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# Tennessee *epi-news*

TENNESSEE DEPARTMENT OF HEALTH  
COMMISSIONER SUSAN R. COOPER, MSN, RN

## Acinetobacter in Healthcare Settings

*Acinetobacter* is a group of bacteria commonly found in soil and water, as well as on the skin of healthy people including healthcare personnel. *A. baumannii* accounts for about 80% of reported *Acinetobacter* infections. Outbreaks may occur in intensive care units and among other very ill patients, such as burn and trauma cases, but the infections rarely occur outside healthcare settings. Additionally, *Acinetobacter* has received publicity as a source of wound infection in military and field hospitals.

*Acinetobacter* may cause pneumonia, septicemia, or wound infections. Some patients may become carriers without showing signs or symptoms, especially at tracheostomy sites or in open wounds. If *Acinetobacter* is suspected in a draining

wound, an occlusive dressing should be used.

*Acinetobacter* poses little risk to healthy people; however, those with weakened immune systems, chronic lung disease, or diabetes are more susceptible to infection. Emergence of infection is partly a result of the increase in ability to treat very ill patients, involving more frequent use of immunosuppressive medications and broad-spectrum antibiotics, and longer hospital stays.

*Acinetobacter* is often resistant to antibiotics, and overuse of broad-spectrum antibiotics may be a factor in this resistance. Nearly half of *Acinetobacter*-induced pneumonias are multi-drug-resistant,

*(Continued on page 2)*



## Pets, Poop and Public Health

Recently my dogs Norbert and Dudley met a friend's one month-old baby, Nora. Their tails wagged double-time as the little dogs met their first tiny person, and Nora laughed when they licked her toes. Children and dogs often get along so well that we forget furry companions can sometimes put them at risk for certain diseases such as parasitic infections. Young children are likely candidates for these types of infections because they often play outdoors, are frequently in close contact with pets, tend to put their hands in their mouths more frequently than adults, and are sometimes less careful about hygiene than adults.

Both cats and dogs can pick up parasites from eating infected wildlife and from exposure to parasites shed by other pets. Primary care physicians can help prevent such issues by encouraging patients to have their pets tested and de-wormed on a regular basis. Patients should also be educated that children may be at risk for acquiring parasites if they walk barefoot or play in areas that are contaminated with dog or cat feces. Once infected, children may expel large numbers of parasites and/or eggs in the stool, resulting in potential transmission to family members.

Hookworms cause irritating skin lesions where larvae have burrowed into the cutaneous tissue (Cutaneous Larval Migrants, CLM). Infected people may also experience digestive upset when parasites mature in the intestine. Hookworms infect persons who come in contact with contaminated dog or cat feces, persons who go barefoot in contaminated sand or soil, or persons whose work requires them to lie on the ground. The CLM lesions generally resolve within several weeks to months.

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## Acinetobacter in Healthcare Settings (continued)

(Continued from page 1)

meaning that they have resistance to beta-lactams, quinolones, aminoglycosides, and carbapenems. In a recent national CDC study, 74% of multi-drug-resistant isolates were from the Northeastern United States, and 13% were from the South. The remaining isolates were from the West and Midwest. Treatment decisions should be made on a case-by-case basis by a health-

care provider.

*Acinetobacter* can live on surfaces or in the environment for several days and can be spread by contact with contaminated surfaces. Careful attention to infection control procedures such as hand hygiene and environmental cleaning can reduce the risk of transmission. Thorough cleaning is critical. One hospital environmental study detected *Acinetobacter* on hospital beds and bed-

rails, sink counters, patient monitors, and IV poles. Meticulous infection control and attention to environmental cleaning can help prevent environmental contamination. You may contact Dr. Marion Kainer at 615-741-7247 for infection control advice. Please note that all outbreaks, including outbreaks of *Acinetobacter* are reportable to the Tennessee Department of Health. — by Alice Green, DVM, MS ❖

## Pets, Poop and Public Health (continued)

(Continued from page 1)

Another common class of parasite is the roundworm, whose larvae can migrate through and encyst in body tissues causing allergic responses and tissue damage. Clinical signs may include fever, cough, and a rash (Visceral Larva Migrans, VLM). The eye is a known site for parasite migration, resulting in partial vision loss or blindness (Ocular Larva Migrans, OLM). Roundworm eggs are frequently found in

contaminated soil and unwashed fruits and vegetables.

Important preventive measures to emphasize include practicing good personal hygiene, controlling pet parasite infections through testing and treatment, minimizing exposure of children to potentially contaminated environments, and cleaning up pet feces regularly to reduce environmental contamination with infective parasite stages. — by Alice Green, DVM, MS ❖



## Crypto Alert: Increasing Reports of Crypto Cases and Outbreaks

Crypto cases are on the rise!

Cryptosporidiosis, more commonly known as “Crypto,” was first associated with an outbreak of recreational water illness (RWI) in 1988. This RWI has been a public health issue in the past and will likely pose an even bigger challenge in the future. The number of Crypto cases reported to the Centers for Disease Control and Prevention (CDC) has risen substantially in recent years. In 2005, 2006, and 2007 the number of non-outbreak-related Crypto cases rose 41%, 24%, and 66%,

respectively (Figure 1). In 2006 and 2007 considerable increases in the number of outbreaks associated with treated venues, such as pools and recreational water parks, were also reported to the CDC (Figure 2).

Why is this happening?

A combination of factors may be contributing to these increases. Healthcare providers may be testing more for Crypto in patients with diarrhea since Alinia (nitazoxanide) was approved in 2005 to treat Crypto in patients 12 months and

older.

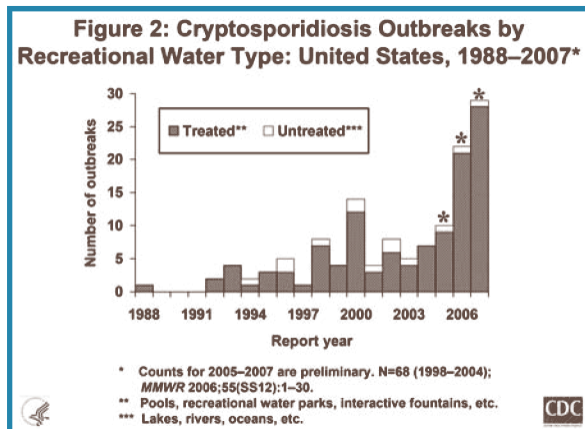
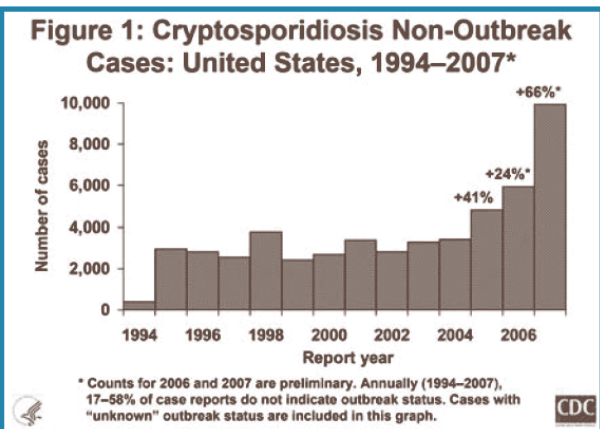
Heightened awareness about the disease may also have caused swimmers, healthcare providers, and health departments to think about where a person recently swam rather than the last place he or she ate. Another possibility could be that increases in the number of cases detected by state Crypto surveillance systems have increased the likelihood that the cases will be investigated and more outbreaks will be identified. Finally, Crypto may be spreading through various parts of the country. It

is unknown how much of the observed increases in reports of Crypto cases and outbreaks is attributable to each of these factors.

How can you help?

Collaborate and communicate with community partners (e.g., pool operators and child care

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## Crypto Alert: Increasing Reports of Crypto Cases and Outbreaks (continued)

(Continued from page 2)

centers) to ensure that they are aware of RWIs and prevention strategies related to waterborne illnesses. This works best if health departments build a communication network with community partners and other regional (state and local) health departments prior to an outbreak to enable a rapid response when Crypto case reports begin to rise or an outbreak is detected.

Remember that during an outbreak, prevention messages may be most effective if delivered early, even if the outbreak source has not been confirmed yet, so that partners can act. Together, health professionals and community partners share the responsibility of informing and educating the public. All parties involved should work together to bring the public on board with the basics of healthy swimming behaviors (i.e., don't swim when ill with diarrhea;

stop water activities at child care centers during outbreaks; practice good hygiene; etc.). RWI Prevention Week 2008 (May 19–25, 2008) is a great time to start this effort. You can find additional information at <http://www.cdc.gov/healthyswimming>. — by Centers for Disease Control and Prevention Staff ❖

## SPOTLIGHT: Dr. Donna Garland Robbins



Dr. Donna Garland Robbins began her public health career in 1980 as a dental hygienist, health educator and hypertension program coordinator at the Sullivan County

Health Department in Blountville, Tennessee. Dr. Robbins earned her MPH at East Tennessee State University and her DrPH at UAB School of Public Health, Epidemi-

ology (Cardiovascular Disease Research). Hired by the Tennessee Department of Health in March 2002, as one of the first regional epidemiologists in the Northeast Region, Dr. Robbins developed a syndromic surveillance system for seven counties and has presented several local, regional and national/international papers and poster sessions on the region's syndromic surveillance program.

Dr. Robbins is also an adjunct faculty member with the ETSU Department of Public Health and teaches undergraduate and graduate epidemiology courses. She is

a member of the Mountain Empire Epidemiologic Task Force for East Tennessee and Southwest Virginia. She is a licensed dental hygienist.

Born in Johnson City, Dr. Robbins has remained a lifelong resident of Northeast Tennessee and currently lives in Limestone with her husband Steve. She enjoys swimming and other physical fitness activities, reading, crossword and Sudoku puzzles, and spending time at home "in the country" with her husband and cats and dogs. — by David Brumley, DDS, MPH ❖

## Buckle Up for the Influenza ("Flu") Vaccine

Everyone knows how important it is to buckle up before driving a car even though a seat belt can't completely prevent harm in all situations. Getting vaccinated for the flu each fall is a lot like buckling your seat belt for the season ahead. Influenza vaccine is not perfect, but it often is 70-90% effective at protecting healthy recipients against the flu.

The 2007-2008 flu vaccine was helpful, but not ideal. While it was well matched to the influenza A H1N1 strain that dominated in many parts of the country early in the season, the influenza A H3N2 strain that dominated in Tennessee was only partially matched to the vaccine strain, resulting in somewhat reduced protection by the vaccine. The vaccine provided little protection against influenza B this season, because the influenza B strain was from an entirely different lineage (Yamagata) than the strain in the vaccine (Victoria). Fortu-

nately, influenza B virus typically causes milder illness and is less common than the well-matched influenza A strains.

The selection of strains for 2008-2009 was made by the FDA's Vaccines and Related Biological Products Advisory Committee (VRBPAC) on February 21, 2008, based on information from the 2007-2008 season. For the first time, VRBPAC chose to replace all three strains in the current vaccine. The new strains are an A/Brisbane/59/2007 (H1N1)-like virus; an A/Brisbane/10/2007 (H3N2)-like virus; and a B/Florida/4/2006-like (Yamagata lineage) virus. Although new for the U.S., both the H3N2 and the type B strains selected are already in the current Southern hemisphere vaccine. Manufacturers will begin the production process immediately, with new vaccine expected to begin arriving in September.



Despite the challenges and the unpredictability of seasonal influenza, vaccination is still the best protection every season, so don't forget to buckle up this fall! — by Kelly Moore, MD, MPH ❖

# When Disasters Strike: Unified Planning Coalition Responds



Following the severe hurricane seasons of 2004 and 2005, the need for interstate planning and pre-disaster collaboration was identified within the public health and medical emergency response systems.

The U.S. Department of Health and Human Services (HHS) Region IV, composed of eight Southeastern states, is located in one of the most disaster-prone regions of the country. Representatives from these states, including Tennessee, met in 2006 and formed the Region IV ESF8 Unified Planning Coalition (UPC), with a mission to use collaborative planning and resource-sharing to prepare for post-disaster public health and medical response. The other states in Region IV are Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina and South Carolina.

An important objective of the UPC is inventorying and typing (categorizing and describing) resources so that resource assistance requests from an impacted state can be appropriately and quickly met.

Members of the UPC also provide mutual (or state-to-state) aid for public health and medical services in a declared emergency. Member states agree to support one another in other situations as well through the activation of The Interstate Resource Coordinating Team (IRCT).

Members of the Tennessee Department of Health (TDH) play an integral role in the UPC. Joe Phillips (State EMS Director and ESF8 Lead) and Greg Galfano (Senior Planner for TDH's Public Health Emergency Preparedness Program) both serve on the UPC Executive Committee. During certain disasters Phillips will help staff the State Emergency Operations Center (SEOC), and Galfano will travel to the affected state's SEOC.

Finally, TDH is developing a pilot "Epidemiological Strike Team" for response to these emergencies. The goals of this deployable strike team are to provide surveillance and investigative capacity during outbreaks, disasters, and possible bioterrorism-related public health events in any of the Region IV states, and to coordinate with Disaster Medical Assistance Teams (DMATs), Environmental Health teams, and other agencies or resources to manage public health and emergency medical events. — by Darryl Edmisson, MS ❖

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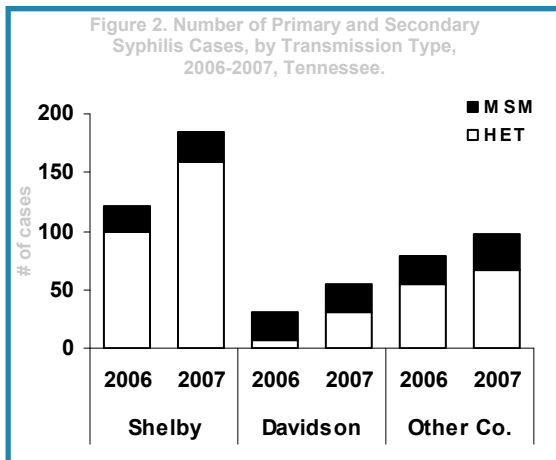
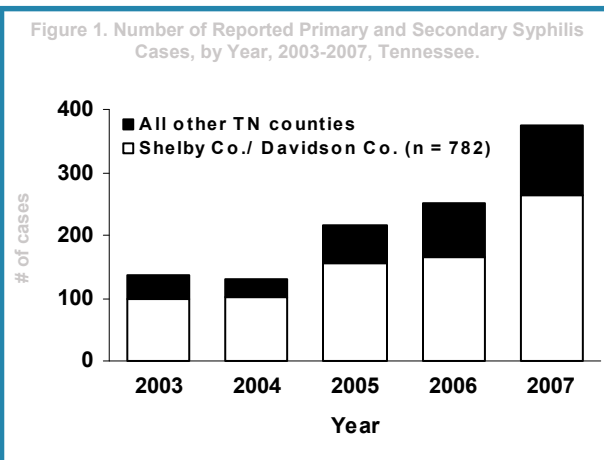
## Primary and Secondary Syphilis Trends

Recent trends suggest that primary and secondary (P&S) syphilis is rapidly increasing in Tennessee. P&S cases from the metropolitan areas of Davidson and Shelby Counties accounted for 782 (71%) of TN cases reported 2003–2007. Until recently, distinct population groups were affected in each of these two metropolitan areas; in

Davidson County, men who have sex with men (MSM) were primarily affected, and in Shelby County heterosexuals (HET) were the main group affected.

P&S syphilis cases in TN increased substantially from 135 cases in 2003 to 375 cases in 2007 (Figure 1). In Davidson

County, the increase in transmission among heterosexuals was striking, and cases among heterosexuals now represent 49% of total cases, up from 21% in 2003 (Figure 2). From 2005 to 2007, the rate among females rose from 2.1 per 10,000 population to 3.9. New cases among black females increased 90% (from 45 in 2005 to 86 in 2007).



Because of these population characteristics, prevention strategies should be specifically tailored to the needs of the impacted community, and public health authorities should monitor local surveillance data for changes in impacted communities. — by Shanell L. McGoy, MPH, and Jeselyn Rhodes, MSPH ❖

# Reporting of Notifiable Diseases

Tennessee law and Health Department regulations require that health authorities be notified of certain disease conditions and outbreaks. These are referred to as “notifiable diseases” and are reported to the state and local health departments by medical laboratories, hospitals, physicians, and others.

Laboratories are reliable sources for disease information, but sometimes require several days. This time lag may lead to delayed identification of an outbreak; additionally, clinical specimens may no longer be available for further characterization such as genetic fingerprinting at the state public health laboratory.

**Accurate and timely reporting from healthcare providers and hospitals is critical to early identification of disease clusters and public health threats.** A 1998 survey of East Tennessee physicians helped identify barriers to reporting.<sup>1</sup> Nearly 90% of respondents reported that there was at least one notifiable condition for which they did not previously know reporting was required. Barriers to report-

Quick Links	
<p><b>Notifiable Disease Report Form (PH-1600)</b>  <a href="http://health.state.tn.us/downloads/ph-1600.pdf">http://health.state.tn.us/downloads/ph-1600.pdf</a></p>	<p><b>Case Definitions for Nationally Notifiable Diseases</b>  <a href="http://health.state.tn.us/ceds/definitions.htm">http://health.state.tn.us/ceds/definitions.htm</a></p>
<p><b>Notifiable Disease List</b>  <a href="http://health.state.tn.us/ceds/notifiable.htm">http://health.state.tn.us/ceds/notifiable.htm</a></p>	<p><b>2006 CEDS Annual Report</b>  <a href="http://health.state.tn.us/ceds/AnIRprt_2006.pdf">http://health.state.tn.us/ceds/AnIRprt_2006.pdf</a></p>
<p><b>Weekly Surveillance Reports</b>  <a href="http://health.state.tn.us/ceds/WeeklyReports/WeeklyReports.asp">http://health.state.tn.us/ceds/WeeklyReports/WeeklyReports.asp</a></p>	<p><b>Local Health Department List</b>  <a href="http://health.state.tn.us/localdepartments.htm">http://health.state.tn.us/localdepartments.htm</a></p>
<p><b>Communicable Disease Data Interactive Reports</b>  <a href="http://health.state.tn.us/ceds/WebAim/aimhome.htm">http://health.state.tn.us/ceds/WebAim/aimhome.htm</a></p>	<p><b>Communicable and Environmental Disease Services (CEDS)</b>  <a href="http://health.state.tn.us/ceds/index.htm">http://health.state.tn.us/ceds/index.htm</a></p>

ing included not having the public health form (PH-1600) and not knowing which diseases were reportable. See the “Quick Links” box below for links to these forms and a directory of local health departments.

Finally, summary tables of notifiable diseases reported in Tennessee are updated weekly and available on the TDH website.

These tables show weekly and yearly totals for nearly 100 diseases in each TDH region and statewide. Take a look at your region’s totals today!

If you have any questions regarding if or how a disease should be reported, please contact your local or regional health department. — *by Mary Lancaster, PhD* ❖

<sup>1</sup>Erwin, Paul C., David Brumley, and Frank Bristow. 1999. Physician reporting of communicable diseases in east Tennessee: implications for statewide underreporting. *Tennessee Medicine*, pp. 61-62.

Reported Cases, by Year of Diagnosis, Tennessee, 2004-2008					
Condition	2004	2005	2006	2007	YTD 2008*
<i>Cryptosporidium</i>	55	44	47	134	10
Meningococcal Disease	22	28	25	21	12
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA), invasive	913	1994	2029	1973	698
Rocky Mountain Spotted Fever	101	139	260	188	12
<i>Salmonella</i> , non-Typhi	776	820	844	851	185
Shiga-toxin producing <i>E. coli</i> (STEC) <sup>^</sup>	52	62	147	117	36
STEC O157 <sup>†</sup>	48	45	88	52	15
STEC Non-O157 <sup>†</sup>	4	2	10	17	2
<i>Shigella</i>	571	507	200	363	257
Syphilis	803	907	1016	1207	485
Tuberculosis (TB)	277	299	277	234	102
Pediatric TB 0-4 yrs	13	10	11	4	3
Pediatric TB 5-15 yrs	5	6	6	7	2
West Nile virus (WNV)	14	18	22	11	1

\* YTD Totals as of May 31, 2008

<sup>^</sup> Includes shiga-toxin EIA and PCR testing, not all are culture-confirmed.

<sup>†</sup> Includes culture-confirmed cases only

## YOU are invited!

Call Terri at (615) 322-5874 or e-mail [terri.mcminn@vanderbilt.edu](mailto:terri.mcminn@vanderbilt.edu)

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## Limit the Sun, but Still Have All the Fun

- ▶ **Use Sunscreen Every Day!** Protect the skin you're in by applying sun screen with an SPF of 15 or higher. Apply the sunscreen to dry intact skin at least 15 minutes before going outside and reapply every two hours or as needed with increased activity or after swimming.
  - ▶ **Limit Time in the Midday Sun!** The time to ensure maximum protection from the hottest rays of the sun is between 10 a.m. and 4 p.m. when the UV rays are strongest.
  - ▶ **Wear a Hat and Lip Balm Protection!** A hat with a wide brim will give you the best protection for your scalp, ears, face and the tender part of your neck. Protect lips with SPF 15+ lip balm.
- 
- ▶ **Wear Sunglasses!** Sunglasses come in many shades and shapes to keep you in style. Sunglasses help to reduce sun exposure to your eyes which can damage them and lead to cataracts. When choosing a pair of sunglasses, look at the UVA and UVB protection to ensure at least a 90% block against the sun.
  - ▶ **Cover Up!** When out in the sun, a lighter colored fabric with a tight weave will provide the most protection.
  - ▶ **Stay Away from Sun Lamps and Tanning Booths!** Avoid over-processing your skin.
  - ▶ **Hydrate your skin daily!** Moisture loss needs to be replaced. Use a good moisturizing lotion several times each day when spending time in the sun. Replenish your inside with plenty of water.  
— by Deborah Wojnarek, RN, BSN, CWS ❖

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