#### Marion County Reportable Disease and Condition Summary, 2016





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#### Reportable Diseases and Conditions in Marion County, 2016

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Disease/Condition	# of cases
Chlamydia	1740
Animal Bites	600
Chronic Hepatitis C	487
Gonorrhea	347
Campylobacteriosis	64
Latent Tuberculosis	62
Syphilis	53
Pertussis	35
Salmonella	31
Elevated Blood Lead Levels	26
Chronic Hepatitis B	22
E. Coli (STEC)	18
Giardiasis	17
CRE	16
HIV	10
Cryptosporidiosis	11
Haemophilus influenzae	9
Mumps	8
Shigellosis	8
Zika	6
Coccidioidomycosis	5
Cryptococcus	5
NTM	5
Legionella	4
Tuberculosis	4
Acute Hepatitis C	3
Listeriosis	3
PID	3
Dengue	2
Lyme	2
Malaria	2
Meningitis	2
Salmonella Typhoidal	2
Acute Flaccid Myelitits	1
Acute Hepatitis B	1
Hepatitis D	1
Ehrlichiosis	1
Hepatitis A	1
Q Fever	1
Total	3618

•This table shows all reportable cases of disease, infection, microorganism, and conditions in Marion County in 2016.

•The 3 most reported diseases/conditions in Marion County in 2016 were Chlamydia, Animal Bites, and Chronic Hepatitis C.

•Health care providers report all cases or possible cases of diseases, infections, microorganisms and conditions within certain time frames as specified by the state health department, Oregon Health Authority.

•A full list of Oregon reportable diseases and conditions are available <u>here</u>

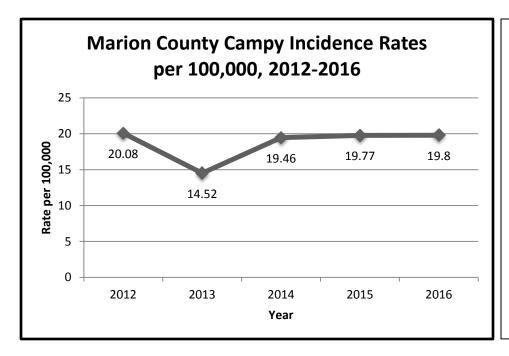
# Campylobacter (Campy)

-Campylobacteriosis is an infectious illness caused by a bacteria.

-Most ill people have diarrhea, cramping, stomach pain, and fever within 2-5 days after bacteria exposure. People are usually sick for about a week.

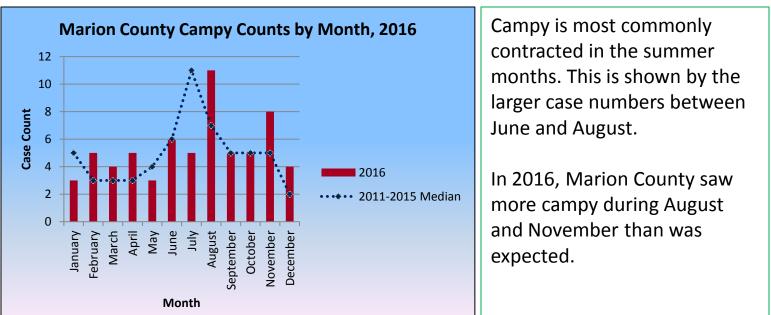
-Most cases of campy are associated with eating raw or undercooked poultry, unpasteurized dairy products, or contaminated water.

-To help prevent campy, cook all poultry products thoroughly, wash hands with soap before preparing food, and after handling raw meat. Use separate cutting boards for meat and other foods, and thoroughly clean all surfaces after contact with raw meat. Do not drink unpasteurized milk or untreated water. Wash hands with soap after using the bathroom and after cleaning up after pets.



The incidence rate for campy in Marion County has remained fairly stable over the past five years with an average of about 56 cases per year.

Marion County has a higher incidence rate of campy than the United States (14 per 100,000).



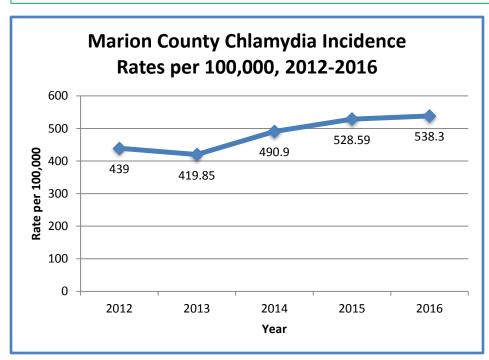
## Chlamydia

-Chlamydia is a bacterial sexually transmitted infection.

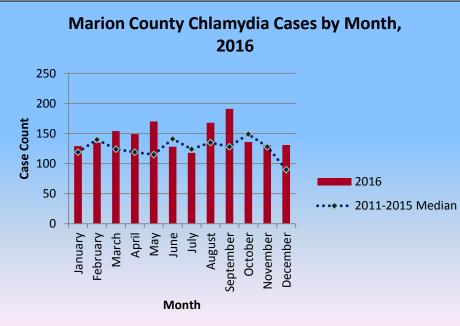
-Most people with Chlamydia do not have symptoms, but even without symptoms, Chlamydia can still damage the reproductive system.

-Chlamydia is transmitted through all types of sexual contact (vaginal, anal and oral sex), as well as from a pregnant mother to her baby during childbirth.

-To reduce risk of Chlamydia infection, reduce your number of sexual partners, know if sexual contacts have been tested and treated for Chlamydia, and use latex condoms the right way every time you have sex. The only way to avoid Chlamydia is to not have vaginal, anal, or oral sex or to be in a long-term monogamous relationship where both partners have been tested and have not been exposed to other sexual contacts.



Marion County Chlamydia incidence rates have been increasing since 2013, averaging about 1,700 cases of Chlamydia each year.



Due to an increase in incidence rates in Chlamydia, Marion County saw more Chlamydia cases than expected for about half of the months of 2016.

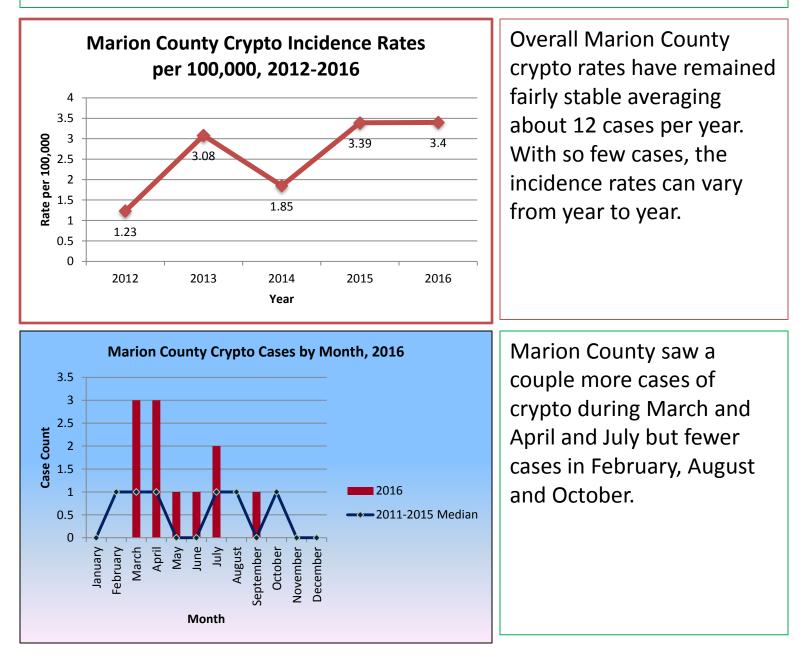
# Cryptosporidiosis (Crypto)

-Cryptosporidium is a parasite that causes cryptosporidiosis (crypto)

-Most people with crypto have watery diarrhea, and may also have stomach cramps, stomach pain, dehydration, nausea, vomiting, fever, and weight loss about 2-10 days after becoming infected with the parasite. Symptoms usually last about 1-2 weeks.

-Most cases of crypto are associated with consuming something that has come into contact with stool contaminated with crypto, swallowing water contaminated with crypto, swallowing water or a beverage contaminated with infected stool, eating uncooked food contaminated with crypto or touching the mouth with hands that are contaminated with crypto from another source (contaminated surface, diaper changing, etc.).

-To help prevent crypto wash hands before cooking and eating, after using the toilet, after changing diapers, before and after caring for someone who is ill with diarrhea, after handling an animal (particularly its stool), and after gardening. Keep children with diarrheal illness home from child care until diarrhea has stopped. Do not swim if ill with diarrhea. Do not swallow recreational water.



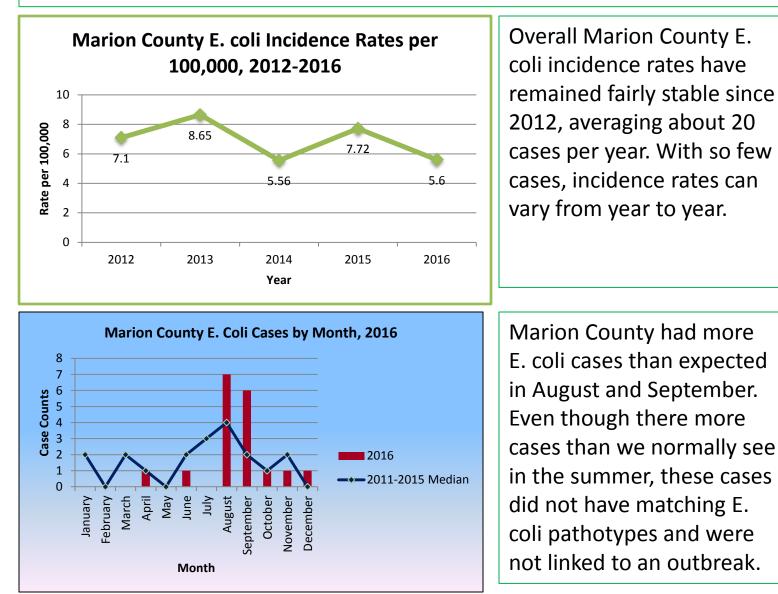
#### E. coli

-E. coli are bacteria that live in intestines of humans and animals. Most E. coli are an important part of a healthy intestinal tract, but some E. coli are pathogenic to humans, meaning they cause sickness. The most common type of pathogenic E. coli are Shiga toxin-producing (STEC) E. coli. These are the bacteria most commonly heard about in the news.

-Most people with STEC E. coli have stomach cramps, and bloody diarrhea within 3-4 days of exposure to the bacteria. Symptoms usually last for 5-7 days.

-Most STEC E. coli live in the intestines of livestock or game like cows, goats, sheep, deer and elk. Consuming raw or undercooked meat can cause an STEC E. coli infection. Additionally, eating foods contaminated with human or animal feces like unpasteurized milk, untreated water, unpasteurized apple cider, soft cheeses made with unpasteurized milk, and some leafy greens. Petting zoos and other interactive animal exhibits have also been linked to E. coli infection.

-To help prevent E. coli infection wash your hands with soap and water after using the bathroom, changing diapers, before preparing food, before eating, and after contact with animals. Cook all meat thoroughly. Don't drink unpasteurized milk or juices. Prevent cross-contamination by washing counters, cutting boards and utensils that touch raw meat.



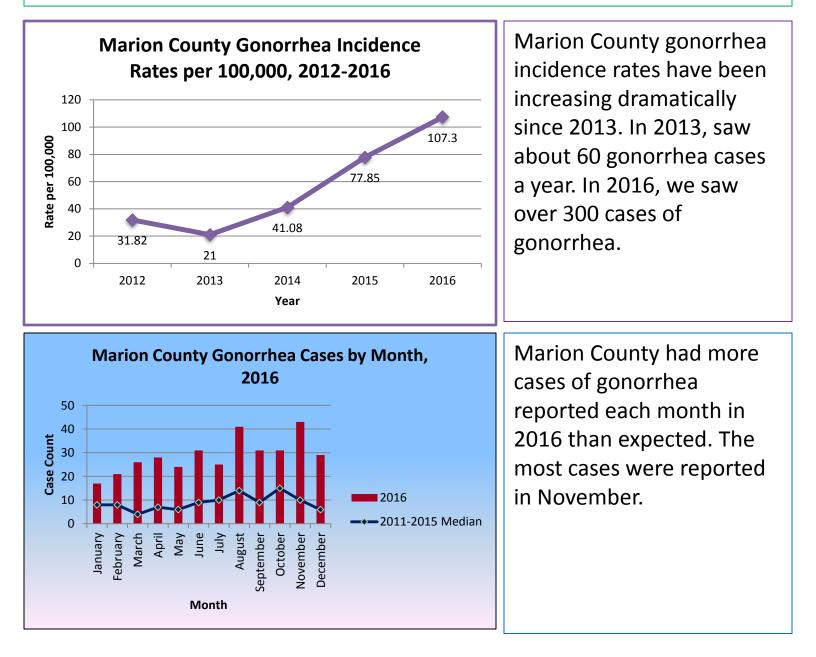
#### Gonorrhea

-Gonorrhea is a bacterial sexually transmitted infection.

-Most people with gonorrhea do not have symptoms. Those who do have symptoms may experience any of the following symptoms based on location of infection: a burning sensation when urinating, genital or anal discharge, bleeding between periods for women, swollen or painful testicles for men, rectal itching, soreness or bleeding or painful bowel movements.

-Gonorrhea is spread through vaginal, anal or oral sex. A pregnant woman with gonorrhea can give the infection to her baby during childbirth.

-To reduce risk of gonorrhea infection, reduce your number of sexual partners, know if sexual contacts have been tested and treated for gonorrhea, and use latex condoms the right way every time you have sex. The only way to avoid gonorrhea is to not have vaginal, anal, or oral sex or to be in a long-term monogamous relationship where both partners have been tested and have not been exposed to other sexual contacts.



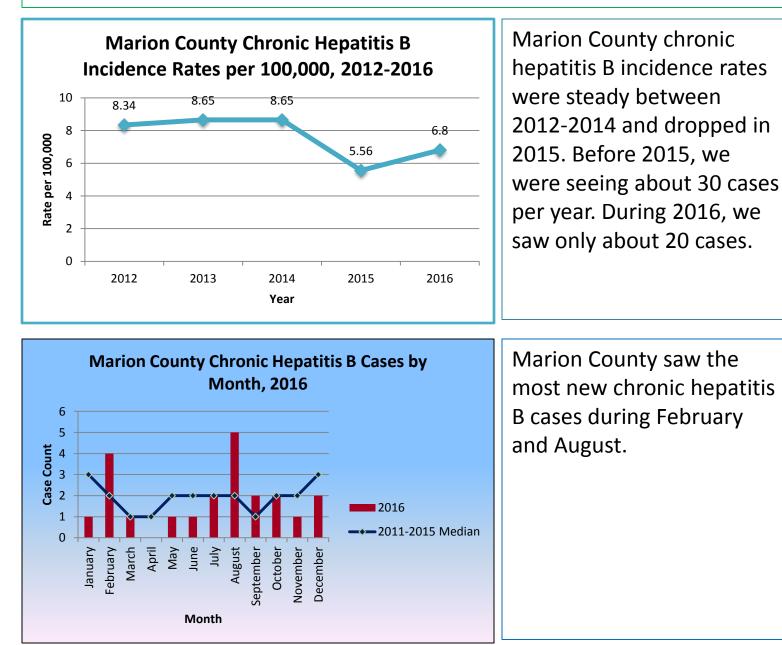
### Chronic Hepatitis B

-Hepatitis B is a virus that can cause short and long term illness. When the virus remains in the body it becomes a chronic illness that can result in long-term liver problems.

-Some people with chronic Hepatitis B have ongoing symptoms similar to acute Hepatitis B (fever, tiredness, loss of appetite, nausea, vomiting, stomach pain, dark urine, clay colored stool, joint pain and yellowing of the eyes or skin), but most people with chronic Hepatitis B don't have any symptoms for 20-30 years. About 1 in 4 people with chronic Hepatitis B develop cirrhosis or liver cancer.

-Hepatitis B is spread when a body fluid (blood, semen, etc.) that is infected with Hepatitis B enters the body of a person who is not infected. Some common activities that spread Hepatitis B are birth (from an infected mom to her baby), sex with an infected partner, sharing needles, syringes or other drug-injection equipment, sharing items like a toothbrush or razor with an infected person, direct contact with the blood or open sores of an infected person, or exposure to blood from a needle stick or other sharp instruments.

-The best way to prevent Hepatitis B infection is to complete the Hepatitis B vaccine series.

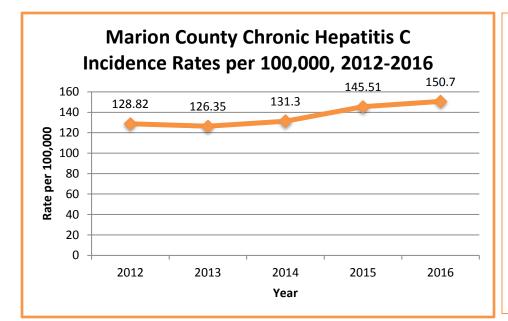


### Chronic Hepatitis C

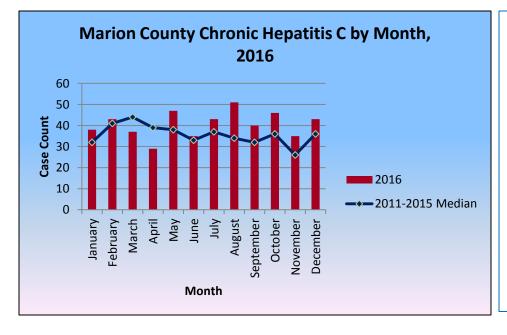
-Hepatitis C is a virus that can cause short and long term illness. When the virus remains in the body it becomes a chronic illness that can result in long-term health problems and even death. Chronic illness occurs in 75%-85% of people infected with Hepatitis C.

-Most people with chronic hepatitis C do not have symptoms. Over time chronic hepatitis C virus can cause liver damage, liver failure, liver cancer, and even death.

-Hepatitis C is spread when blood from a person infected with Hepatitis C enters the body of someone who is not infected. Today, in the United States, most people become infected with Hepatitis C virus by sharing needles or other injection drug equipment. Other possible infection methods include accidental needle sticks, being born to a mother who has Hepatitis C, sharing personal items such as razors or toothbrushes, and having sexual contact with a person infected with the Hepatitis C virus.



Marion County chronic hepatitis C incidence rates have remained fairly stable over the past five years, with about 500 cases reported per year.



Marion County experienced about the expected number of chronic hepatitis C cases each month of 2015. August was the only month with many more cases than expected.

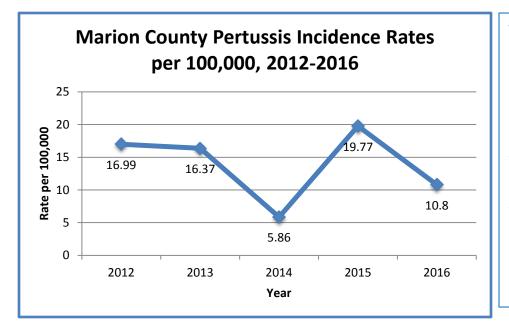
#### Pertussis

-Pertussis (whooping cough) is a very contagious, bacterial, respiratory disease.

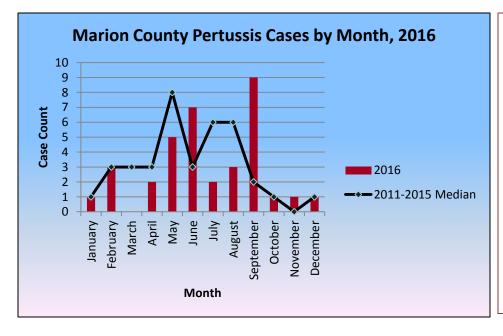
-Most people with pertussis start with a runny nose, low-grade fever, and a mild cough which progresses into coughing fits followed by a high-pitched whoop, throwing up during or after coughing fits, and exhaustion after coughing fits.

-Pertussis can be spread when a person with pertussis coughs, sneezes, or spends a lot of time near someone (close enough to share breathing space)

-The best way to prevent pertussis is to get vaccinated. Additionally, it is recommended to keep babies away from infected people.



The Marion County pertussis incidence rate was lower in 2016 than it was in 2015. This drop is likely due to several pertussis outbreaks at schools that happened during the 2014-2015 school year and the fact that there were not any pertussis outbreaks in 2016.



Marion County saw more pertussis in June and September than expected in the Marion County but less pertussis in March, July and August than expected.

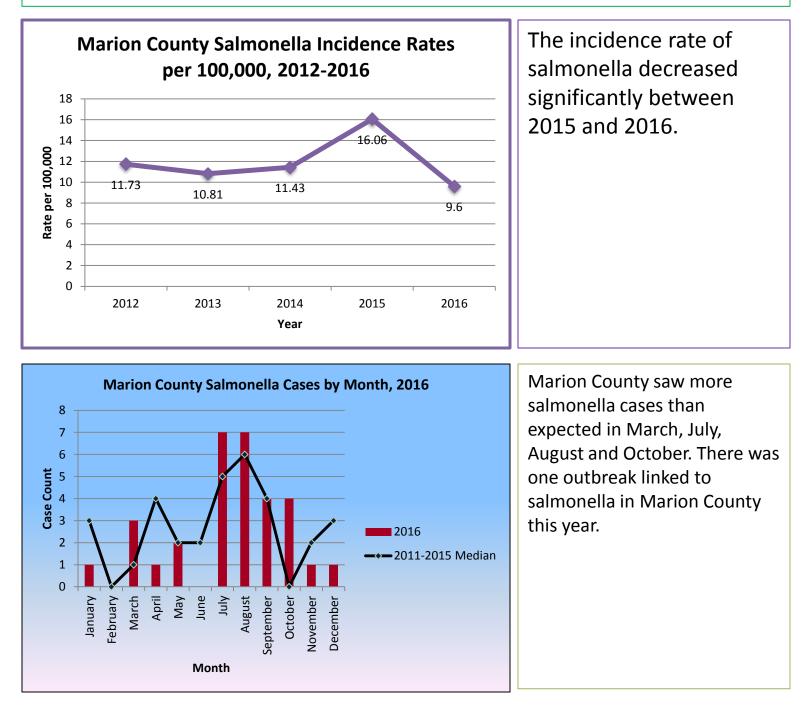
#### Salmonella

-Salmonella is a bacteria that makes people sick.

-Most people with salmonella have diarrhea, fever, and stomach cramping.

-Salmonella is most commonly associated with foods of animal origin like eggs, poultry and other meats. It has also been found in unpasteurized dairy products and other produce. It can be spread through cross-contamination of hands, cutting boards, counters, and knives. Salmonella cases have also been associated with having contact with animal feces, handling reptiles, handling chicks and ducklings and other livestock.

-The best way to prevent salmonella infection is to thoroughly cook poultry, ground beef, and eggs. Do not eat food or drink beverages that contain raw eggs or raw milk. Wash hands, kitchen work surfaces and utensils thoroughly after they have been in contact with raw meat or poultry. Avoid direct contact between reptiles and infants.



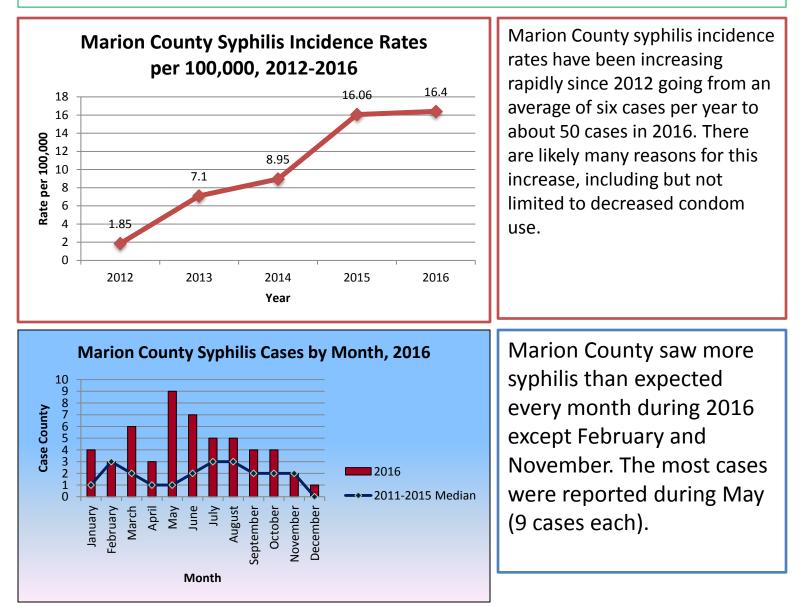
#### Syphilis

-Syphilis is a bacterial sexually transmitted infection. It can have very serious complications if left untreated, and is described in different stages of disease.

-The main symptom during the first stage of syphilis is one or more painless sore(s) called chancres located where the bacteria entered the body. Symptoms during the secondary stage of syphilis include, skin rashes and/or sores in the mouth, vagina or anus, fever, swollen lymph nodes, sore throat, hair loss, headaches, weight loss, muscle aches, and feeling tired. People who are not treated during the first or second stage of syphilis continue into latent syphilis. Latent syphilis has no symptoms, but the bacteria is still alive in the body. Those who remain untreated and progress into late stage syphilis may have symptoms like difficulty coordinating muscle movements, paralysis, loss of feeling in body parts, blindness, and dementia. During late syphilis the infection damages internal organs and can lead to death.

-Syphilis is spread through direct contact with a syphilis sore during vaginal, anal, or oral sex. Syphilis can also be spread from an infected pregnant woman to her unborn baby resulting in congenital syphilis. Congenital syphilis can cause miscarriage, stillbirth or infant death shortly after birth. Babies born with congenital syphilis can have deformed bones, anemia, enlarged liver and spleen, jaundice, blindness, deafness, meningitis and skin rash.

- To reduce risk of syphilis infection, reduce your number of sexual partners, know if sexual contacts have been tested and treated for syphilis, and use latex condoms the right way every time you have sex. The only way to avoid syphilis is to not have vaginal, anal, or oral sex or to be in a long-term monogamous relationship where both partners have been tested and have not been exposed to other sexual contacts.



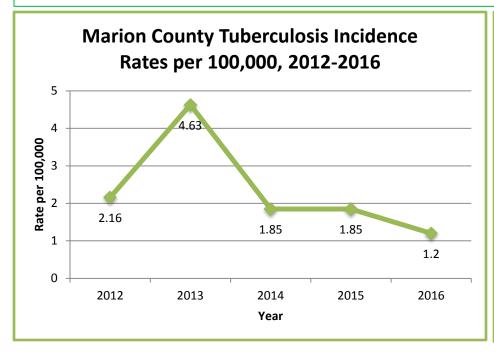
#### Tuberculosis

-Tuberculosis is a disease caused by a bacteria that usually attacks the lungs. If not treated properly, it can be deadly.

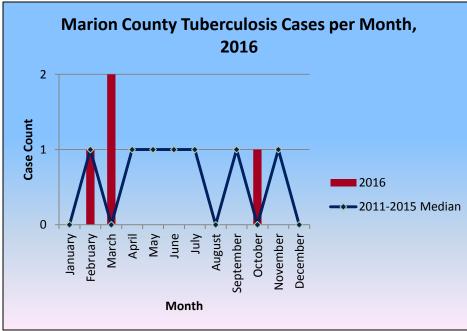
-Most people with tuberculosis in their lungs will have a bad cough for three weeks or longer, chest pain, and will cough up blood or sputum. Other symptoms include weakness, weight loss, loss of appetite, chills, fever and night sweats.

-Tuberculosis is spread when someone with tuberculosis in their lungs coughs, sneezes, sings or speaks near other people.

-To help prevent tuberculosis infection people should avoid close contact or spending lots of time with known tuberculosis patients in enclosed environments.



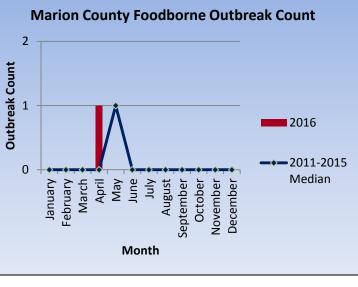
Marion County tuberculosis incidence rates have been fairly steady not including the spike in 2013, which was related to a suspected tuberculosis cluster, or a group of tuberculosis cases with the same tuberculosis DNA fingerprint.

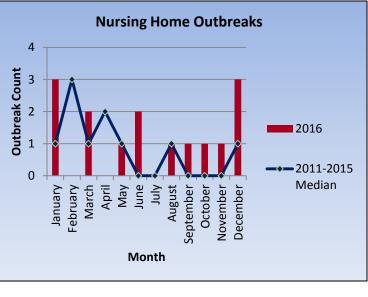


Marion County saw fewer tuberculosis cases between April and July, and in the months of September and November than expected and more cases during March and October than expected. Overall, this resulted in the same number of tuberculosis cases as expected for 2015.

#### Outbreaks 2016

Month	Etiology	Setting	# Affected	N
January	Influenza A	Nursing Home	8	
	Unknown	Nursing Home	25	2
	Influenza B, Influenza A	Other	15	unt
	Sapovirus	Nursing Home	11	Outbreak Count
March	Norovirus	Nursing Home	18	orea ⊤
	Unknown	Other	34	Outk
	Unknown	Other	6	
	Norovirus	Restaurant	20	0 -
	Norovirus	Nursing Home	26	
April	Influenza B	Other	12	
	Norovirus	Restaurant	6	
Мау	Norovirus	Nursing Home	15	
	Rhinovirus	Other	2	
	Unknown	Other	7	
June	Unknown	Other	4	
	Norovirus	Nursing Home	34	
	Norovirus	Nursing Home	22	4 -
August	Norovirus	Nursing Home	6	
September	Coxsackievirus	Other	17	- 2 Outbreak Count - 1 1
	Unknown	Nursing Home	8	2 - 2 ak
	Salmonella	Other	3	brea
October	Unknown	Other	37	<b>1</b> - 0
	Norovirus	Nursing Home	14	0 -
November	Mumps	Other	4	0 1
	Norovirus	Nursing Home	48	
	Unknown	Other	11	
December	Influenza A	Nursing Home	9	
	Unknown	Nursing Home	23	
	Influenza A	Nursing Home	7	
	al Affected by Outbreaks:		452	
Tota	al Affected by Norovirus:		209	





An outbreak is loosely defined as more cases of disease than expected in a population in a specific place within a given time period. The communicable disease team at Marion County Public Health Department investigates all outbreaks and works with Marion County Environmental Health and the Oregon Health Authority as necessary to address the outbreak. Typically, Marion County sees about 8 outbreaks a year at nursing homes or long term care facilities and between 1 and 5 outbreaks at restaurants. The most common outbreak cause is norovirus, a very contagious virus that causes stomachache, nausea, diarrhea and vomiting. Norovirus by itself is not a reportable disease but in 2016, 46.2% of outbreak cases were affected by norovirus. Like other disease causing agents, the best way to prevent transmission of norovirus is to practice good hand washing and remain home when ill with diarrhea and/or vomiting. Other etiologic agents involved in outbreaks during 2016 were salmonella, influenza A, influenza B, sapovirus, rhinovirus, coxsackievirus, and mumps.