



Reportable Communicable Disease Case Counts Among Cambridge Residents, 2012–2016

Under Massachusetts law, approximately 80 communicable diseases are reportable by health care providers and laboratories to local boards of health. State and local public health departments monitor communicable disease cases in order to ensure proper identification and follow-up of cases; detect and respond to unusual occurrences of diseases; identify trends over time; and evaluate the effectiveness of disease prevention and control efforts. Communicable disease case reports come to the public health department’s attention through the Massachusetts Virtual Epidemiologic Network (MAVEN), a web-based communicable disease surveillance system, which has the ability to accept electronic laboratory reports.¹

Reportable diseases for which there were no cases over five years are not included in this table. The following case counts are a snapshot of disease burden and likely an underrepresentation of the true number of communicable diseases among Cambridge residents; not every infected individual seeks medical care or has laboratory testing done, and interpreting laboratory tests can be complex in certain cases. Additionally, trends over time may not reflect true increases or decreases due to possible changes in reporting or laboratory testing and should be interpreted with caution.

For more information, please contact the Cambridge Public Health Department’s Division of Epidemiology & Data Services at epidept@challiance.org.

Disease ¹ <i>Top 5 most frequent diseases among Cambridge residents based on five-year average are marked with ♦</i>	Year					Five-Year Average
	2012	2013	2014	2015	2016	
Amebiasis	4	2	1	1	1	2
Arbovirus (other)	0	0	3	1	0	1
Babesiosis	3	1	5	3	6	4
Calicivirus/Norovirus	1	1	2	2	7	3
♦ Campylobacteriosis	34	35	45	34	30	36
Cryptosporidiosis	2	0	5	2	0	2
Cyclosporiasis	0	0	2	0	0	0
Dengue Fever	1	1	0	1	0	1
Enterovirus	1	1	1	0	0	1
Giardiasis	19	20	21	28	28	23
Group A streptococcus	3	2	2	3	5	3
Group B streptococcus	2	5	4	5	9	5
Haemophilus influenzae	1	2	1	3	2	2
Hepatitis A	0	1	2	1	2	1
Hepatitis B (acute)	0	1	0	1	0	0
♦ Hepatitis B (chronic)	38	38	51	34	37	40
Hepatitis C (acute)	0	1	2	2	2	1
♦ Hepatitis C (chronic)	84	68	74	75	75	75
Hepatitis E	0	0	0	1	0	0
Human Granulocytic Anaplasmosis	0	0	1	2	3	1
♦ Influenza	93	160	223	232	138	169
Invasive bacterial infection (other)	0	0	1	1	1	1

¹ <http://www.mass.gov/eohhs/gov/departments/dph/programs/id/isis/>
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Disease ¹ Top 5 most frequent diseases among Cambridge residents based on five-year average are marked with ♦	Year					Five-Year Average
	2012	2013	2014	2015	2016	
Legionellosis	1	0	3	0	0	1
Listeriosis	1	1	1	0	0	1
Lyme Disease	24	26	31	26	0	21
Malaria	2	3	1	4	1	2
Measles	0	0	2	0	0	0
Mumps ²	0	0	0	0	123	25
Pertussis (and other Bordetella species)	10	3	1	0	1	3
♦ Salmonellosis	28	21	29	27	25	26
Shiga toxin producing organism	1	4	0	1	0	1
Shigellosis	1	2	9	4	5	4
Streptococcus pneumoniae	7	7	9	4	5	6
Toxoplasmosis	1	1	1	0	0	1
Tuberculosis (active)	9	8	6	4	3	6
Tularemia	0	1	0	0	0	0
Varicella	4	5	7	6	5	5
Vibrio species	3	2	1	1	3	2
Viral Meningitis (aseptic)	0	0	2	1	0	1
West Nile Infection	6	0	1	1	4	2
Yersiniosis	0	0	0	2	1	1
Total	384	423	550	513	522	478

¹ Includes confirmed and probable case statuses for all diseases. Count is determined using event date, not the date of notification.

² A university-based mumps outbreak began in Cambridge in 2016.

Note: Data are current as of February 7, 2017, and are subject to change. Five-year averages may not total due to rounding.

Common Reportable Communicable Diseases

The following disease descriptions are for some of the most common reportable communicable diseases that occur among Cambridge residents. Descriptions are adapted from the Massachusetts Department of Public Health's infectious disease fact sheets.²

Disease

Description

Campylobacteriosis

Campylobacteriosis is caused by the *Campylobacter* bacterium, which infects the bowels of people and animals and causes diarrhea, abdominal pain, tiredness, fever, nausea, and vomiting. It is spread through contaminated food or water, although it can be spread person-to-person or animal-to-person. Symptoms commonly begin 2-5 days following exposure and usually last less than one week. However, *Campylobacter* can be spread for weeks after symptoms end.

Giardiasis

Giardiasis is caused by the *Giardia* parasite, which infects the stomach and bowels and causes diarrhea, soft stools, abdominal cramping, bloating, increased gas, weakness, loss of appetite, and weight loss. It is spread through contaminated food or water, although it can be spread person-to-person or animal-to-person. Symptoms commonly begin 7-10 days following exposure and can last several months.

² <http://www.mass.gov/eohhs/gov/departments/dph/programs/id/epidemiology/factsheets.html>

Disease	Description
Hepatitis B	Hepatitis B is a vaccine-preventable liver infection caused by the hepatitis B virus. The majority of cases are acute; however, approximately 10% of adults who get hepatitis B will go on to have a chronic infection that can cause cirrhosis and/or liver cancer. The younger a person is when infected, the more likely they are to develop a chronic infection. Hepatitis B is spread through direct contact with the blood, semen, vaginal fluids, and other bodily fluids of an infected person. It can be spread through sexual contact, sharing needles, sharing other personal items (e.g., toothbrushes, razors, lip products), direct contact with open sores of an infected person, or pregnancy (vertical transmission). Hepatitis B is not spread through casual contact or breastfeeding. Many infected persons experience few or no symptoms, but hepatitis B can cause tiredness, loss of appetite, nausea, vomiting, stomachaches, muscle or joint pain, dark urine, and jaundice (yellowing of the skin and whites of the eyes). Symptoms of acute infection commonly occur within 6 weeks to 6 months, although chronic infection may take 20-30 years to become symptomatic.
Hepatitis C	Hepatitis C is a liver infection caused by the hepatitis C virus. Unlike hepatitis B, hepatitis C is not vaccine preventable. The majority of hepatitis C cases are chronic (long term). Some cases can result in cirrhosis or liver cancer, although many others do not result in serious complications. Hepatitis C is spread through direct contact with the blood of an infected person. It can be spread through sharing needles, blood transfusions or organ donations that occurred prior to 1992, pregnancy (vertical transmission), sharing personal items that may have blood on them (e.g., toothbrushes, razors), getting non-sterile tattoos or body piercings, and poor infection control in health care and residential care facilities. Although, like hepatitis B, hepatitis C can be sexually transmitted, it is rare. Hepatitis C is not spread through casual contact. Most people infected with hepatitis C will experience mild or no symptoms at first but may develop tiredness, loss of appetite, nausea, vomiting, stomachache, muscle/joint pain, dark urine, and jaundice (yellowing of the skin and white of the eyes) within 6 weeks to 6 months.
Influenza	Influenza (flu) is a vaccine-preventable infection of the influenza virus, which infects the respiratory system, including nose, throat, and lungs. Common symptoms of influenza are fever, cough, and sore throat, although it can cause body aches, headaches, chills, runny nose, and tiredness. In pregnant women, infants, the elderly, and people with certain medical conditions, influenza can cause serious complications and even death. Symptoms generally last between 2-5 days, although they can last longer. Influenza is found in saliva and mucus and can be easily spread through coughing and sneezing. It can also live for a short period of time on objects, such as doorknobs, phones, and toys. Influenza cannot be cured by taking antibiotics.
Lyme Disease	Lyme disease is caused by <i>Borrelia burgdorferi</i> bacteria, which are spread through ticks. Symptoms can begin between 3-30 days following exposure and can persist from several weeks to many years. Early symptoms of Lyme disease include influenza-like symptoms and a distinct rash with a red area that spreads outward and clears up in the center. If untreated, Lyme disease can lead to arthritis, meningitis, Bell's palsy, other nervous system problems, and heart problems such as decreased heart rate or fainting.
Salmonellosis	Salmonellosis is an infection of the <i>Salmonella</i> bacteria that causes diarrhea, stomach cramps, fever, nausea, and sometimes vomiting. It can cause severe dehydration. <i>Salmonella</i> is spread through the ingestion of contaminated food or water and can be spread person-to-person or animal-to-person. Symptoms usually begin 12-36 hours after exposure but can begin anywhere from 6 hours to 3+ days after exposure. Salmonellosis can be infectious from several days to several months following exposure, even after symptoms end.