



2014 Communicable Disease Report Gallatin City-County Health Department

Montana state law requires health care providers to report more than 50 diseases or conditions to local health departments in order to track and limit the spread of infectious diseases. The Communicable Disease staff at Gallatin City-County Health Department responds to these reports to monitor community health status, investigate cases that may pose a public health risk, and inform and educate the community to prevent the spread of disease. Through contact investigations and epidemiological analysis, the Health Department detects and mitigates disease outbreaks thereby preventing the spread of communicable diseases.

The aim of this report is to provide a broad summary of infectious disease cases reported to Gallatin City-County Health Department from January 1, 2014 through December 31, 2014. In addition, this report identifies a number of diseases of particular interest based on the number of case reports over time or compared to statewide or national data.

Below is a brief summary of some of the most frequently reported diseases in the county during 2014, comparing this data to a rolling 5-year average in Gallatin County.

5 Year Rolling Average of Common Reportable Diseases in Gallatin County						
Disease	2010	2011	2012	2013	2014	Average
HIV	1	2	1	1	0	1
Campy	29	41	40	25	34	34
Chlamydia	250	307	344	333	344	316
Cryptosporidiosis	9	2	5	10	10	7
Shiga-toxin E. coli	8	8	10	9	5	8
Giardia	22	11	13	18	19	17
Gonorrhea	15	5	3	3	11	7
Hepatitis A	0	0	2	0	0	0
Hepatitis B	5	4	11	2	4	5
Hepatitis C	73	83	94	51	53	71
Meningitis-bacterial	0	0	1	0	0	0
Meningitis-viral	6	1	5	2	0	3
Pertussis	7	49	28	25	39	30
Salmonella	11	21	11	15	14	14
Shigella	2	6	0	5	1	3
Tuberculosis	0	1	0	0	0	0



The analysis below is neither definitive nor comprehensive, but it does serve as a reasonable starting point from which to approach this work in the future.

Chlamydia and Gonorrhea

	2013	2014
Chlamydia	333	344
Gonorrhea	3	11

Chlamydia is the most common sexually transmitted disease in the United States. The CDC recommends yearly screening for sexually active women 25 years old and younger, women older than 25 with multiple partners, or those women who have a partner diagnosed with a sexually transmitted disease. Chlamydia is treatable with an antibiotic, but if left untreated it can lead to complications including infertility.

While Gallatin County's rate of chlamydia has remained stable over the last years, we are concerned about the increase in gonorrhea cases. Gonorrhea is also a sexually transmitted disease but unlike chlamydia, this bacteria is developing resistance to the antibiotics normally used to treat it. We have not seen antibiotic resistant gonorrhea in Gallatin County, but the increase in number of gonorrhea cases suggests the need for continued monitoring.

The number of sexually transmitted disease cases also reaffirms the importance of safe sexual practices, such as consistent and correct condom use.

Hepatitis C

	2013	2014
Hepatitis C	51	53

The number of newly diagnosed cases of Hepatitis C in Gallatin County is relatively unchanged compared to 2013. In June of 2013, the US Preventative Services Task Force recommended all people born between 1945 and 1965 be screened for Hepatitis C regardless of participation in risky activities. The screening recommendations continue to include screening for anyone with past or current injection drug use, those with certain medical conditions, and those with a know exposure.

Hepatitis C virus is transmitted through contact with infected blood. The virus can cause damage to the liver which may be serious enough that an infected person would need a liver transplant. Liver damage from Hepatitis C can also lead to hepatocellular carcinoma. While treatment for Hepatitis C remains very expensive, recent additions to Hepatitis C therapy have made the medications more accessible and the side effects easier to manage.

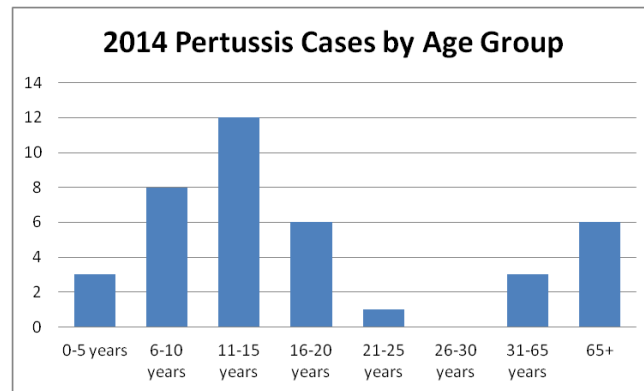
The initial screening for Hepatitis C is the first step in what is called the "cascade of care". If someone screens positive they will need confirmatory testing and additional viral testing. Lack of health insurance



or challenges navigating the health care system could present barriers to treatment. Completing treatment for Hepatitis C is an important part of reducing the spread of the disease since there is no vaccine available.

Pertussis

	2013	2014
Pertussis	26	39



Pertussis is a highly contagious bacterial infection. It is spread by droplets (when an infected person coughs or sneezes) and is particularly dangerous when contracted by very young children who are not old enough to receive the pertussis vaccine. The Tdap and DTap vaccines provide protection from pertussis, neither one is 100% effective, but people immunized for pertussis who get sick tend to have less severe symptoms and tend to be less infectious. Vaccines continue to be the best way to protect infants and others whose compromised immune systems place them at higher risk of being hospitalized or dying from pertussis.

There were 13 more cases of pertussis in 2014 than in 2013, an increase of 50%. Gallatin County's increase in pertussis cases mirrors a nationwide trend. In the first half of 2014, there were 17,325 cases reported in the United States; this is an increase of 30% compared to the same time period in 2013.

In December 2014, we had a cluster of 11 cases centered in a school. A retrospective analysis of this cluster showed that at the time the first case was diagnosed, there were five other people in the community who also had pertussis. Without the high level of immunizations in this community this cluster likely would have been much bigger.

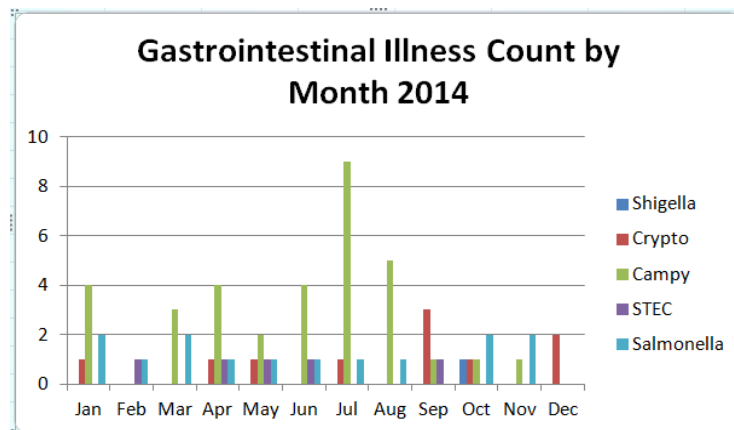
The data from 2014 demonstrate why pertussis outbreaks continue to be a significant concern in Gallatin County and Montana, both for the public health impact as well as the financial and workforce burden placed on public health agencies, schools, and health care providers. A single outbreak, particularly in a school setting, can require hundreds of staff hours, force lost time at work for parents, and overwhelm clinics. The 2014 data also reinforces the need to continue efforts to reduce the risk of



outbreaks by working with schools and health care providers to eliminate unnecessary exemptions from school immunization requirements and maximizing the number of people immunized against pertussis. These measures are critical to protecting vulnerable populations from the serious disease.

Gastrointestinal Illness

This graph shows common reportable gastrointestinal (GI) diseases in Gallatin County by month for 2014. Campylobacter was the most prevalent disease with 34 cases last year, six of the cases were probably exposed when they worked with cattle and four cases were probably exposed in international travel. Salmonella is another bacterial infection, three of the fourteen cases of salmonella reported exposure to pet reptiles. Among the five cases of shiga toxin producing E.coli(STEC), four people reported international travel during the incubation period. Giardia is protozoa with a long incubation period. Four of the nineteen cases of giardia were probably exposed in international travel and another six cases from drinking lake, stream, or river water.



References:

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