



2020
Communicable
Disease Report

Genesee County

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Introduction

What is a communicable disease?

A communicable disease is a disease or illness that is spread through direct or indirect contact with an infectious agent or an infected individual. Most communicable diseases are caused by viruses or bacteria that are spread through direct contact, droplet transmission, airborne transmission, through a vector such as animals, or through a vehicle such as contaminated food.

2020 Report

The 2020 Communicable Disease Report will provide an overview of 31 selected reportable diseases over the last 5 years, as well as present a 5-year average to compare to data from 2020. This report will include foodborne, vectorborne, sexually-transmitted, and vaccine-preventable diseases. Further insight will be given on diseases such as HIV, Hepatitis, and Novel Coronavirus COVID-19.

Michigan Disease Surveillance System (MDSS)

All data presented in this report was collected from the Michigan Disease Surveillance System. MDSS is a web-based communicable disease reporting system which assists local, state, and federal public health agencies with the secure transfer, maintenance, and analysis of communicable disease information. Disease information was also gathered from the Michigan Department of Health and Human Services website (www.michigan.gov) and the Center of Disease Control and Prevention Website (www.cdc.gov).

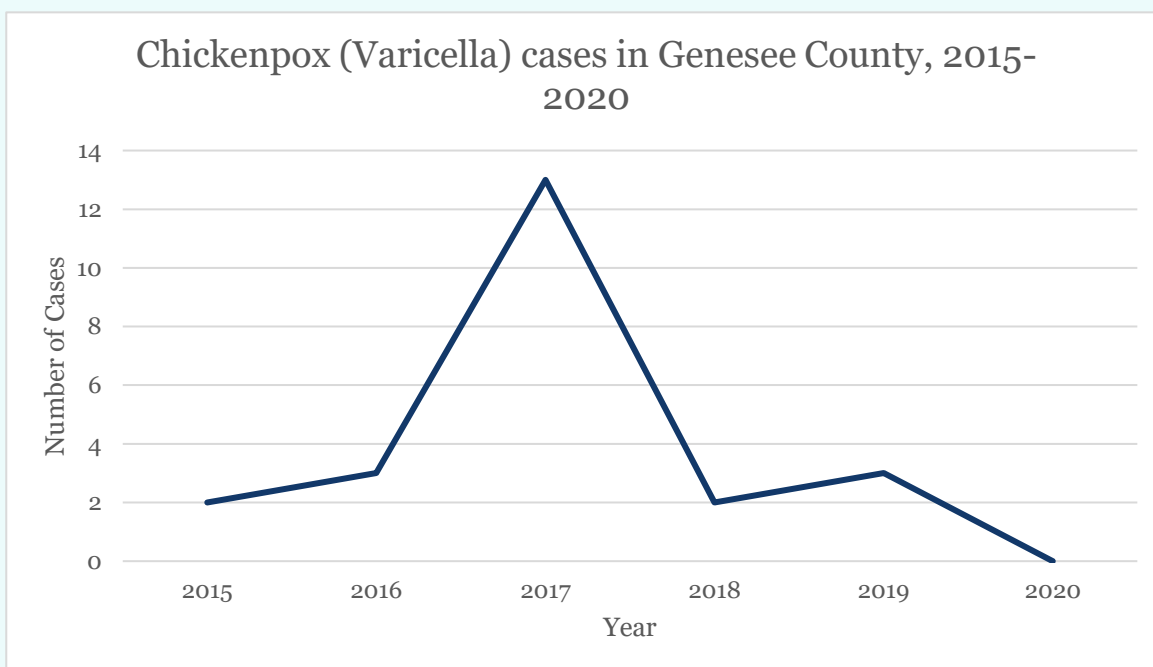
Selected Reportable Diseases in Genesee County

Disease	2015	2016	2017	2018	2019	5- Year Average	2020
Novel Coronavirus COVID-19	0	0	0	0	0	0	18790
Campylobacteriosis	19	20	22	31	22	23	19
Chickenpox (Varicella)	2	3	13	2	3	5	0
Chlamydia (Genital)	2790	2661	2806	2773	2928	2792	2825
Cryptosporidiosis	18	20	9	21	14	16	6
Giardiasis	12	6	14	12	10	11	13
Gonorrhea	885	988	951	907	1086	963	1715
H. influenzae Disease - Inv.	4	12	11	5	4	7	5
Hepatitis A	0	4	11	22	2	8	1
Hepatitis B, Acute	4	2	4	13	11	7	4
Hepatitis B, Chronic	13	17	21	17	11	16	4
Hepatitis C, Acute	2	4	7	12	5	6	7
Hepatitis C, Chronic	345	264	243	228	186	253	115
HIV (new diagnoses)	27	36	34	24	34	31	23
Influenza	251	336	921	1509	903	784	1223
Legionellosis	46	18	13	26	28	26	28
Listeriosis	1	0	2	1	3	1	0
Lyme Disease	0	1	0	1	4	1	5
Measles	0	0	0	0	0	0	0
Meningitis - Aseptic	62	49	44	80	32	53	9
Meningitis - Bacterial Other	5	6	9	6	7	7	5
Meningococcal Disease	0	0	0	0	0	0	0
Mumps	0	0	0	0	0	0	0
Pertussis	10	2	9	17	22	12	3
Salmonellosis	33	42	19	38	33	33	40
Shiga toxin-producing Escherichia coli --(STEC)	2	6	3	5	4	4	2
Shigellosis	19	83	4	5	5	23	2
Streptococcal Dis, Inv, Grp A	8	18	19	20	20	17	16
Streptococcus pneumoniae, Drug Resistant	0	0	10	17	8	7	2
Streptococcus pneumoniae, Inv	43	29	26	21	19	28	25
West Nile Virus	0	0	1	2	0	1	0

Communicable Disease Summaries

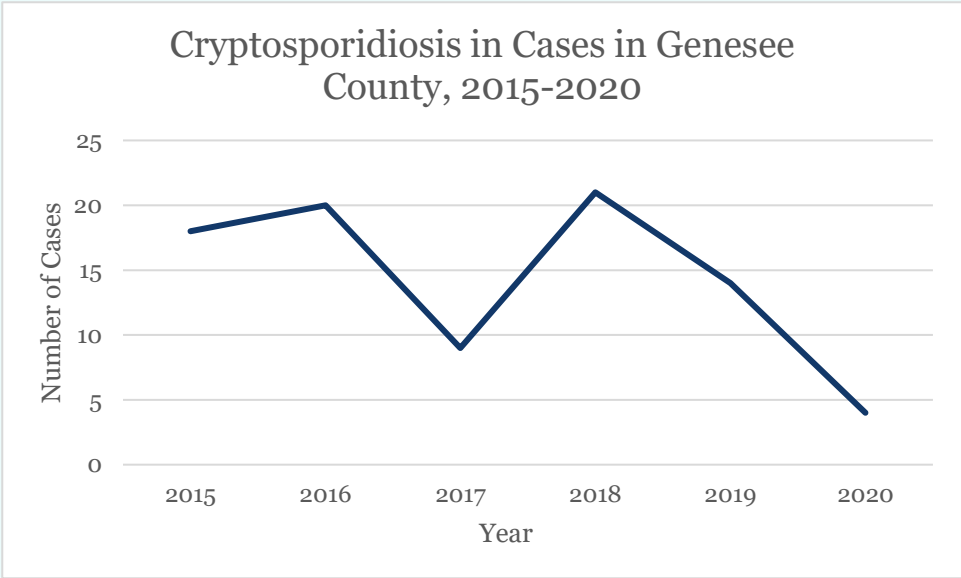
Chickenpox (Varicella)

Chickenpox is a highly contagious disease caused by the varicella-zoster virus. The defining symptom of chickenpox is the development of a body-wide rash that eventually turns into itchy blisters. The varicella vaccine serves as the best method to reduce transmission; according to the CDC, the vaccine is 90% effective at preventing cases. Between 2015 and 2019, the average yearly cases of chickenpox reported in Genesee County was 5. In comparison, 0 cases of chickenpox were reported in MDSS in 2020.



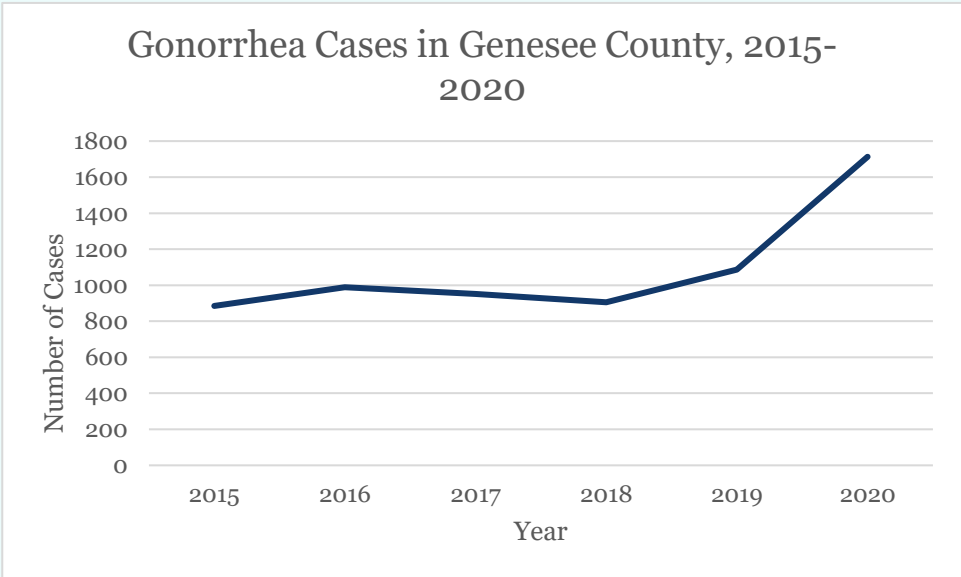
Cryptosporidiosis

Cryptosporidiosis is a diarrheal disease caused by the microscopic parasite *Cryptosporidium*; it is the most common waterborne illness. Transmission occurs through the fecal-oral route, most commonly through ingestion of contaminated water. Prevention practices include hand hygiene and avoiding ingestion of untreated water. To avoid spreading the disease, it is best to refrain from swimming if sick with diarrhea. Compared to the 5-year average between 2015 and 2019, reported cases of Cryptosporidiosis were over 60% lower in Genesee County in 2020.



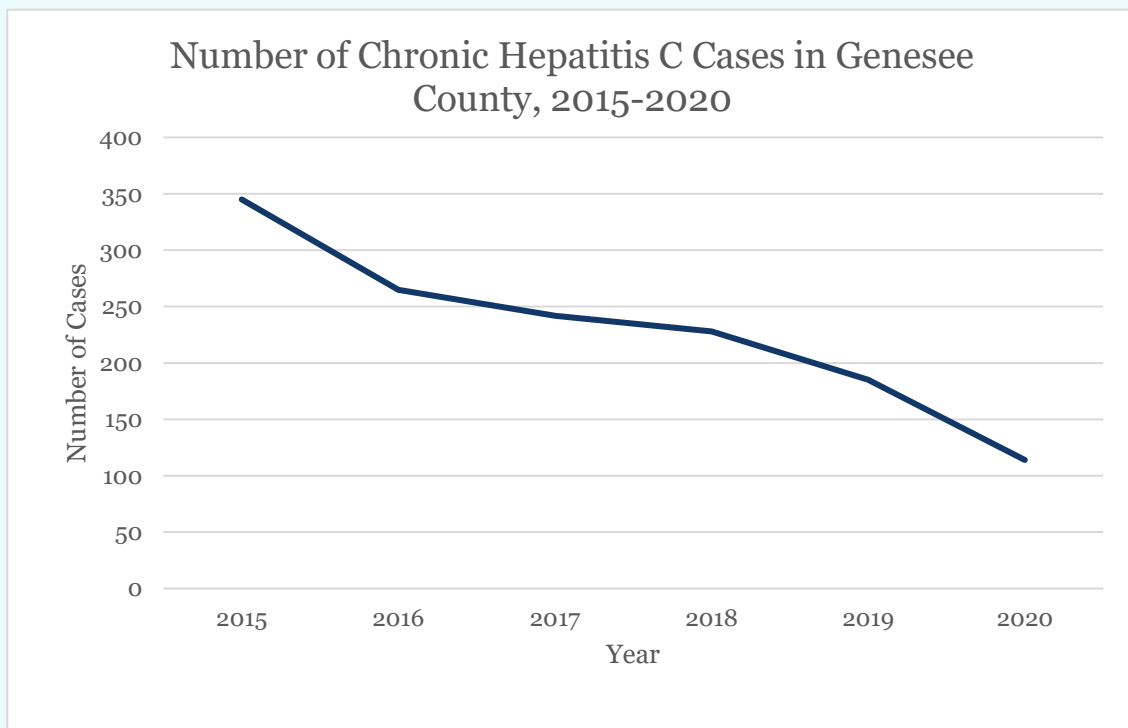
Gonorrhea

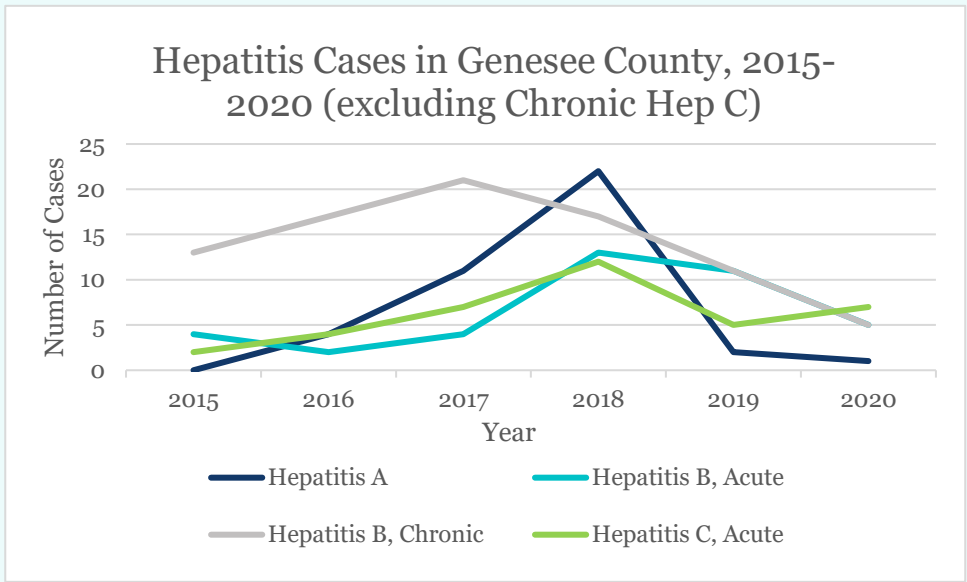
Gonorrhea is a sexually transmitted disease caused by the bacterium *Neisseria gonorrhoeae*, which results in infections of the genitals, rectum, and throat. Any sexually active individual can contract gonorrhea through unprotected sex. Condom use can prevent transmission. In 2020, 1,713 Gonorrhea cases were reported in Genesee county – a significant increase from the 5-year average of 963.



Hepatitis

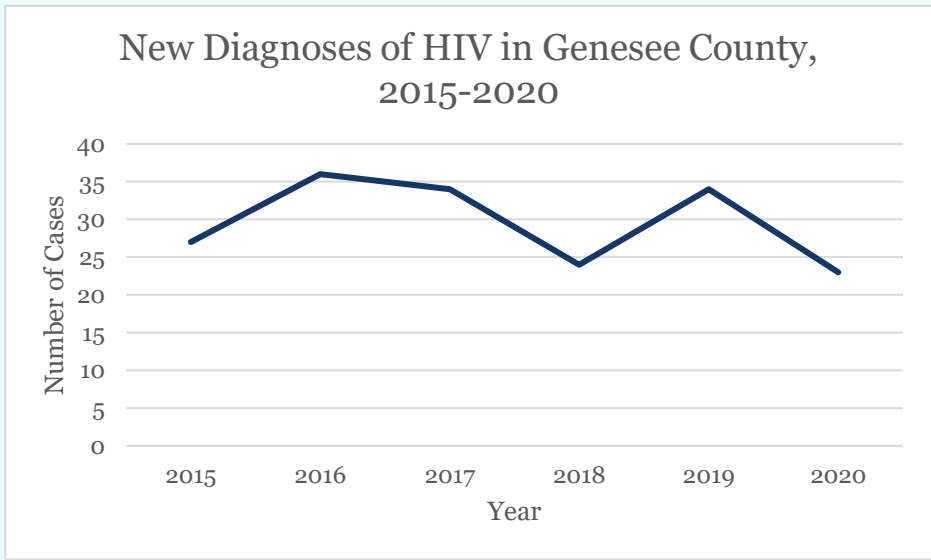
Hepatitis is inflammation of the liver often caused by one of several *Hepatitis* viruses. The 3 most common types of *Hepatitis* virus are A, B, and C. Hepatitis A infection occurs through the fecal-oral route, and thus transmission often occurs after ingestion of contaminated food or drink. Hepatitis B and C are spread through contact with blood from an infected individual, and Hepatitis B can also be spread through other bodily fluids such as semen. Hepatitis B and C may also become chronic if the infection persists beyond six months. Vaccination can decrease the risk of infection from Hepatitis A and Hepatitis B; There is no vaccination for Hepatitis C. Hand hygiene, especially amongst food workers, is key to preventing Hepatitis A transmission. Hepatitis B and C are often spread through sharing of contaminated needles during drug injection. In Genesee County, cases of Hepatitis A and B have decreased in 2020 compared to the average of the 5 years prior. Acute cases of Hepatitis C have increased slightly in 2020 compared to 2019, whereas chronic cases have decreased by over 50% compared to the 5 year average from 2015-2019.





HIV

Human Immunodeficiency Virus (HIV) is a disease that weakens an individual’s immune system by infecting and destroying “Helper T” immune cells. There is currently no cure for HIV; however, disease progression can be controlled through proper medical treatment. HIV is spread through bodily fluids such as blood, semen, and breast milk. There are several methods to prevent the contraction of HIV such as abstaining from sex, using condoms, taking Pre-Exposure Prophylaxis, and never sharing needles or other drug injecting equipment. In Genesee County, cases of HIV in 2020 were lower than any of the 5 years prior. Also, compared to the 5 year average, cases of HIV decreased by 25% in 2020.



Novel Coronavirus COVID-19

COVID-19 is a highly contagious disease caused by the SARS-CoV-2 virus which was discovered in December of 2019. COVID-19 usually causes respiratory symptoms similar to the cold or flu, but infections may develop in severity, resulting in hospitalization, long-term complications, and/or death. Since the global pandemic of COVID-19 began in early 2020, there have been nearly half a billion cases worldwide, resulting millions of deaths. In Genesee County alone, 18,790 cases of COVID-19 were reported in 2020. Vaccination is an effective form of prevention, and is particularly useful for preventing severe infections. Other prevention methods include wearing a mask, staying 6 feet apart from individuals outside of your household, washing your hands often, and disinfecting frequently touched surfaces.