



Cambridge Annual Communicable Disease Report



Cambridge
Public Health
Department

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Under Massachusetts law, approximately 90 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. Diseases are reported through this system to the Cambridge Public Health Department (CPHD) for all Cambridge residents, even if a resident was tested or acquired a disease outside of Cambridge.

All reportable diseases that occurred in Cambridge residents from 2019 through 2024 are included in this report. Case counts for COVID-19 and Influenza are shown for the 2023-2024 respiratory illness season which spanned the time frame July 1, 2023 through June 30, 2024. All other case counts are reported for the calendar year 2024 and are compared to the average counts of the past 5 years (2019-2023). Cases classified as confirmed, suspect, or probable are included in the report. For confidentiality purposes, CPHD does not disclose to the public exact case counts for any reportable disease when the number is under 5. Case counts of 1-5 are shown as 2.5 in figures and "<5" in Table 1. 5-year averages of less than 1 are shown as 1 in figures and "<1" in Table 1.

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 on how this data was collected and analyzed, please contact the Cambridge Public Health Department's Division of Epidemiology & Data Services at epidept@challiance.org. More information about diseases can be found in the Massachusetts Department of Public Health's [infectious disease fact sheets](#).

Figure 1. COVID-19 Cases 2023-2024

The overall number of COVID-19 cases in Cambridge in the 2023-2024 respiratory season was 1597. The average number of cases across the last 3 respiratory seasons (2020-2021, 2021-2022, and 2022-2023) is shown to give a frame of reference, but is not an exact comparison to the case counts from this year. As stated on the [MDPH COVID-19 Report](#):

“COVID-19 testing patterns have changed over time ... Individuals testing themselves using at-home antigen tests are not included. Case counts represent only a portion of people with COVID-19 and should be interpreted with caution. Current case counts should not be compared to earlier parts of the pandemic.”

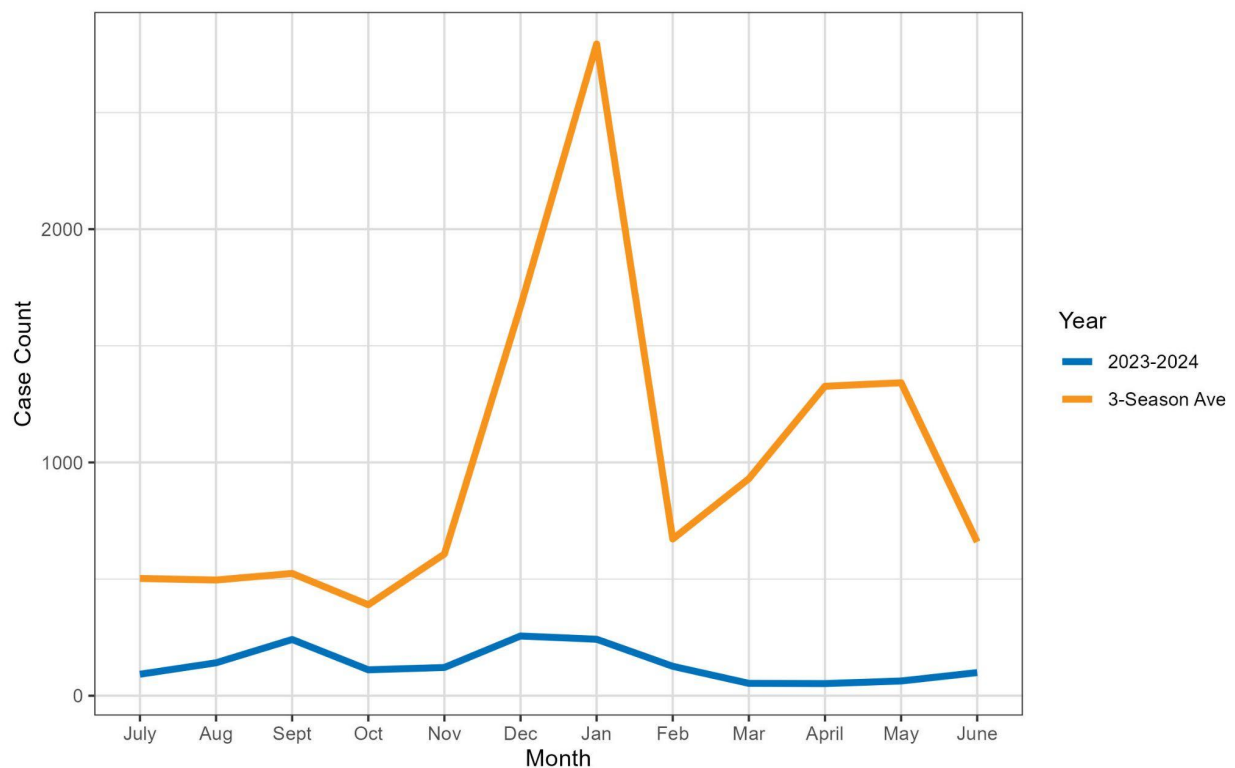


Figure 2. Influenza Cases 2023-2024 Compared to Prior Seasons

There were more Influenza cases in the 2023-2024 respiratory season compared to the average of the past 5 seasons (2018-2019 through 2022-2023). Overall, we saw 599 cases in the 2023-2024 respiratory season, compared to a 5-season average of 315 cases.

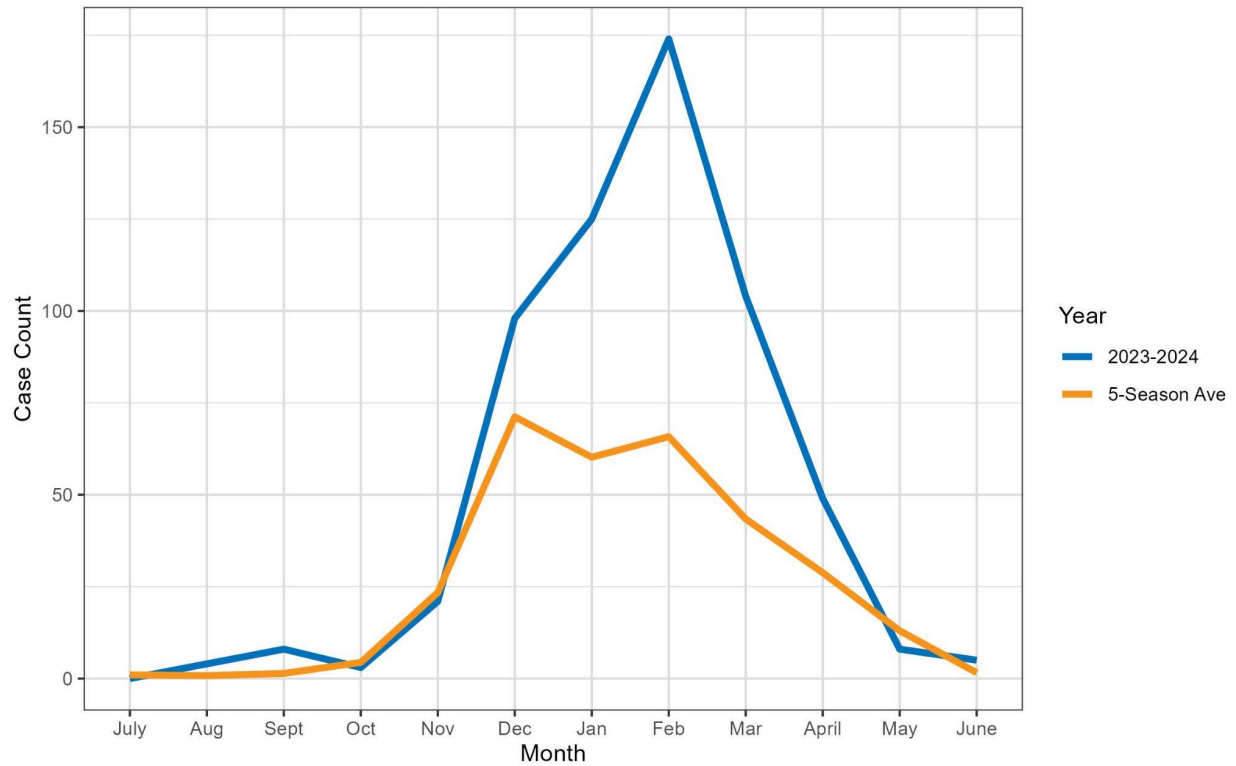
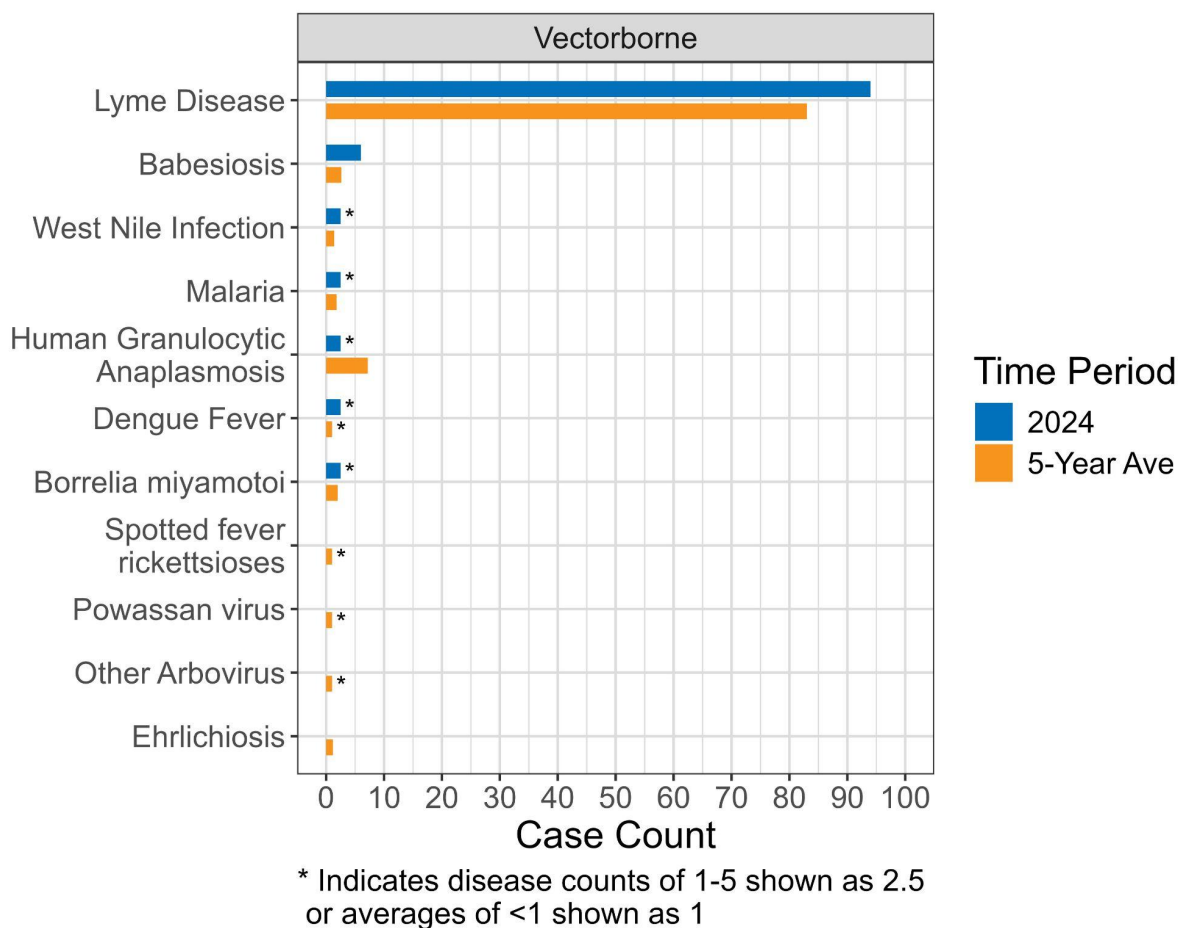


Figure 3. Vector-borne Disease Case Counts in 2024 Compared to 5-year Average.

Vector-borne diseases are infections that are transmitted by the bite of an arthropod such as a tick or mosquito. The most prevalent vector-borne disease seen in Cambridge residents in 2024 was Lyme disease, which is spread by ticks¹. Other less common tick-borne diseases were Babesiosis, Borrelia miyamotoi infection, and Human Granulocytic Anaplasmosis (HGA). Mosquito-borne diseases, or diseases spread by mosquitoes, included Malaria, Dengue Fever², and West Nile Virus.



¹ Deer ticks, the vector for Lyme disease, are rarely observed in Cambridge. These infections were likely acquired outside of Cambridge.

² Malaria and Dengue Fever have not been found in mosquitoes in Cambridge. These infections were likely acquired outside of Cambridge.

Figure 4. Food-borne Disease Case Counts in 2024 Compared to 5-year Average.

Food-borne diseases, sometimes called “food poisoning”, are infections that you get from eating contaminated food or drinks. Common food-borne diseases included Campylobacteriosis, Salmonellosis (Salmonella), Norovirus, Giardiasis, Shigellosis, and Shiga toxin producing E.coli.

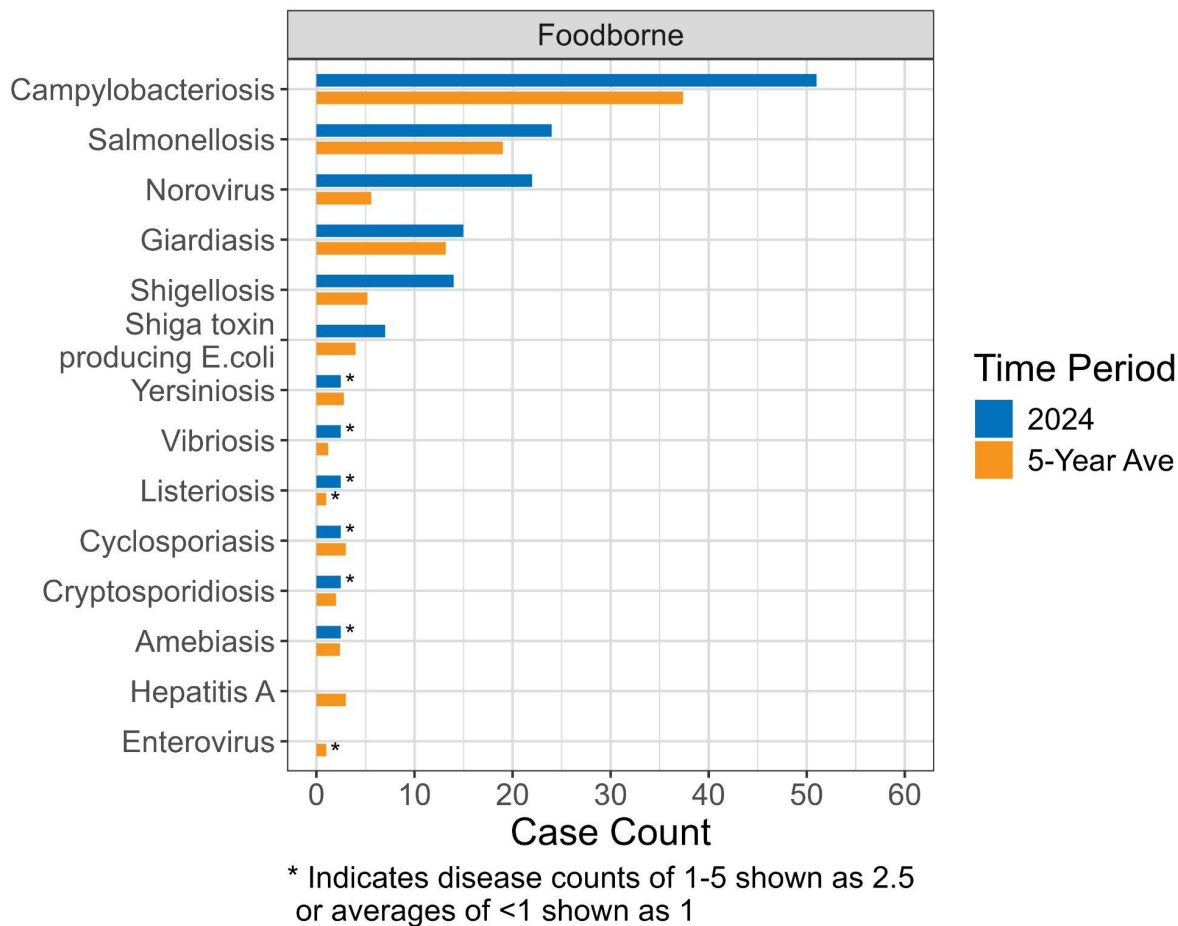
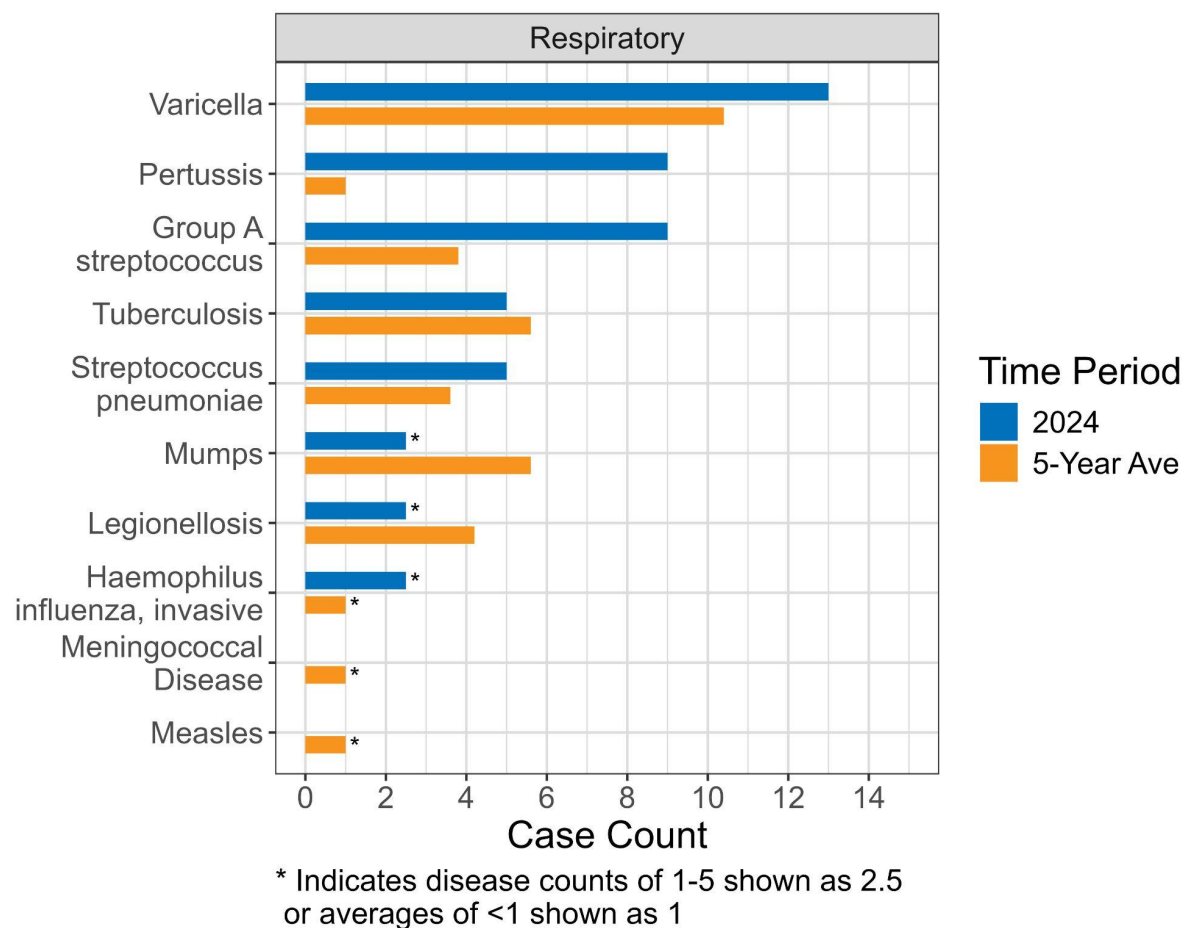


Figure 5. Respiratory Disease Case Counts in 2024 Compared to 5-year Average.

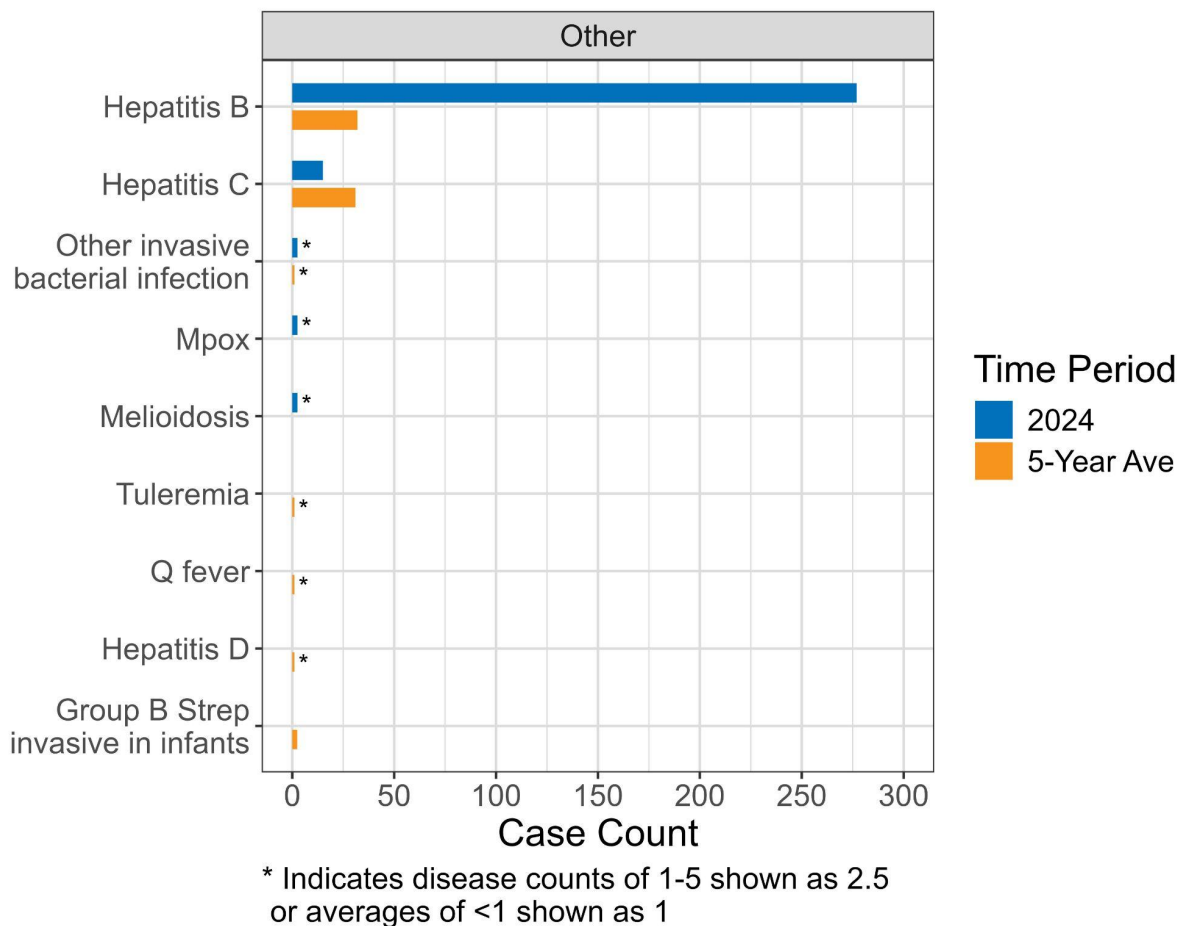
The following diseases are transmitted through respiratory droplets, which are spread when an infected person coughs or sneezes. In addition to Influenza and COVID-19, which are shown in figures 1 and 2, some of the more common diseases spread through the respiratory pathway in Cambridge were Varicella (Chickenpox), Pertussis (Whooping Cough), Group A streptococcus³ (GAS, which causes Strep throat), Tuberculosis, and Streptococcus pneumonia (which causes pneumonia).



³ Some cases of Group A strep are investigated as invasive GAS, and can spread through other mechanisms. It is included here as respiratory strep throat is the most common in Cambridge.

Figure 6. Other Disease Case Counts in 2024 Compared to 5-year Average.

Other common diseases seen in Cambridge this year included Hepatitis B and C⁴. There were also 1-5 cases of other bacterial infections, Mpox⁵ (formerly called monkeypox), and Melioidosis.



⁴ New cases of Hepatitis B and C are often chronic conditions being newly diagnosed through routine screening, not necessarily newly acquired cases. Variation in case counts over the years may reflect variation in diagnoses made.

⁵ The first case of Mpox in Cambridge was reported in 2022, so there is insufficient data to report a 5-year average.

Table 1. Annual case counts.

All counts are for the 2024 calendar year and 5-Year Averages⁶ are for calendar years 2019-2023. ♦ Indicates the top 5 most prevalent diseases in 2024, and * indicates the top 5 most prevalent diseases over 2019-2023.

Disease	2019	2020	2021	2022	2023	5-Year Ave	2024
Amebiasis	<5	<5	<5	<5	<5	2	<5
Babesiosis	0	5	<5	<5	<5	3	6
Borrelia miyamotoi	<5	<5	<5	<5	<5	2	<5
COVID-19 ♦ *	NA	3,411	8,977	23,387	2,058	NA	1,225
Campylobacteriosis ♦ *	48	20	22	49	48	37	51
Cryptosporidiosis	<5	<5	<5	<5	<5	2	<5
Cyclosporiasis	13	0	0	0	<5	3	<5
Dengue Fever	<5	0	0	0	<5	<1	<5
Ehrlichiosis	<5	<5	<5	<5	0	1	0
Enterovirus	<5	0	0	<5	<5	<1	0
Giardiasis	22	8	8	16	12	13	15
Group A streptococcus	<5	0	<5	5	9	4	9
Group B Strep invasive in infants	<5	<5	0	<5	<5	2	0
Haemophilus influenza, invasive	<5	0	0	0	<5	<1	<5
Hepatitis A	8	<5	<5	0	<5	3	0
Hepatitis B ♦ *	30	27	36	31	36	32	277
Hepatitis C	42	24	35	27	27	31	15
Hepatitis D	<5	<5	0	<5	0	<1	0
Human Granulocytic Anaplasmosis	7	8	9	5	7	7	<5
Influenza ♦ *	453	418	66	511	225	335	577
Legionellosis	5	<5	5	<5	5	4	<5
Listeriosis	<5	<5	<5	<5	0	<1	<5
Lyme Disease ♦ *	76	65	69	74	131	83	94
Malaria	7	0	<5	<5	0	2	<5
Measles	<5	0	0	0	0	<1	0
Melioidosis	0	0	0	0	0	0	<5
Meningitis - Unknown Type	<5	0	0	0	0	<1	<5
Meningococcal Disease	<5	0	0	0	<5	<1	0
Mpox	NA	NA	NA	10	<5	NA	<5
Mumps	19	6	<5	0	<5	6	<5
Norovirus	9	<5	<5	6	9	6	22
Other Arbovirus	0	0	<5	<5	<5	<1	0

⁶ 5 full years of data are not available for Mpox or COVID-19, so no 5-year average is reported.

Other invasive bacterial infection	0	<5	<5	0	0	<1	<5
Pertussis	<5	0	0	0	<5	1	9
Powassan virus	0	0	<5	0	0	<1	0
Q fever	0	0	0	0	<5	<1	0
Salmonellosis	24	8	29	14	20	19	24
Shiga toxin producing E.coli	5	<5	<5	<5	6	4	7
Shigellosis	<5	<5	<5	8	11	5	14
Spotted fever rickettsioses	0	0	<5	<5	0	<1	0
Streptococcus pneumoniae	<5	<5	<5	6	<5	4	5
Tuberculosis	8	7	6	<5	6	6	5
Tuleremia	0	0	<5	0	0	<1	0
Varicella	12	5	10	7	18	10	13
Vibriosis	<5	0	<5	0	<5	1	<5
West Nile Infection	<5	<5	<5	<5	0	1	<5
Yersiniosis	<5	0	<5	6	<5	3	<5