

February, 2008: A Drop of News from the Waterborne Disease Surveillance Team in the Division of Parasitic Diseases



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Greetings

Welcome to A Drop of News- a forum for state and local waterborne disease surveillance activities, as well as informal updates from the Centers for Disease Control and Prevention (CDC) about waterborne disease and outbreak surveillance initiatives.

In this issue, you will find a description of the revised fecal accident response recommendations for swimming pools; an update about the MMWR Surveillance Summary for 2005-2006 data as well as a summary of the Environmental Health Specialists Network (EHS-Net) program that includes program contact information and an article from the very first state to join the program. We are very excited to bring you information about the National Outbreak and Reporting System (NORS), a web-based electronic reporting system derived from eFORS that will allow waterborne, foodborne and enteric person-to-person disease outbreaks to be captured within one system. NORS, which is being developed through a collaboration between the Council for State and Territorial Epidemiologists (CSTE), CDC and the Environmental Protection Agency (EPA), is currently scheduled to launch this summer. Training and guidance will be made available in the coming months, and we will be looking for feedback from you during and after the transition period.

Please forward questions, content (e.g. bullet points, photographs, brief articles) and suggestions regarding your needs for this newsletter to Virginia Roberts at evl1@cdc.gov . We encourage you to share this newsletter with other waterborne disease investigators; provide feedback about content you would like to see in future newsletters; and send in updates about your recent waterborne disease activities and accomplishments that we may share in the next newsletter.

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Figure 2 Dr. Sharon Roy - Epidemiologist- Drinking water E: str2@cdc.gov P: 770.488.4412



Figure 3 Michele Hlavsa - Epidemiologist-Recreational water E: acz3@cdc.gov P: 770.488.7787



Figure 4 Jonathan Yoder - Surveillance Coordinator E: jev9@cdc.gov P: 770.488.3602



Figure 5 Virginia Roberts - Surveillance Epidemiologist E: evl1@cdc.gov P: 770.488.7560



Figure 6 Lauren Stockman - Epidemiologist E: bgu8@cdc.gov P: 770.488.7683



Actions and Alerts

The **fecal accident response recommendations** for treated recreational venues have been revised and posted on CDC's Healthy Swimming web site at http://www.cdc.gov/healthyswimming/pdf/Fecal_Accident_Response_Recommendations_for_Pool_Staff.pdf . New data indicate that the recommended contact time (CT) inactivation value is higher when inactivation is measured at a higher pH using an outbreak-associated *Cryptosporidium* isolate (The CT number refers to the concentration (C) of free chlorine in mg/L (or parts per million) chlorine multiplied by time (T) in minutes at a specific pH and temperature (see example calculations in revised recommendations). As a result, the CT number used in the fecal accident guidance for 99.9% inactivation of *Cryptosporidium* has changed from 9,600 mg/L to 15,300 mg/L (At pH 7.2–7.5, 77°F [25°C]). This change translates into longer swimming pool closures to ensure inactivation of *Cryptosporidium*.

Also, please help us to connect the general public with **Healthy Swimming resources** in your state by checking the web links and documents before the next recreational water season begins. The state resources web page at <http://www.cdc.gov/healthyswimming/state.htm> links to information on state-specific pool codes, RWIs, and local public health authorities. Email Michele Hlavsa at acz3@cdc.gov if you would like us to make changes or add new information for your state. We would like to create a similar web page to link the general public with **state drinking water resources**. Please contact Sharon Roy at str2@cdc.gov if you have web links or documents that you would like us to incorporate into the page.

Mark your Calendars!

National Ground Water Awareness Week: March 9-15

World Day for Water: March 22

National Drinking Water Week: May 4-10

Recreational Water Illness Prevention Week: May 19-25

National outbreak reporting system (NORS)

Building a Better Outbreak Reporting System

The Waterborne Disease & Outbreak Surveillance System (WBDOSS) is the result of successful collaboration between CSTE, CDC, and EPA. The WBDOSS is a paper-based system that was initiated in 1971 to collect data on waterborne diseases in the United States and Territories.

The Waterborne Disease Surveillance Team has been working with our state and territorial partners through CSTE to improve waterborne surveillance without increasing the reporting burden. We are currently developing an electronic reporting system and a corresponding paper form based on feedback from state/territorial partners, trends in waterborne disease, and the approved CSTE position statement titled "Improving Detection, Investigation, and Reporting of Waterborne Disease Outbreaks." (available at <http://www.cste.org/PS/2006pdfs/PSFINAL2006/06-ID-12FINAL.pdf>) Implementation of the electronic system will require training and technical support, as well as collaboration with partners at CDC and waterborne surveillance coordinators in every participating state.

The National Outbreak Reporting System (NORS) will replace both the WBD OSS and the Electronic Foodborne Outbreak Reporting System (eFORS). The waterborne disease component will better capture the broad array of causes and factors associated with waterborne and water-related diseases in the United States. Users will ultimately be able to access historical waterborne outbreak reports and data directly from the electronic system. NORS will also be able to capture information about other enteric disease outbreaks, such as those that stem from zoonotic transmission (petting zoos, fairs, etc.), person-to-person transmission and environmental transmission in hospitals, daycare facilities, and conveyances (e.g., cruise ships and planes).

We believe that the upcoming changes will enable more timely and accurate reporting of waterborne diseases; facilitate better access to data for state, local and federal partners; and lead to more effective public health control measures.

Reporting Burden

Although we do not believe that the reporting burden for the states will increase, the new reporting system will have more fields than the current waterborne outbreak reporting form (CDC 52.12) so the corresponding paper form will have more pages. We have added several variables to NORS in response to multiple written comments on the existing form that demonstrated that our variables were not inclusive enough to capture the full spectrum of waterborne outbreaks. The main reason for the additional pages is that we used state feedback on the CDC 52.12 form to create separate sections for the four main water venues (recreational- treated water, recreational- untreated water, drinking water, water not intended for drinking/water of unknown intent). A brief General section is followed by a General-Water section. Once you select the water venue in the General-Water section, you will only be asked to fill out the pages for water venue you have selected. To make the process more flexible, there are only two required fields in the electronic General section and no required variables in the water-only sections. The required fields are 'Date first case became ill' and 'Reporting state'

The next page shows you what the first part of the General section will look like for NORS. There will be more resources for NORS—including training and support services—in the coming months. We will also be showing more of the electronic pages. The paper reporting form will be very similar to the electronic reporting system, except that it will not be able to incorporate some of the technical elements (e.g. drop-down lists). For more information about how the WBD OSS paper form (CDC Form 52.12) and NORS will compare, see the supplement to this newsletter, titled 'Data fields- CDC 52.12 and NORS.'

Note: Please continue to use the CDC 52.12 form to report waterborne disease outbreaks until advised differently.

Figure 7 A draft of the first reporting screen for NORS

The screenshot shows the NORS reporting interface. At the top, there's a navigation bar with 'Reports', 'Download', 'Admin', 'Help', and 'Logout'. Below that, there are fields for 'State ID', 'OR-TERR', 'CDC ID', 'Report Status', and 'Attach'. A dropdown menu is set to 'Water-General'. The 'Primary Mode of Transmission' section has a dropdown menu. The 'Investigating Methods' section has checkboxes for 'Case-control study', 'Cohort study', and 'Cross-sectional study'. The 'Comments' section contains several date fields: 'Date first case because of' (08/20/2007), 'Date last case because of' (08/20/2007), 'Date of initial exposure' (08/20/2007), 'Date of last exposure' (08/20/2007), 'Date of report to CDC (within 14 days)' (08/20/2007), and 'Date of notification to State/Territory or Local Health' (08/20/2007).

Morbidity and Mortality Weekly Report (MMWR): 2005-2006 Surveillance Summary

The Waterborne Disease Surveillance Team is currently writing the next MMWR Surveillance Summary for waterborne disease and outbreaks based on data reported for 2005-2006. In an effort to provide waterborne disease and outbreak information in a more timely fashion and at a more useful advocacy time, the target publication date for this Surveillance Summary has been moved from the winter to the summer of 2008—the time period during which the majority of waterborne disease outbreaks occur.

Each state waterborne coordinator was sent a draft document in January with tables listing the outbreaks received by CDC and included in the Surveillance Summary based on evidence of disease transmission involving water. If you have questions or corrections related to the recreational and drinking water data included for your state, please contact Jonathan Yoder at je9@cdc.gov as soon as possible.

The 2005-2006 Surveillance Summary will follow a format similar to the 2003-2004 Surveillance Summary (December 22, 2006/Vol. 55/No. SS-12); however, a new category of aquatics facility-associated events that are not associated with water will be included. This category will capture events that have been voluntarily reported to WBD OSS, such as chemical mixings (e.g. bleach and hydrochloric acid) that produce chlorine gas plumes at aquatic facility properties.

Environmental Health Specialists Network (EHS-Net)

Environmental Health Specialists-Net (EHS-Net) is a collaborative forum of environmental health specialists whose mission is to improve environmental health. These specialists collaborate with epidemiologists and laboratorians to identify and prevent environmental factors contributing to foodborne and waterborne illness and disease outbreaks. EHS-Net Food was established in 2000 with funds from the Centers for Disease Control and Prevention/National Center for Environmental Health/Environmental Health Services Branch (CDC/NCEH/EHSB) and the U. S. Food and Drug Administration (FDA) and currently has nine participating state sites. EHS-Net Water was piloted in 2005 through CDC and EPA funds that supported a new staff member in five states to focus specifically on waterborne disease investigations. Initial surveys by three of the five funded sites have uncovered at least 72 outbreaks or health events previously unreported to CDC. New outbreak detection also appears to be increased following these surveys. Additional projects are underway to improve the practice of environmental health service programs; translate the findings into improved prevention efforts; offer training opportunities to current and

future environmental health specialists; and strengthen the relations among epidemiology, laboratory, and environmental health programs. (continued on page 4, see Spotlight and contact information)

EHS-Net Water: SPOTLIGHT ON NEW YORK

In 2005, the New York State Department of Health (NYSDOH) became the first EHS-Net state to hire a full-time employee to coordinate the EHS-Net Water pilot project. The EHS-Net Water Coordinator contacted several NYSDOH staff, including the Bureau of Communicable Disease Control. Several databases were searched for drinking water outbreaks that may have been investigated (1980-2006). These outbreaks were then reported to the EHS-Net Coordinator using the Waterborne Disease Outbreak Report form (CDC 52.12). Regional, district and local offices were also contacted to determine if any staff members had records of waterborne disease outbreaks that may not have been reported to CDC. This process was noted to have improved communication among staff working in the areas of Epidemiology, Laboratory, and Environmental Health.

As a result of the EHS-Net pilot project, six previously unreported drinking water outbreaks (1978-2002) and recent finalized waterborne outbreak reports (2003-2004) were included in the MMWR Surveillance Summary for 2003-2004 waterborne disease data (December 22, 2006/55/SS-12). More than 50 additional reports will be included in the MMWR Surveillance Summary for 2005-2006 data as waterborne disease and outbreak reports associated with recreational water that were previously unreported (1978-2002) or aquatics facility-related health events (1983-2006).

Results were shared with EHS-Net participants on conference calls and through a presentation given at the 2007 EHS-Net Water Vision Meeting. Other EHS-Net Water states have since used similar procedures to improve waterborne disease outbreak reporting in their states.

Contact EHS-Net

For more information about the EHS-Net program and current projects, contact:
EHS-Net, Environmental Health Services Branch, Centers for Disease Control and Prevention,
4770 Buford Highway, MS F-28, Atlanta, GA 30341-3717 **Telephone:** 770-488-7476 **E-mail:**
ehsb@cdc.gov **Web:** <http://www.cdc.gov/nceh/ehs/EHSNet/>

For environmental public health questions and technical assistance, you may also contact:
In English, en Espanol, 24 Hours/Day, 7 Days/Week, CDC Contact Center:
Telephone: 1-800-CDC-INFO (1-800-232-4636), 1-888-232-6348 (TTY) **E-mail:**
cdcinfo@cdc.gov

Contacts

CDC is available to provide assistance regarding waterborne outbreaks and illnesses. Please contact us to report an outbreak or to request information about waterborne illnesses related to drinking water, recreational water and other water venues. State Health Departments can also contact CDC to obtain epidemic and laboratory assistance for waterborne outbreak investigations. Additional resources are available for recreational water inquiries and outbreaks involving *Legionella*.

Telephone

770.488.7775 (staffed Monday-Friday)

Fax

770.488.7761

Mail

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Division of Parasitic Diseases, NCZVED, CDC, MS F-22
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CDC Reporting Form (CDC 52.12, rev 01/2003):

http://www.cdc.gov/healthyswimming/downloads/cdc_5212_waterborne.pdf

Recreational Water- Online Resources:

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

RWI Outbreak Response Toolkit:

http://www.cdc.gov/healthyswimming/rwi_outbreak.htm

Legionella:

[Editor's note: contact info edited, 06/2009]

All travel-associated Legionnaires' disease cases should be reported directly to the *Legionella* team by emailing travellegionella@cdc.gov or by sending a completed Legionellosis case report form within the seven days following state notification to CDC 1600 Clifton Road MS C-23 Atlanta, GA 30333, Attn: *Legionella* Team. **All Legionellosis cases and outbreaks that are not associated with travel** may be reported by sending completed case report forms to the above address within one month of state notification or as soon as possible thereafter. Case report forms and *Legionella* information can be found at <http://www.cdc.gov/legionella>. **Contact for additional questions, including assistance with outbreak investigations:** travellegionella@cdc.gov, 1-800-CDC-INFO (1-800-232-4636).

Please also submit the CDC 52.12 form and/or a summary report (see contact information at left) when the Legionellosis outbreak investigation has been completed.

Please contact Virginia Roberts at evl1@cdc.gov to submit content or suggestions for *A Drop of News*