection, prevention is crucial. This requires thorough cleaning and sanitization. Noroviruses are relatively hardy, surviving dilute chlorine solutions, freezing temperatures, and heating to 140° F. To prevent person-to-person transmission, proper hand washing with plenty of soap and water is recommended. This is particularly important after using the bathroom and before food preparation.

A solution of chlorine bleach is the best disinfectant to clean surfaces. The following strengths of chlorine bleach are recommended, freshly prepared daily and left on the surface for 10-20 minutes, then rinsed with water:

- 1:50 dilution (1 part bleach: 50 parts water) for non-porous surfaces such as tile floors, countertops, sinks, toilets, and doorknobs
- 1:10 dilution (1 part bleach: 10 parts water) for porous surfaces and wooden floors

Contributed by Seema Untawale PhD, Bureau of Communicable Diseases and Preparedness, CDES

3. Norovirus Surveillance in Wisconsin, 2002-2006

The Communicable Disease Epidemiology Section (CDES), Wisconsin Division of Public Health, began specific norovirus outbreak surveillance in 2002. Improved techniques for characterization and detection of norovirus have improved surveillance of this pathogen. This provides a greater understanding of epidemiologic trends associated with the virus, permitting the documentation of an increase in

the number of outbreaks and cases reported in 2006, as well as the identification of variations in the location and chronology of these outbreaks.

Norovirus-related disease is not a reportable condition, but outbreaks of the disease are reportable. Outbreaks are divided into two categories: foodborne (FBO), which are

reportable to CDC, and non-foodborne (non-FBO), which are not currently reportable to CDC but will be in the future. A FBO occurs when individuals become ill after ingesting contaminated food, usually involving a specific facility or event. A non-FBO occurs when individuals become ill due to either contact from a contaminated environment or direct contact with another ill individual.

During 2002 through 2006, the number and proportion of all gastrointestinal disease outbreaks increased from 63 reported outbreaks (47 FBO and 16 non-FBO) in 2004 and 41 reported outbreaks (13 FBO and 28 non-FBO) in 2005 to 116 (37 FBO and 79 non-FBO) reported outbreaks in 2006. In 2006, 86 (78%) of the 116 outbreaks investigated were caused by noroviruses that cumulatively involved 2902 case illnesses, 65 hospitalizations and three deaths. In 2005 only 17 (41%) of 41 gastrointestinal outbreaks were caused by noroviruses.

During 2006 the peak months of reported norovirus related outbreak occurrence were April through December. Generally, the most frequently identified settings of norovirus outbreaks occurrence are long-term care facilities (LTCFs), restaurants, hospitals, schools, and camps. In Wisconsin in 2006, available data among 63 of the norovirus related outbreak investigations demonstrated approximately 74% of 2617 cases occurred in

LTCFs (markedly greater than in previous years), 18% were associated with restaurant acquisition and 9% were associated with hospital related acquisition. No reported outbreaks in 2006 involved school settings. Of note, in 2005, 82% of 491 outbreak related cases involved school settings.

While norovirus transmission occurs as a result of eating contaminated food and drinking contaminated water, most cases involve person-to-person transmission and fecal-oral spread of virus.

Laboratory diagnosis of norovirus infection involves testing stool samples using reverse transcription PCR assay. Because this assay is most sensitive early in the course of the illness when higher amounts of virus are being shed in the stool, samples should be collected within 5-days from symptom onset for optimal results.

All outbreaks of gastrointestinal illness should be reported to John Archer (608-297-9009) at the CDES, Division of Public Health. The DPH staff is authorized to approve fee-exempt testing of a limited number of outbreak-related specimens.

Contributed by Patrick McKenna, Medical Student Intern with the Division of Public Health & Diep Hoang Johnson, Epidemiologist, Bureau of Communicable Diseases and Preparedness, CDES

4. Cumulative Wisconsin HIV Case Surveillance Data Posted on Web

A comprehensive review of Wisconsin HIV case surveillance data reported through 2006 has been posted on the Wisconsin AIDS/HIV Program website <http://dhfs.wisconsin.gov/aids-hiv/Stats/index.htm>

There are two cumulative surveillance reports, one containing a comprehensive narrative analysis of Wisconsin's HIV epidemiologic

trends through 2006 and a comparable report with extensive tables and figures summarizing select HIV demographic data. Downloadable slides reviewing Wisconsin HIV case surveillance data through 2006 are also available from this website. The slides are available in PDF and PowerPoint formats.

5. Wisconsin AIDS/HIV Update (Spring 2007) Posted on Web

The quarterly publication of the Wisconsin AIDS/HIV Program, *Wisconsin AIDS/HIV Update* (Spring-2007 edition) is posted at <http://dhfs.wisconsin.gov/aids-hiv/Update/index.htm>

A PDF version is available at <http://dhfs.wisconsin.gov/aids-hiv/Update/Spring2007Update.pdf>

Persons who subscribe to the *AIDS/HIV Update* listserv are notified via email as new *Update* issues are posted. Sign up at <http://dhfs.wisconsin.gov/aids-hiv/Signup/index.htm>

6. State Hygiene Lab Recognized For Outstanding Response

For the second time, the Wisconsin State Laboratory of Hygiene (WSLH) received a PulseNet PulseStar award from the Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories. This national award is given for exceptional contributions to foodborne disease surveillance and outbreak response.

This year's award was given to the WSLH for work on the recent nationwide outbreak of *E. coli* O157:H7 infections associated with spinach outbreak, the nationwide outbreak of

Salmonella infections associated with peanut butter, and a large outbreak of Campylobacter infections in northern Wisconsin associated with cheese curds. .

Tim Monson, WSLH Food and Waterborne Disease Program Manager, accepted the award during the annual PulseNet conference on behalf of the staff in the WSLH Pulse-Field Gel Electrophoresis laboratory.

For more information contact: Jessica Burda at 608-890-0103 or burdajd@mail.slh.wisc.edu

7. Updated Fee-Exempt Testing Guidelines Available

The Wisconsin State Laboratory of Hygiene (WSLH) performs testing at no charge (fee exempt) to local health departments and state agencies, when the testing falls within the public health mission of the Laboratory (as determined by the WSLH Board and within guidelines established by the Division of Public Health). The WSLH conducts roughly 130,000-150,000 fee-exempt tests annually. The WSLH provides a wide range of infectious disease testing as well as public health

environmental/industrial and clinical testing services for state and local governments. Because of frequent changes in laboratory testing procedures and the continuing emergence of new pathogens of public health significance, the Division of Public Health maintains a listing of them on its website at <http://dhfs.wisconsin.gov/communicable/resources/pdffiles/FeeExemptWSLH032007.pdf> where they can be easily updated as needed.

8. Please Visit the Website of the Wisconsin Antibiotic Resistance Network

The Wisconsin Antibiotic Resistance Network (WARN) is a coalition of Wisconsin health care providers, professional organizations, and public health agencies who are concerned about antibiotic resistance and inappropriate antibiotic use. The Network has a website maintained by the Marshfield Clinic Center for Community Outreach that contains a variety of current and useful information for both healthcare consumers and providers. The website also has a link to the website of the

Antimicrobial Resistance Education Alliance (AREA), a collaborative effort between the University of Wisconsin School of Medicine and Public Health, CME Enterprise, WARN, and Healthcare Performance Consulting. AREA is a nationwide continuing medical education (CME) initiative providing education for healthcare providers across the country on appropriate use of antibiotics in inpatient settings. For information on WARN: info@warnwisconsin.org (715-221-8416)

9. CDC Data Released:

Gonorrhea Drug Resistance Spurs New National Treatment Recommendations

In support of recent changes in recommendations from the Centers for Disease Control and Prevention (CDC), the Wisconsin Division of Public Health (DPH) no longer recommends antibiotics known as fluoroquinolones (e.g., ciprofloxacin, ofloxacin, and levofloxacin) for treating gonorrhea in Wisconsin. This limits the options available to treat gonorrhea, a sexually transmitted disease (STD), and the second most commonly reported of all communicable diseases

The recommendation follows new data released in the April 13th edition of CDC's *Morbidity and Mortality Weekly Report (MMWR)* demonstrating that fluoroquinolone-resistant gonorrhea is now widespread in the United States and the proportion of drug-resistant cases among all cases of gonorrhea occurring in heterosexuals exceeds the threshold of 5 percent that consequently results in a change in the treatment recommendations.

Nationwide, data from the CDC's Gonococcal Isolate Surveillance Project (GISP) in 26 U.S. cities demonstrate that among heterosexual men, the proportion of gonorrhea cases caused by fluoroquinolone-resistant *Neisseria gonorrhoeae* reached 6.7 percent in the first

half of 2006, an 11-fold increase from 0.6 percent in 2001.

The DPH recommends that Wisconsin health care providers follow the newly issued CDC recommendations. The total number of gonorrhea infections (non-resistant and resistant strains combined) reported in Wisconsin during 2006 represents a 34% increase compared to the number of cases reported in 2004. Though resistant gonorrhea accounts for only 0.5% of the total gonorrhea cases reported in Wisconsin in 2006, this proportion is about 3 times higher than the proportion of resistant gonorrhea reported in 2004. In 2005, Wisconsin ranked 21st highest among states in number of gonorrhea cases (5,869), and Milwaukee ranked ninth highest among major U.S. counties and independent cities.

The majority of urethral infections caused by gonorrhea in men produce symptoms that cause them to seek curative treatment soon enough to prevent serious sequelae. But in women, gonorrhea often occurs without symptoms and can result in complications such as pelvic inflammatory disease, infertility and ectopic pregnancy.

See web pages listed below and CDC attachments.

<http://www.cdc.gov/std/>

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5614a3.htm>

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5610a4.htm?s_cid=mm5610a4_e

For more information contact Loriann Wunder at 608-266-7922 wundels@dhfs.state.wi.us

10. National HIV Testing Day 2007

National HIV Testing Day, observed on June 27, is an annual campaign sponsored by the National Association of People with AIDS. National HIV Testing Day encourages persons at risk of HIV infection to undergo voluntary HIV

counseling and testing. Agencies interested in resource materials for National HIV Testing Day can view and download information at http://hivtest.org/press_files/subindex.cfm.

The following health messages can assist local communities in promoting National HIV Testing Day:

HIV disease is a serious public health problem in Wisconsin. Approximately 8,000 Wisconsin residents are estimated to be living with HIV infection and approximately 2,000 (25%) of these residents are unaware they are infected. Up to two-thirds of new HIV infections occur as a result of persons not knowing they are infected and unintentionally passing HIV to someone else. HIV testing is important because early medical care can delay the complications of HIV disease and because most persons who know they are infected take steps to reduce the risk of transmitting HIV to others.

Individuals who may be at risk for HIV infection and who can benefit from HIV testing include:

- *Persons who had unprotected sex with someone with HIV infection.*
- *Persons who had unprotected sex with men who have sex with men.*
- *Persons who injected drugs or shared injection equipment (such as needles, syringes, cotton, water) with others.*
- *Persons who have been diagnosed with or treated for hepatitis B or C, tuberculosis (TB), or a sexually transmitted disease (STD) like syphilis or gonorrhea.*
- *Persons who exchanged sex for drugs or money.*
- *Persons who received a blood transfusion or clotting factor between 1978 and 1985.*
- *Persons who had unprotected sex, especially with anyone who is part of the risk groups listed above.*

Because HIV medications can lower the risk of a pregnant women with HIV infection passing HIV to her fetus or newborn, prenatal care providers recommend that all pregnant women receive HIV testing early in pregnancy and again later in pregnancy if they continue to have HIV risks.

In addition, the federal Centers for Disease Control and Prevention recently recommended that all persons age 13-64 years undergo HIV testing as a routine part of their health care and in a manner similar to the way health care providers screen for other health conditions.

For information on National HIV Testing Day, visit the National HIV Testing Day website at <http://www.hivtest.org/>. If you are at risk, talk to your health care provider about testing or, to locate HIV testing resources in Wisconsin, visit the website of the Wisconsin HIV/STD/Hepatitis C Information and Referral Center at www.irc-wisconsin.org or phone the Information and Referral Center toll-free at 800-334-2437

Telephone Reporting of Unusual Disease Occurrences

Occurrences of diseases uncommon or atypical in Wisconsin and identified outbreaks or clusters of disease should be reported by phone, as soon as possible, to 608-258-0099. Reports may be made to this number on a 24/7 basis, but please do not use this number for normal and routine disease reporting.

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