



2013 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. This work – which includes contact investigations and epidemiological analysis - allows the Health Department to detect and mitigate disease outbreaks and to prevent future spread of preventable disease.

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, 2013 through December 31, 2013. In addition to a general summary, this report identifies a number of diseases of particular interest based on the incidence 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 2013, calculated to allow comparison of 2013 data to a rolling 5-year average in Gallatin County.

5 Year Rolling Average of Common Reportable Diseases in Gallatin County

Disease	2009	2010	2011	2012	2013	AVERAGE
AIDS	0	0	0	0	0	0
Campylobacter	34	29	41	40	25	33.8
Chlamydia	246	250	307	344	333	296
Cryptosporidiosis	18	9	2	5	11	9
E. coli	2	8	8	10	11	7.8
Giardia	19	22	11	13	18	16.6
Gonorrhea	4	15	5	3	3	6
Hepatitis A	3	0	0	2	0	1
Hepatitis B	4	5	4	11	2	5.2
Hepatitis C-chronic	80	73	83	94	51	76.2
Men(bacterial)	2	0	0	1	0	0.6
Men(viral)	4	6	1	5	2	3.6
Pertussis	9	7	49	28	25	23.6
Salmonella	17	11	21	11	15	15
Shigella	1	2	6	0	3	2.4
Tuberculosis	2	0	1	0	0	0.6



An analysis of the data trends compiled above, in addition to comparison with state and U.S. figures, provides some rationale for additional analysis and context for certain diseases. 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

	2013	2012
Cases	333	344

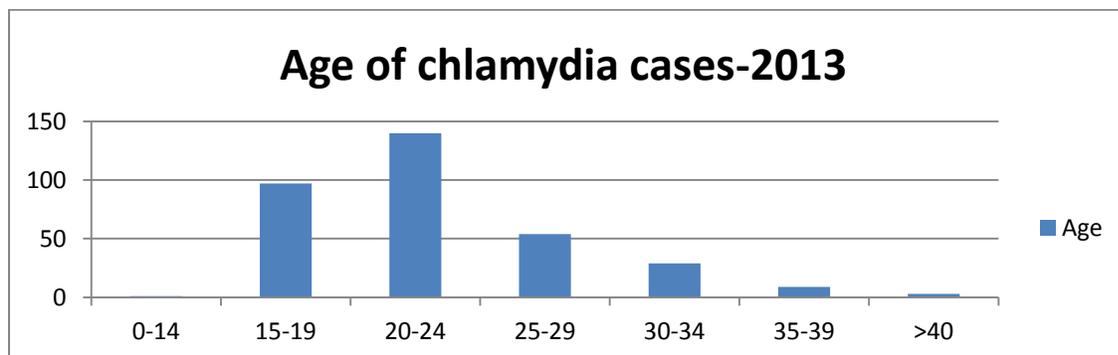
Chlamydia is the most commonly reported STD in the United States. The CDC recommends yearly screening for sexually active women ages 25 and younger, and women over the age of 25 with risk factors. Both men and women can be infected with chlamydia and not experience symptoms. Notably, 46% of cases in Gallatin County were diagnosed by BridgerCare. Fifty seven cases were identified as a result of partner notification.

The most recent state and national Chlamydia data is from 2012. The number of Chlamydia cases in Gallatin County has increased steadily in recent years, giving some reason for concern. It is important, however, to also note that Gallatin County's overall incidence of Chlamydia compares favorably to rates in Montana and the U.S. (see table below). Even so, the rising number of cases in recent years warrants continued monitoring and attention. An analysis of the ages of those infected shows some evidence that the disease is being spread predominantly among adolescent and college-age populations. Additional analysis of this data, possibly by using GIS technology to map cases geographically, might provide a greater understanding of the trend in Gallatin County and assist in targeted outreach efforts to raise awareness in high-risk groups or geographic areas.

This table below provides evidence that incidence rates in Gallatin County:

Chlamydia rates in 2012 per 100,000

Gallatin County	371.2
Montana	383
United States	456.7



Hepatitis C

	2013	2012
Hepatitis C	51	94

Hepatitis C (HCV) is a viral disease transmitted most commonly through exposure to infected blood. Hepatitis C is important because 50-80% of people will be chronically infected with HCV and half of chronically infected people will develop cirrhosis or liver cancer. In Gallatin County in 2013, data shows a disruption in what had been a concerning upward trend in HCV cases in Gallatin County. This drop in cases after several years of steadily rising rates adds some ambiguity to an already complex data set. Tracking HCV cases at the local level can be challenging as it necessary to distinguish new cases from previously reported cases, and to determine whether the case is chronically infected or resolved. The Department works closely with providers to determine the status of each case.

Regardless of the data challenges, in June of 2013 the US Preventative Services Task Force recommended that all people born between 1945 and 1965 been screened for Hepatitis C. This recommendation combined with the relatively large number of Gallatin County residents who do not yet know they are infected provides ample rationale and motivation to increase public outreach and education efforts, particularly to people in the “Baby Boom” generation. It is also important to keep in mind that the Department may see an increase in diagnosed cases in 2014 as rising numbers of people are screened.

Pertussis

	2013	2012
Pertussis	26	28

Pertussis is a highly infectious bacterial infection. It is spread by droplets (when an infected person coughs or sneezes) and is particularly dangerous when contracted by young children who are not yet 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.

In 2013, Montana had the highest rate of pertussis in the United States at 63.3 cases/100,000 people. Cases spanned the ages of 12 month to 36 years old, with the average age being 13. The data shows that 46% of the cases were between ages 10 and 16. Half of the cases were diagnosed in April, May and June. It is likely that the recent resurgence of pertussis nationwide is due, at least in part, to the rising number of parents electing to forego immunization recommendations.

In recent years, perhaps few, if any, communicable diseases have consumed more resources for local health departments than pertussis. This is due, in part, to the intensive contact investigation necessary to mitigate spread of the disease. To address this issue, the Health Department will continue to actively and energetically stress the importance of immunizations as the best form of prevention. The Department also intends to continue its effort to encourage schools to implement practices (such as seating charts) designed to assist in outbreak investigations and efforts to inform parents of the risks associated with immunizations exemptions.

Gastrointestinal Illness

This graph shows reportable gastrointestinal (GI) diseases in Gallatin County by month during 2013. Campylobacter was the most frequently reported of the GI disease in 2013 with 25 cases. Of

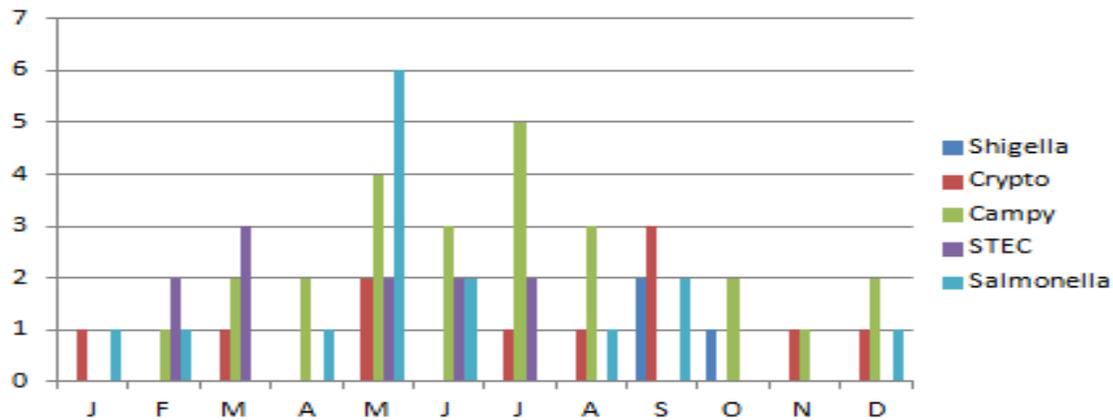


those 25 cases, 5 can be attributed to international travel and 4 can be attributed to drinking untreated water.

In May, 6 cases of salmonella were reported. Salmonella is a bacteria commonly found in undercooked chicken, beef or pork. Of those 6 cases, three were commonly exposed to sick baby chicks. Two of the 14 Salmonella cases in 2013 were exposed during international travel.

Cases diagnosed in May, June and July accounted for 47% of total GI cases for the year. The Department continues to investigate why these three months account for almost half of the reported cases. Some possible reasons could be increased travel during the summer months, increased exposure to recreational water and animals.

2013 GI Disease cases by month



References:

2012 STD Surveillance Chlamydia | CDC. (n.d.). Retrieved June 24, 2014, from <http://www.cdc.gov/std/stats12/chlamydia.htm>

CDC. (2014, March 20). 2013 Provisional Pertussis Surveillance Report. Retrieved June 24, 2014, from <http://www.cdc.gov/pertussis/downloads/pertussis-surveillance-report.pdf>

Heymann, D. L. (2008). *Control of Communicable Diseases Manual* (19th ed.). Washington, DC: American Public Health Association.

U.S. Preventive Services Task Force: Final Recommendation Statement. (n.d.). Retrieved June 24, 2014, from <http://www.uspreventiveservicestaskforce.org/uspstf12/hepc/hepcfinalrs.htm>

