

MONTANA LABORATORY SENTINEL

Update from the MT Laboratory Services Bureau (800) 821-7284 www.lab.fhs.mt.gov

CDC Releases 2013 Antibiotic Resistance Threats Report

The Centers for Disease Control and Prevention (CDC) has just released a [document](#) which highlights the concerning emergence of organisms that have developed resistance to a broad array of antibiotics. The CDC estimates that over 2 million people acquire antibiotic-resistant infections each year, leading to at least 20,000 deaths. CDC warned of “potentially catastrophic consequences” unless prompt action is taken. It said that up to half of the antibiotics prescribed for people are not needed or appropriately used (as when a broad spectrum antibiotic is used instead of a more targeted drug).

The report introduces a new system of categorizing bacteria according to the level of concern each organism raises (urgent, serious, or concerning). The CDC report has assigned the following organisms as “urgent” threats: *Clostridium difficile*, drug-resistant *Neisseria gonorrhoeae*, and carbapenem-resistant *Enterobacteriaceae*.

One of the four core actions listed as avenues to prevent the spread of antibiotic resistance is the development of new diagnostic testing. MTPHL places a specific emphasis on confirmation of certain resistance mechanisms, and either offers or has available a broad catalog of screening and confirmatory tests. We urge laboratories throughout the state to send suspect isolates for referral and confirmatory testing, many of which are now a requirement under the new Communicable Disease Rules. See the MTPHL website: <http://www.dphhs.mt.gov/publichealth/lab/diagnostictesting.shtml> for a list of organisms of interest.

Carbapenemase-producing *Enterobacteriaceae*

Over the past several years, there has been a rise in the number of cases involving these bacteria, and CRE have been designated by CDC as “urgent threats”. Examples include *Klebsiella pneumoniae*, *Escherichia coli*, and *Enterobacter cloacae*. Early detection and categorization of these bacteria is essential for effective infection control and appropriate antibiotic therapy. Several laboratory tests are currently in development to aid in these efforts. In the Montana Communicable Disease rules that became effective in June, all suspect or confirmed CRE isolates, by rule, must be referred to the Montana Public Health Laboratory. This rule is intended to make sure CREs are confirmed, and also provide data to better understand the prevalence of CRE in Montana. MTPHL currently is using the Modified Hodge test, but has the resources of other state laboratories and CDC to do both molecular and phenotypic testing. MTPHL is planning a direct mailing to laboratories that will provide more information on the detection and identification of CRE, as well as the new rule requirements for submission of isolates.

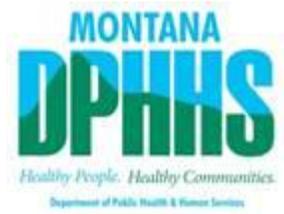
Measles and Mumps Testing

With school back in session and at least one outbreak of measles in the United States, it is important to be aware of the signs and symptoms of measles and mumps infection. Over 20 people in a Texas community recently were sickened with the measles virus after being exposed to someone who had contracted the virus while overseas. Caution should be taken when traveling to endemic areas such as Pakistan, where nearly 300 deaths due to measles have occurred this year alone.

From a laboratory perspective, it is equally important to be aware of the test methods used to help diagnose measles and mumps. In the MTPHL, traditional viral culture and IgM and IgG serologies for acute infections have been recently supplemented with molecular testing. This new test methodology is more specific and sensitive, and will allow for a faster test result for use in diagnosis and patient management. Contact the MTPHL for more information on these tests, including specimen requirements at 800-821-7284.

Continuing Education...

The Association of Public Health Laboratories (APHL) offers quality, cost-effective laboratory continuing education at your convenience. See all of the APHL CE offerings, including National Laboratory Training Network free courses, on their [website](#).



Montana Communicable Disease Weekly Update

Release date: 9/20/2013

DISEASE INFORMATION

Summary – MMWR Week 37 - Ending 9/14/2013 Preliminary disease reports received at DPHHS during the reporting period September 8–14, 2013 included the following:

- **Vaccine Preventable Diseases:** Pertussis (3), Varicella (1)
- **Invasive Diseases:** West Nile Encephalitis (3)
- **Enteric Diseases:** Campylobacteriosis (1), Cryptosporidiosis (9), Giardiasis (5), Salmonellosis (1), Shigellosis (5)
- **Hepatitis:** (0)
- **HIV Disease**:** (3)
- **Vector-borne Diseases:** West Nile Fever (9)
- **Animal Rabies:** (0)
- **Travel Related Conditions:** (0)

*** A case is included if a new confirmatory test or report was received by DPHHS. Cases include both persons who were newly diagnosed and persons newly reported in Montana who may have been diagnosed in another state or country.*

NOTE: The attached reports have multiple pages reflecting the following information: (1) communicable diseases YTD; (2) cases just this past reporting week; (3) clusters and outbreaks; and (4) a quarterly HIV/STD summary.

HOT TOPICS

Gonorrhea : Don't miss... **Gonorrhea Invasion**, a WEBX for public health professionals coming to a link near you soon. And you thought Zombies were bad...

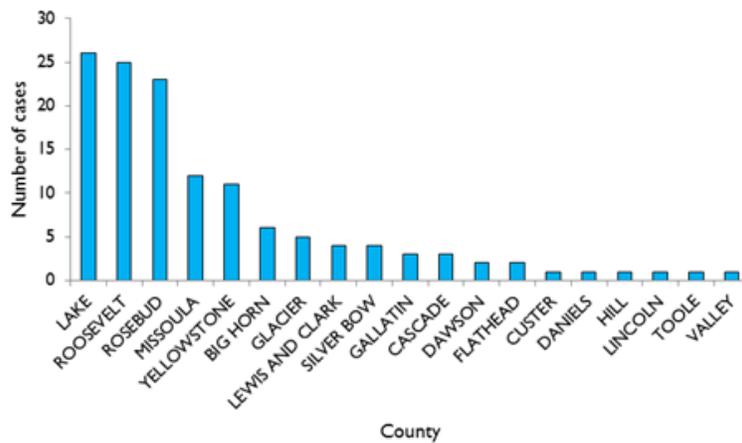
Threat Level Urgent – This bacteria is an immediate public health threat that requires urgent and aggressive action (CDC Drug Resistance Threat Report)

Category	Date / Time	Title /Topic / Instructor	Location	Registration Info
CDCB Training	September 24, 2013 at 9:00 am	Gonorrhea Invasion - Laurie Kops	Webex	Join
CDCB Training	September 25, 2013 at 9:00 am	Gonorrhea Invasion - Laurie Kops	Webex	Join

Gonorrhea NEWS - Four new gonorrhea cases have been reported in Montana since September 13, 2013.

- As of September 19, 2013, 132 cases have been reported in Montana for 2013.
- Lake County has reported 26 cases, Roosevelt County/Ft. Peck have reported 25 and Rosebud County has reported 23 cases in 2013.
- The number of gonorrhea cases as of September 19, 2013 (132) has surpassed the total number in 2012 (108).

Gonorrhea cases by county — Montana, Jan 1–Sep 19, 2013*



* County case counts may include cases belonging to tribal health jurisdictions that lie within the county’s borders

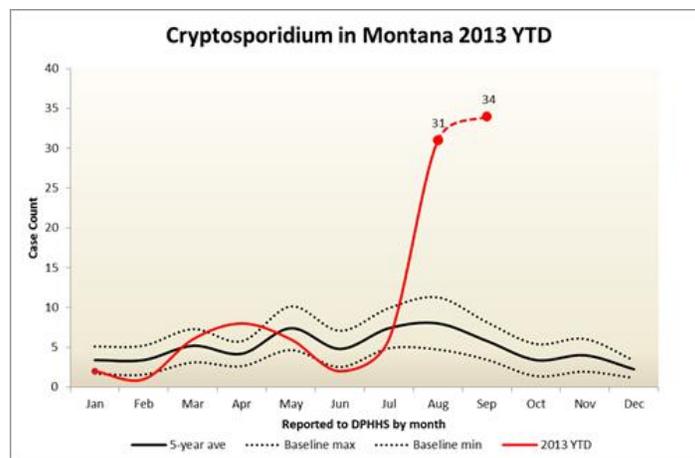
Please direct case-specific inquiries and updates to Cara Murolo (cmurolo@mt.gov; 406-444-2678). Any questions regarding the data can be directed to Peter Choi (pchoi@mt.gov; 406-444-4735).

For more information on resistant gonorrhea and other emerging drug resistant diseases go to the CDC drug resistant threat report at <http://www.cdc.gov/drugresistance/threat-report-2013/pdf/ar-threats-2013-508.pdf>

West Nile Virus (WNV) 09/20/2013 update: Unfortunately, there were 2 confirmed WNV-related deaths in Treasure and Yellowstone counties this week. There have been 19 cases of WNV reported to MT DPHHS including 5 cases of neuroinvasive WNV. 10 suspect cases of WNV are currently under investigation. In addition, four Montanan residents have been identified as “viremic blood donors” after donating blood through The American Red Cross and testing positive for WNV during routine donor screening. The 2013 WNV season started later than normal, so it will be especially important to adhere to the 5 D’s of WNV Prevention for the next few weeks.

Please contact Joel Merriman, MT DPHHS WNV Coordinator, at 406-444-0274 or jmerriman@mt.gov if you have additional questions.

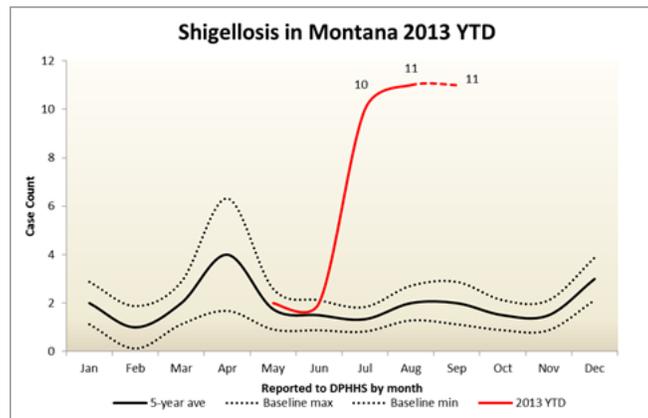
Cryptosporidiosis: A total of 96 cryptosporidiosis cases have been reported in Montana this year, compared to a 5-year average of 59 cases annually. Forty-nine of those cases (cases with known onset dates) became ill in August. The counties with highest cryptosporidium activity are: Yellowstone (32%), Cascade (13%) and Flathead (11%).



A lot of the cases that are currently reported have had recreational water exposure and environmental precautions are being taken. Please be aware of the increase in cases reported and follow up with pool operators when applicable including assessing operator compliance with existing regulations (37.115.303) around secondary disinfection systems.

We are expecting this trend to subside quickly due to the reduction of outside temperatures and closure of splash parks and pools due to seasonal operation however; operators need to be prepared for next year. We do not want to see this kind of thing occur at the beginning of a season in particular.

Shigellosis: A total of 36 shigellosis cases have been reported in Montana this year, compared to a 5-year average of 11 cases annually. Even though things quieted down between the end of August and beginning of September, we have seen an increase in cases within the past week. Many of the newer cases are reported in Crow and Northern Cheyenne jurisdictions. The counties with highest shigellosis activity are: Yellowstone (35%), Crow (26%) and Northern Cheyenne (21%).



This uptick in shigellosis cases is a good reminder that this outbreak is not over yet. A lot of outreach and awareness has already been done, but this might be a good time to remind providers, schools and daycares of the ongoing transmission of shigellosis, especially in the affected tri-county area. More than half of the cases are school-aged children or younger.

INFORMATION/ANNOUNCEMENTS

DPHHS Communicable Disease School Resources Website: We have the CDEpi school resource site up and running. Please communicate with your school based partners that this resource is available. The site can be found at <http://schoolhealth.mt.gov/>

Influenza Information: 2013/14 School Absenteeism Forms can be found on the Contractors Sharepoint site under the CDEpi tab, CDEpi Resources side menu and school resources folder.

CDE has an excellent seasonal influenza website called What's New. There are links to information on Quadrivalent vaccines and the seasonal ACIP recommendations and much more. Take a look at <http://www.cdc.gov/flu/whatsnew.htm>

24/7 AVAILABILITY

The Communicable Disease Epidemiology (CDEpi) Program is available 24 hours a day, 7 days a week, 365 days a year, primarily to assist local health jurisdictions. Local providers should call, including after normal business hours, their local health jurisdiction. The CDEpi 24-hour line is available as a back-up to the local health jurisdiction's 24-hour line. If you need CDEpi assistance, please call 406.444.0273. Phone calls to this number outside of normal business hours will be answered by the answering service. The answering service will immediately forward the message to CDEpi, and we will respond as quickly as possible.

Local health jurisdictions, please ensure that your local providers have your 24/7/365 contact information. And please inform CDEpi or the Public Health Emergency Preparedness Program of updates to your required 24/7 contact information.

This update is produced by the Montana Communicable Disease Epidemiology Program. Questions regarding its content should be directed to 406.444.0273 (24/7/365). For more information: <http://cdepi.hhs.mt.gov>