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# Tennessee Epi-News

GOVERNOR BILL HASLAM

COMMISSIONER JOHN J. DREYZEHNER, MD, MPH

## 2018 Reportable Disease Updates

The 2018 reportable diseases, conditions and events and related documentation have been posted to the reportable diseases webpage at: <https://apps.health.tn.gov/ReportableDiseases/>.

### Changes for All Reporters (Providers & Laboratories):

- The condition of Carbapenem-resistant Enterobacteriaceae has been expanded beyond *Enterobacter* and *Klebsiella* species, and *E. coli*,

to include all genera and species in the Enterobacteriaceae family.

- Any suspected or known cases of Yellow Fever should be reported on the next business day (previously within one week).
- The Reportable Disease and Events (PH-1600) form, used to report cases of reportable diseases to public health, will remain the same for 2018. An additional question to capture the Expected Due Date for a pregnant case has been added.

The fillable pdf form is available [online](#). The online reporting form has been updated and is available at: <https://redcap.health.tn.gov/redcap/surveys/?s=XTJTN4MD3D>.

### Changes for Laboratories Only:

- Burkholderia mallei is no longer reportable from laboratories.
- Klebsiella species, Extended-spectrum Beta-lactamase-producing, are reportable from sentinel laboratories in Maury and Williamson.

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## Pertussis in Tennessee Infants

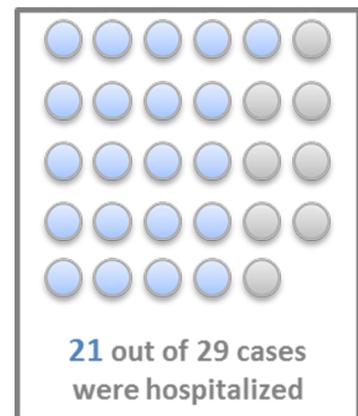
In Tennessee in 2017, 29 infants <3 months of age were diagnosed with pertussis (whooping cough) and 21 were hospitalized. Although these numbers are not unprecedented, they are too high. There is a simple, effective way to prevent neonatal pertussis: vaccinate mothers with a tetanus-

diphtheria-pertussis or Tdap vaccine between 27-36 weeks gestation in every pregnancy. This has been recommended by the Centers for Disease Control and Prevention and the American College of Obstetrics and Gynecology since 2013, but <50 percent of pregnant women receive the vaccine.

Pertussis is serious: on average, 1/100 infants <3 months with pertussis will die. Recent large studies have demonstrated a 78-90 percent reduction in the risk of pertussis among infants born to vaccinated mothers and 90 percent protection against hospitalization in infants <2

months whose mothers were vaccinated. Protection is conferred by high levels of maternal antibodies transferred across the placenta to the fetus. Of the infant cases this year

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# 2018 Reportable Disease Updates

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- HIV-1 Genotype nucleotide sequences are now reportable for those laboratories conducting this testing and reporting via electronic laboratory reporting .
- For the *Rickettsia* species, elevated IgM antibody tests reactive to *R. rickettsia* or other Spotted Fever Group Rickettsioses are no longer reportable. All other positives continue to be reportable.
- Isolates are required to be

submitted to the TDH Laboratory within two weeks of detection for the following pathogens: *Campylobacter* species, *Cryptosporidium* species, *Cyclospora* species, *Escherichia coli*, Shiga toxin-producing, *Listeria* species, *Salmonella Typhi*, *Salmonella* species (other than *S. Typhi*), *Shigella* species, *Vibrio cholerae* (Toxigenic O1 or O139), *Vibrio* species (Non-toxigenic O1 or O139), *Grimontia hollisae*, *Photobacterium*

*damselae* and *Yersinia* species.

- Refer to the [Detailed Laboratory Guidance](#) for additional changes for *Candida auris* (including sending rule-out *C. auris* isolates), *Clostridium difficile*, *Escherichia coli*, Extended Spectrum Beta-Lactamase-producing, Lead levels, *Pseudomonas aeruginosa*, Carbapenem-resistant, and *Staphylococcus aureus*, methicillin-resistant.

Shannon Harney, MPH

## Hepatitis C Virus Update

Acute and chronic Hepatitis C virus infections have reached epidemic proportions in Tennessee. During 2016, the first full year of the Tennessee Department of Health Viral Hepatitis Surveillance Program, there were ~21,000 newly reported cases of chronic HCV. Without treatment, people living with chronic HCV may develop liver cancer, cirrhosis or other life-threatening HCV-related diseases and may unknowingly transmit the disease to others.

In order to facilitate linkage to HCV treatment, TDH has built health department capacity to navigate HCV-

positive health department clients to care by establishing 11 full-time Viral Hepatitis Case Navigator positions. VHCNs are located in five metropolitan regions (Chattanooga, Knoxville, Memphis, Nashville, Sullivan) and six rural public health regions (East, Mid-Cumberland, Northeast, Southeast, South Central and Upper Cumberland). The two regions without dedicated VHCNs are able to conduct navigation services via existing staff or through the in-kind service of Tennessee's Viral Hepatitis Prevention Coordinator.

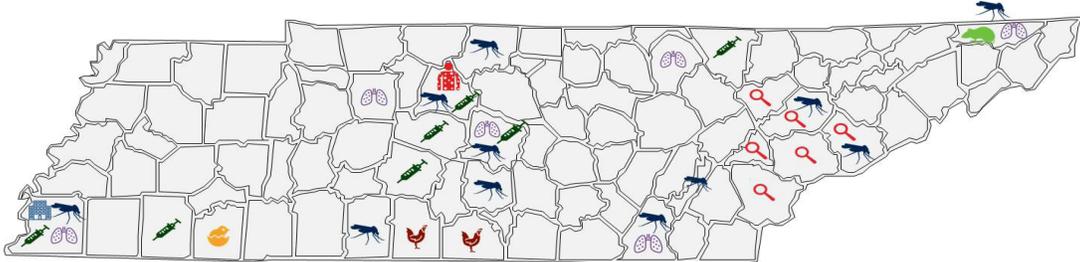
VHCNs are responsible for identifying acute or chronically

infected individuals residing in their region and referring them to HCV treatment or other services (e.g., HIV care, substance abuse disorder treatment) based on client-centered goals. In order to ensure our region-specific HCV treatment provider directory is up-to-date, if you know of HCV providers who would like to be added to TDH's directory, please contact the TDH VHPC Catherine Goff ([Catherine.Goff@tn.gov](mailto:Catherine.Goff@tn.gov)).

Lindsey Sizemore, MPH, CPH  
Jennifer Black, MPH



## Major Public Health Events of 2017





<ul style="list-style-type: none"> <li> Seoul virus investigation</li> <li> Hotel-associated <i>Legionella</i> outbreak</li> <li> Prison-associated scabies outbreak</li> <li> Mumps cases</li> <li> Hurricane response strike teams*</li> </ul>	<ul style="list-style-type: none"> <li> Highly pathogenic avian influenza</li> <li> Tuberculosis investigation</li> <li> Salmonella outbreak</li> <li> Neuroinvasive mosquito-borne disease (West Nile/La Crosse)</li> <li> HIV cluster investigation</li> </ul>
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\*Hurricane response deployers sent to Florida and the US Virgin Islands

## Carbon Monoxide Poisoning - "The Silent Killer"

In January 2013, carbon monoxide poisoning became a reportable event in Tennessee. Within one week of diagnosis, health care providers, physicians, hospitals, laboratories or other persons knowing of suspected CO poisoning should report it to the Tennessee Department of Health.

CO is a poisonous gas that cannot be smelled, seen or tasted. It can cause death in minutes if breathed at high levels. CO can quickly build up to unsafe levels in enclosed or semi-enclosed areas. People may be exposed to unsafe levels of CO when charcoal, natural gas, propane, gasoline, fuel oil or wood are burned in a poorly ventilated area. Breathing exhaust from a car, truck, generator or power tool in an enclosed area can also result in CO poisoning. CO poisoning was the leading cause of unintentional poisoning deaths in the United States, 2000-2009.

From 2014-2016, 12 Tennesseans died from CO poisoning. Although CO poisoning can be prevented, every year hundreds of Tennesseans need emergency medical care. Many people are hospitalized after exposure to CO. About 50 percent of all CO poisonings occur inside the home, 40 percent are vehicle-related and 10 percent occur at work. Tracking CO poisonings helps us target outreach and prevention efforts. All people and animals are at risk for CO poisoning. Certain groups are more easily affected by CO poisoning: unborn babies, infants, children, pregnant women, people with chronic heart disease, anemia or respiratory problems and people who already have elevated CO blood levels, such as smokers.

Common symptoms of CO poisoning include: headache, dizziness, fatigue, nausea, vomiting, shortness of breath, chest pain, weakness and confusion. Breathing high levels of CO can cause loss of consciousness and death. People who are sleeping can die from CO poisoning before ever knowing they are being exposed to the gas.

Carbon Monoxide detectors should be installed in your home. If the alarm goes off, evacuate and call 911. Follow the CO detector instructions for routine maintenance, including regular replacement of batteries. If the CO detector is wired to the electrical supply, make sure it has back-up batteries for when the electricity is off. A short [CO video](#) was recently completed by TDH. For more information on carbon monoxide, see the TDH Carbon Monoxide [web page](#).

Craig Shepherd, MPH, REHS/RS, DAAS



## Antimicrobial Stewardship in Cold & Flu Season

Cold and flu season is here! This is a great time to buff up antimicrobial stewardship efforts. TN is the fifth leading state in number of prescriptions of antibiotics per capita. Let's improve our stats!

Bronchitis, the common cold, most sore throats, most sinus infections and many ear infections are caused by viruses and do not need OR benefit from antibiotics. Taking antibiotics for a viral infection does not cure the infection or help you feel better, nor does it protect others from catching the illness.

Taking an antibiotic for a viral illness can actually lead to an increased risk of an antibiotic resistant infection later on and increases the likelihood of adverse drug effects. The antibiotic can affect good bacteria in the gut and lead to other harmful bacterial infections, such as

*Clostridium difficile*. Below are steps to improve antimicrobial stewardship during cold and flu season:

- Knowledge is power: know when antibiotics are needed and when they're not (the link below includes a table that may be helpful in identifying respiratory illnesses that do require antibiotic therapy).
- Talk to your patients about symptom relief; sometimes this is a better treatment option than an antibiotic.
- Display commitment posters for good antibiotic prescribing practices to patients; they serve as a tool for communicating with patients about when antibiotics are and are not needed.
- Potentially employ watchful waiting and delayed prescribing practices for antibiotics. These allow patients and prescribers to see if patients improve without the use of antibiotics.

- If you are a healthcare provider and do prescribe an antibiotic, make sure to explain to the patient to take the medication exactly as prescribed; remind them that stopping, saving or sharing the antibiotic can contribute to antibiotic resistance and harmful side effects.
- Always remember to prescribe the right antibiotic, at the right dose, for the right duration and at the right time.
- Follow clinical guidelines when prescribing antibiotics.
- Encourage vaccination and get vaccinated yourself! Vaccines help prevent infections that may need antibiotics as well as prevent the spread of disease.

Visit CDC's website for more information on [CDC's Be Antibiotics Aware, Smart Use, Best Care Campaign](#).

Christopher Evans, PharmD, BCPS  
Raphaelle Beard, MPH

# Pertussis in Tennessee Infants

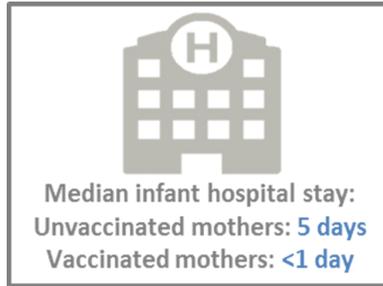
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whose maternal vaccination status was known, 20/25 (80 percent) were born to mothers who did not receive Tdap during pregnancy. The five whose mothers had Tdap during pregnancy were hospitalized for one day or not at all; those born to unvaccinated mothers had a median hospital stay of five days (range: 1-24 days).

Mothers are most likely to be vaccinated if their prenatal care provider strongly recommends that they receive Tdap (and influenza) vaccine during pregnancy and provides the vaccine. Health department clinics, and many

other clinics and pharmacies stock Tdap if access is an issue. These data can be used to help hesitant mothers understand why vaccination is important. We can prevent a serious illness too many Tennessee families faced last year.

*Cassandra Jones, MPH*



# Norovirus Update

Norovirus is the most common cause of acute gastroenteritis in the US. It occurs year round with peak activity during the winter months. Each year, norovirus causes 19-21 million illnesses and contributes to 56,000-71,000 hospitalizations and 570-800 deaths. Hospitalization and mortality associated with norovirus infection occur most frequently among elderly persons, young children and the immunocompromised. Norovirus is also the most common cause of foodborne disease outbreaks in Tennessee and the US. In TN, 63 percent of enteric outbreaks were attributed to norovirus from 2010-2016.

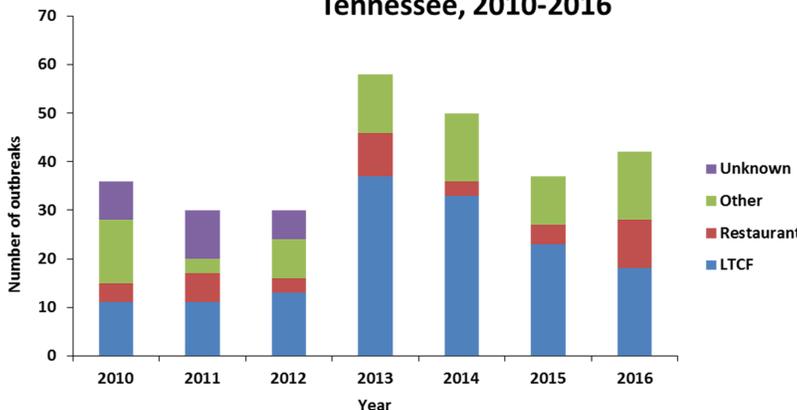
Norovirus is most often transmitted person-to-

person, especially in long-term care facilities. Foodborne transmission accounts for ~25 percent of all norovirus outbreaks, with the majority occurring in restaurant settings. The majority of outbreaks in TN occur in LTCF as noted in the figure. From August 1, 2017-January 23, 2018, 38 norovirus outbreaks have been reported to TDH; 84 percent were detected in LTCFs. Health care providers should report all outbreaks of acute gastroenteritis to the health department. The following prevention and control measures

- should be used:
- Use good hand hygiene
  - Wash fruits and vegetables and cook seafood thoroughly
  - Do not prepare food or care for others when sick
  - Clean and disinfect contaminated surfaces
  - Wash laundry thoroughly
  - Isolate patients, staff and infected areas
  - Contact precautions until 48h symptom resolution
- For more information, refer to the [TDH LTCF Gastroenteritis Outbreak Guidelines](#).

*Samir Hanna, MD, MSPH*  
*Katie Garman, MPH*

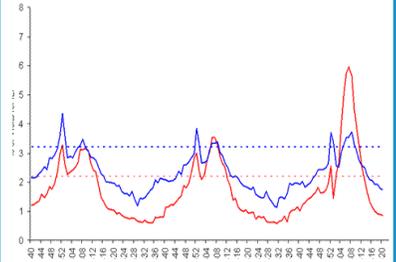
**Number of Norovirus Outbreaks by Setting, Tennessee, 2010-2016**



# Flu happens!

(And we need you to tell us about it.)

Join the  
**Tennessee Sentinel Providers Network**



**Conducting year-round influenza surveillance, including free laboratory testing for selected specimens.**

**Contact Robb Garman for more information:**  
**(615) 532-8507**  
**robb.garman@tn.gov**

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