



**2023 Communicable Disease Epidemiology  
Report  
Yellowstone County, Montana**

By

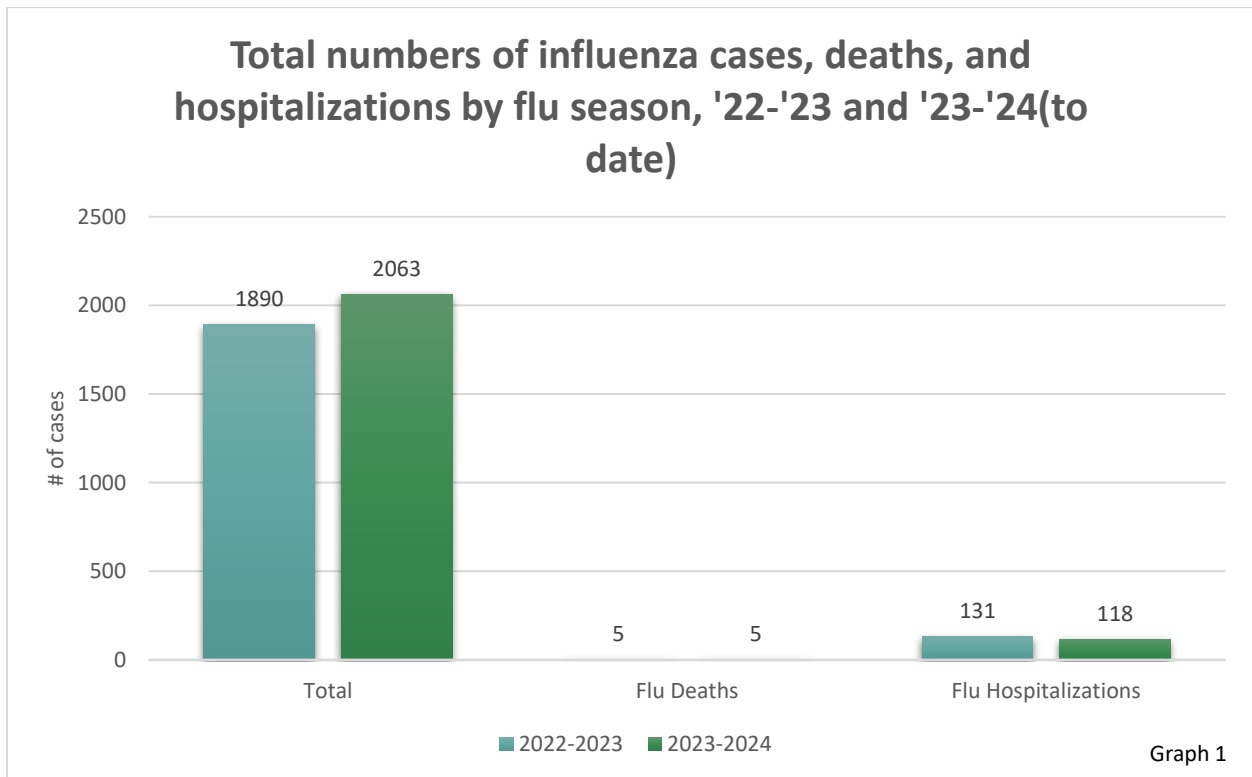
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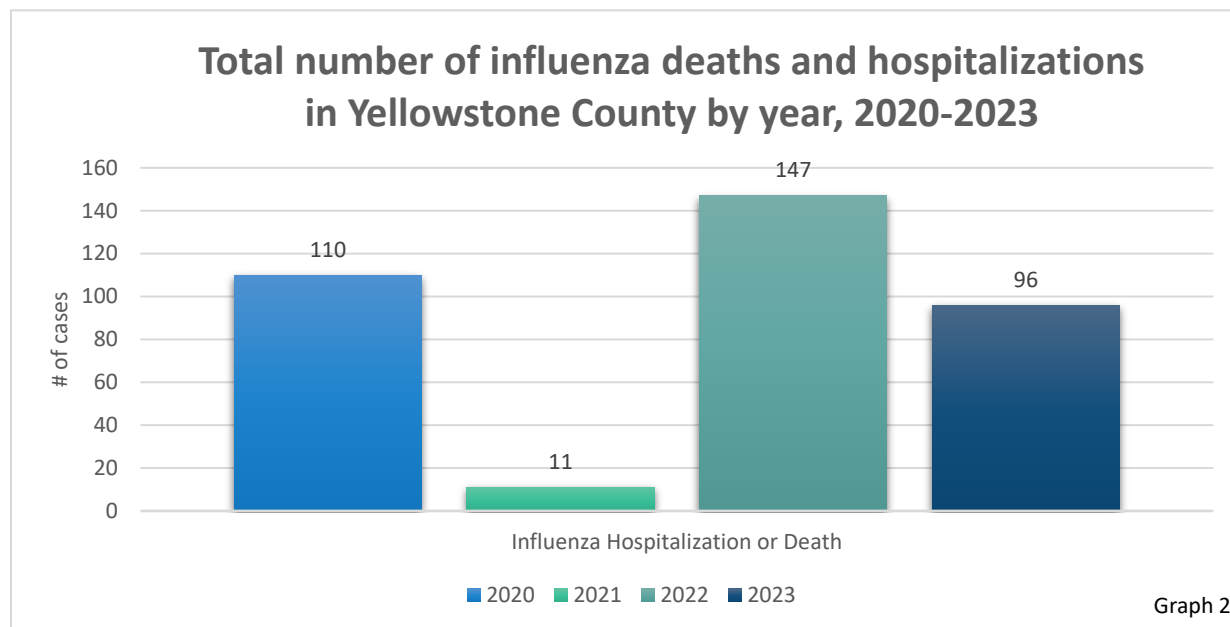
In the following pages, the 2023 communicable disease report shows a comprehensive breakdown of the distribution of diseases in Yellowstone County. The data describes yearly totals from 2020 through 2023, emphasizing the comparison of past years to 2023. The data visualizations show trends throughout time to give significance to how disease presence fluctuates among our population. In this report, COVID-19 years are included, which is important to acknowledge as there may be underreporting of diseases, resulting in lower numbers than anticipated. The below data still gives background to many years of communicable disease presence.

**Influenza** – Graph 1 breaks down the previous flu season, 2022-2023, and then current flu season, 2023-2024 to date. In the previous season we experienced 1890 cases of flu in our county with 5 deaths and 131 hospitalizations. 826 cases were seen in males and 1064 in females. 48.6% of the cases were in ages 0-18, 32.2% in 19-50, and 19.2% in ages 51+.

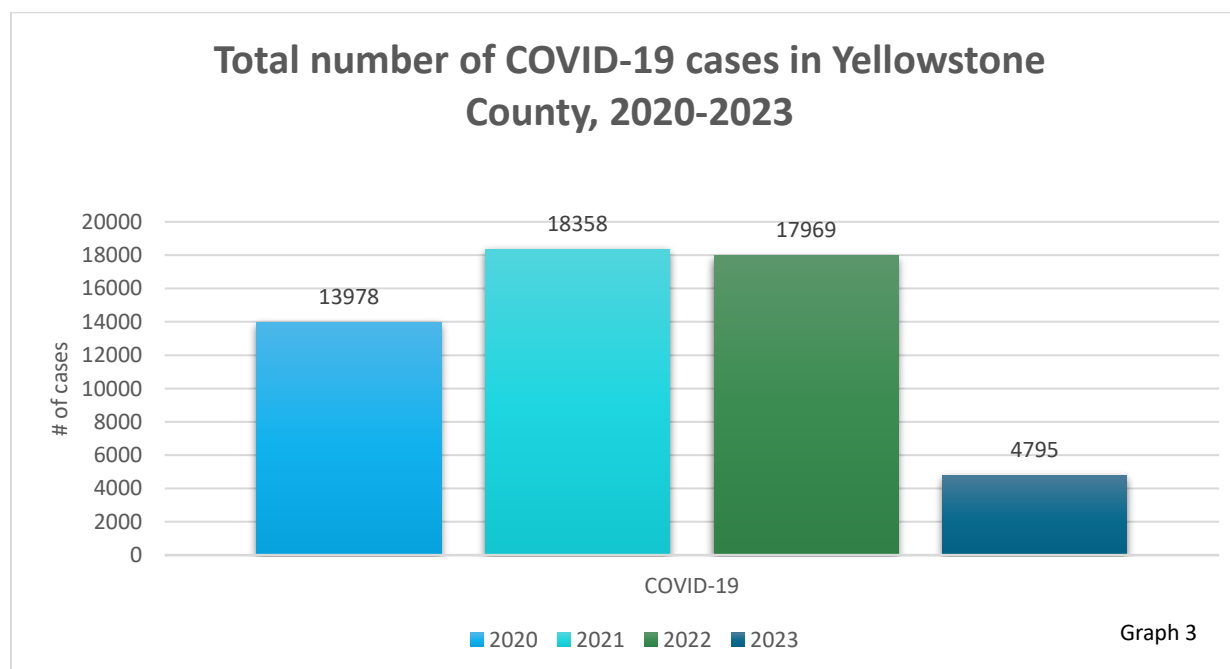
At this point in time for the 2023-2024 season, we have 2063 cases with 5 deaths and 118 hospitalizations. 925 of the cases are male and 1036 are females. As shown in the previous season, ages 0-18 have the highest percentage of cases at about 47% followed by 19-50 at 45%. These numbers will continue to change over the next few months of respiratory season, and future reports will reflect that change.



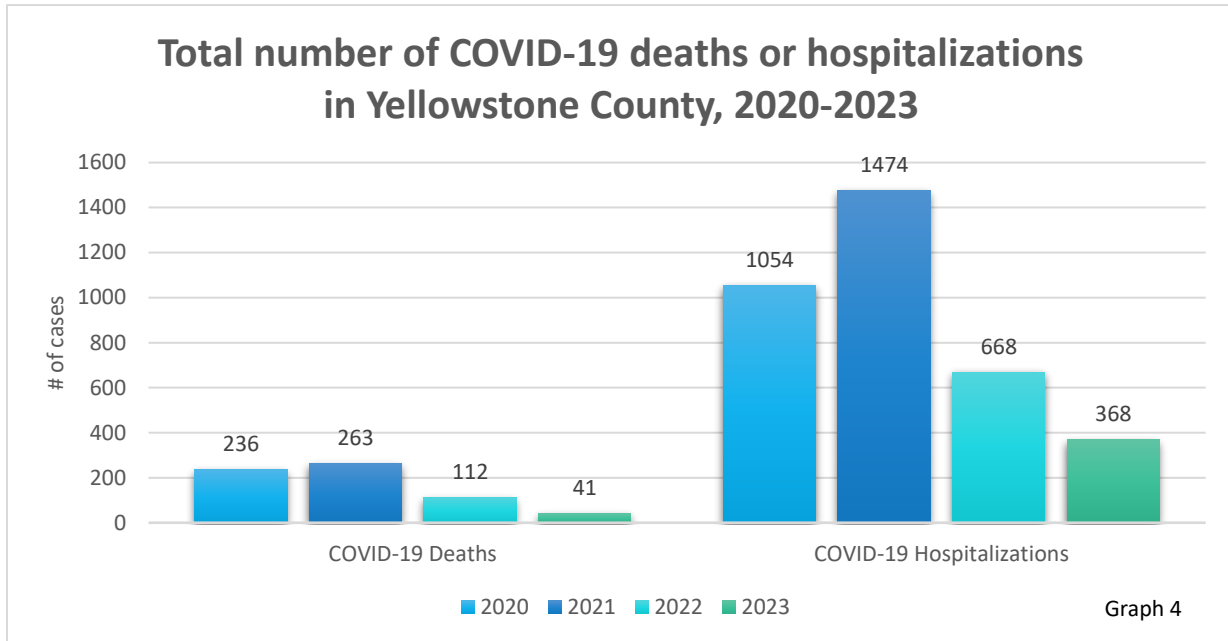
Graph 2 shows the total number of influenza deaths and hospitalizations by year from 2020 to 2023. The significantly lower number for 2021 is most likely due to high COVID-19 hospitalizations at the time and discrepancies in reporting.



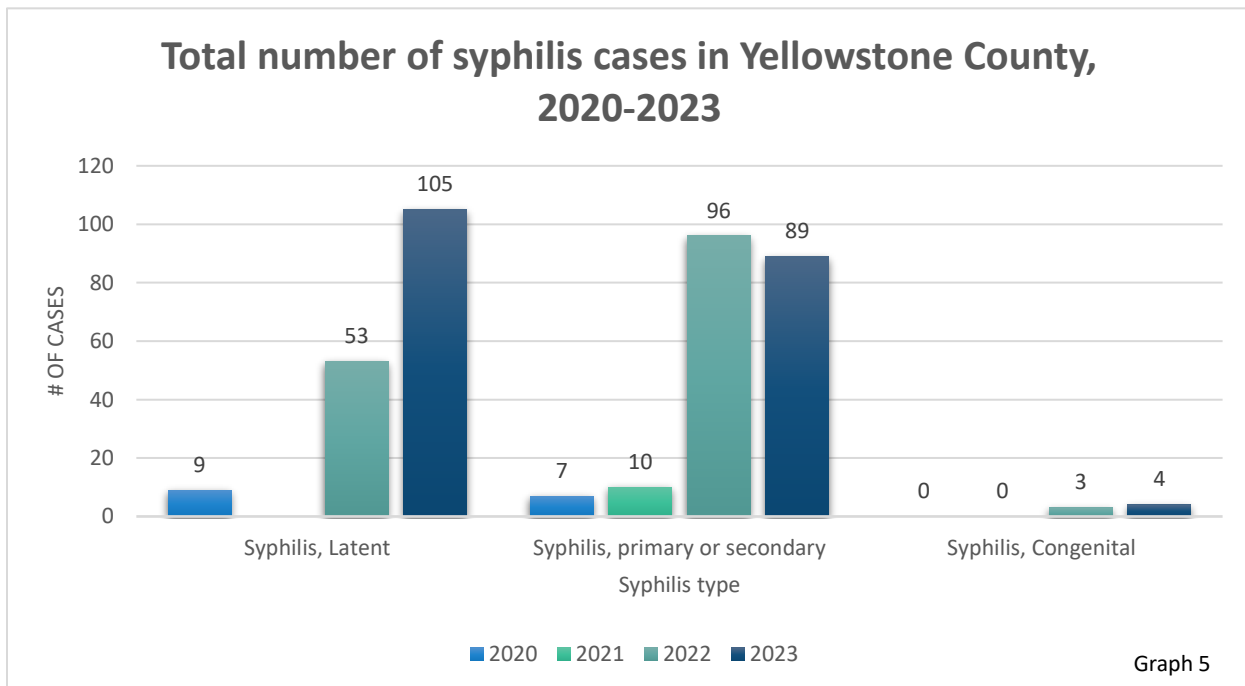
**COVID-19** – Graph 3 shows total COVID-19 cases since the pandemic started in 2020. From 2022 to 2023, analysis shows a 73% decrease in total cases. This is not an accurate representation of disease burden among Yellowstone County residents due to the amount of home testing kits used for COVID having increased, and those are not reportable. Since they are not mandatory, we do not know the number of positive tests coming from these kits, but it’s predicted to be significantly higher as millions of tests are bought every month in the United States according to the CDC.



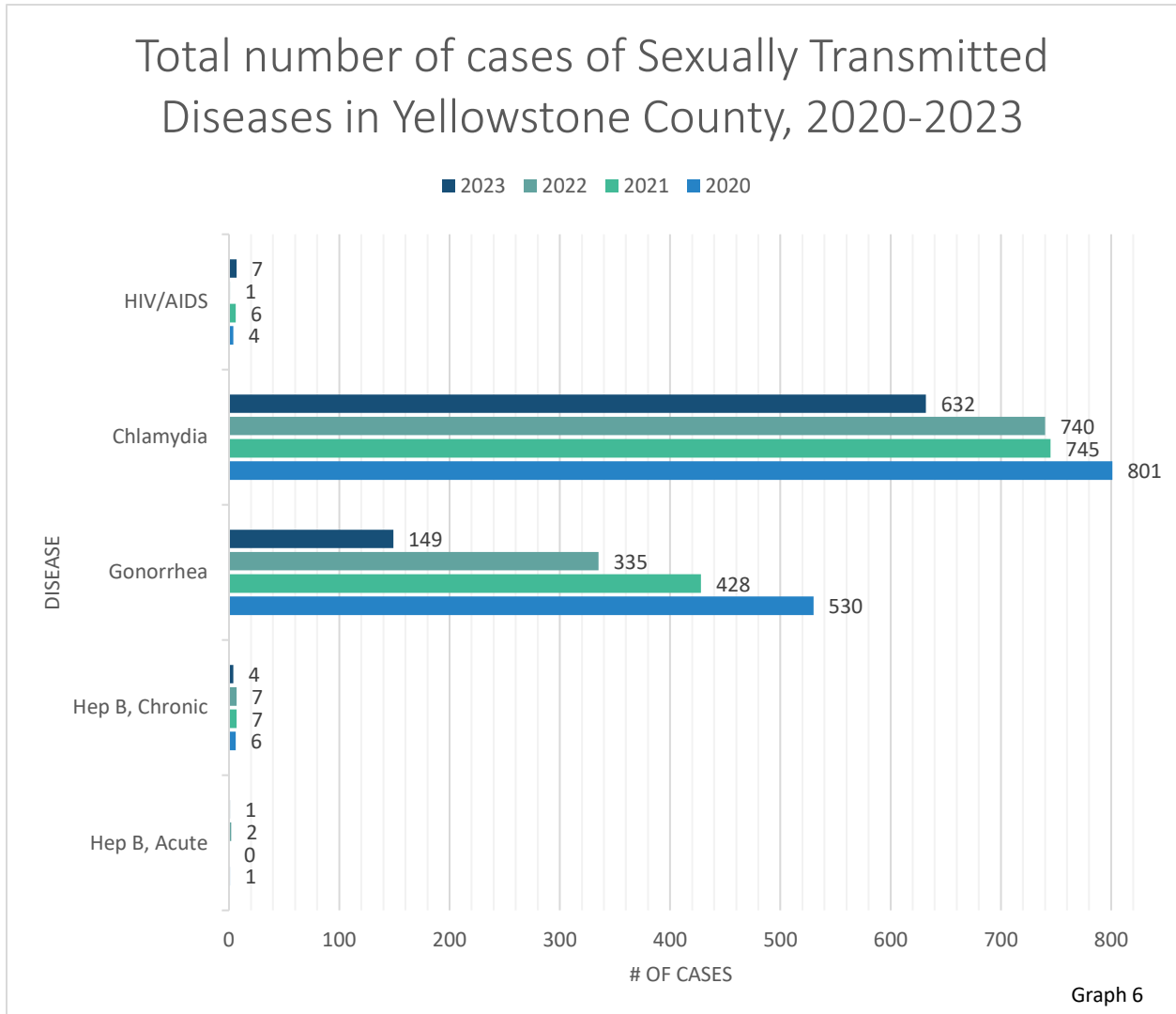
Graph 4 shows there was a decrease in COVID-19 deaths and hospitalizations since 2021. 2021 had 1474 hospitalizations. In 2023 we saw a 75% decrease in hospitalizations since 2021, and an 84% decrease in deaths due to COVID-19 in 2023.



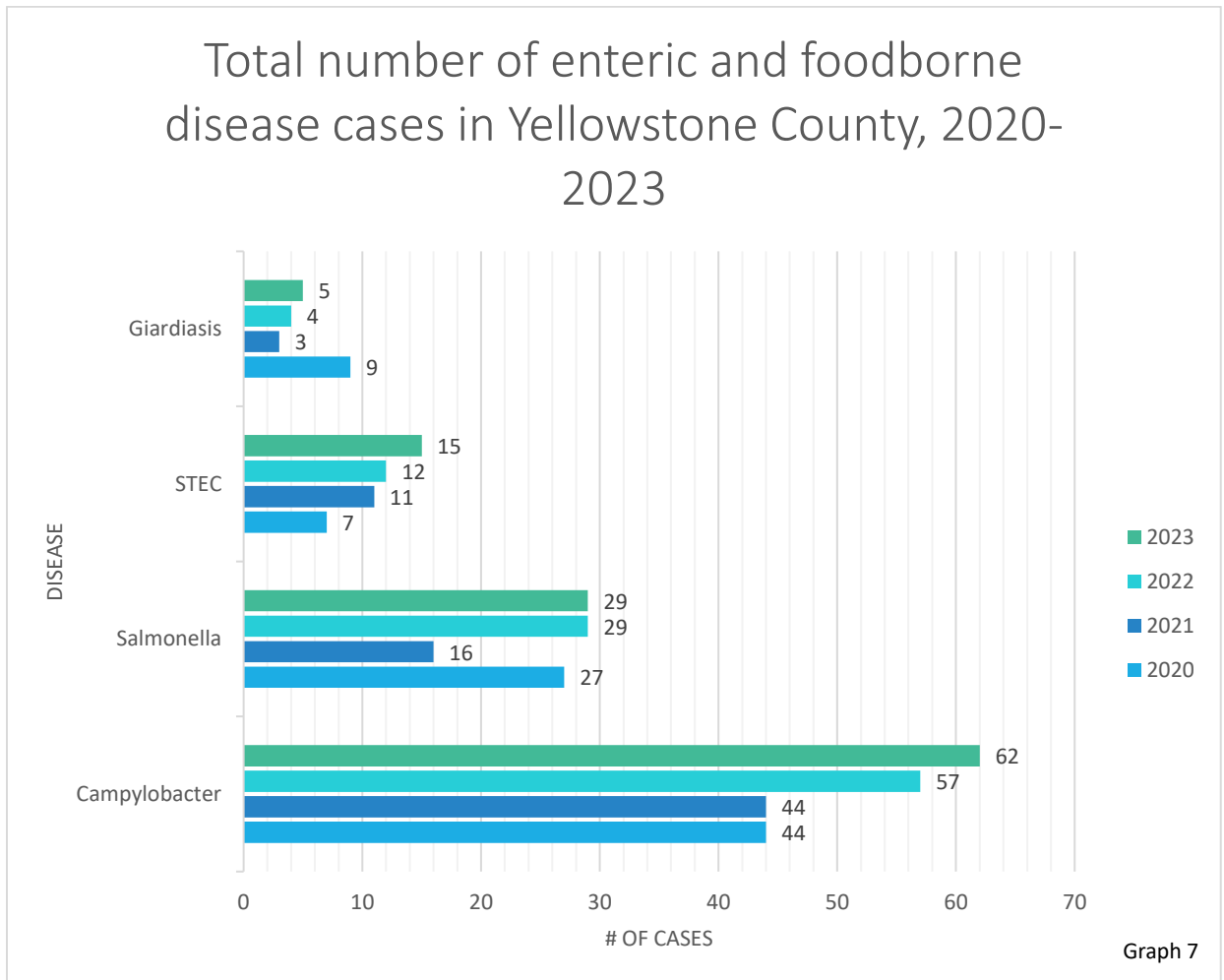
**Syphilis** – Syphilis cases have been on the rise in our county, and state, since 2020 with a 1066% increase in latent syphilis cases, 1171% in primary or secondary syphilis cases, and going from 0 congenital syphilis cases in 2020 to 4 cases in 2023. The entire state of Montana saw more than a double of syphilis cases from 2021 to 2022 and from 2022 to 2023 saw a 21% increase in all cases combined.



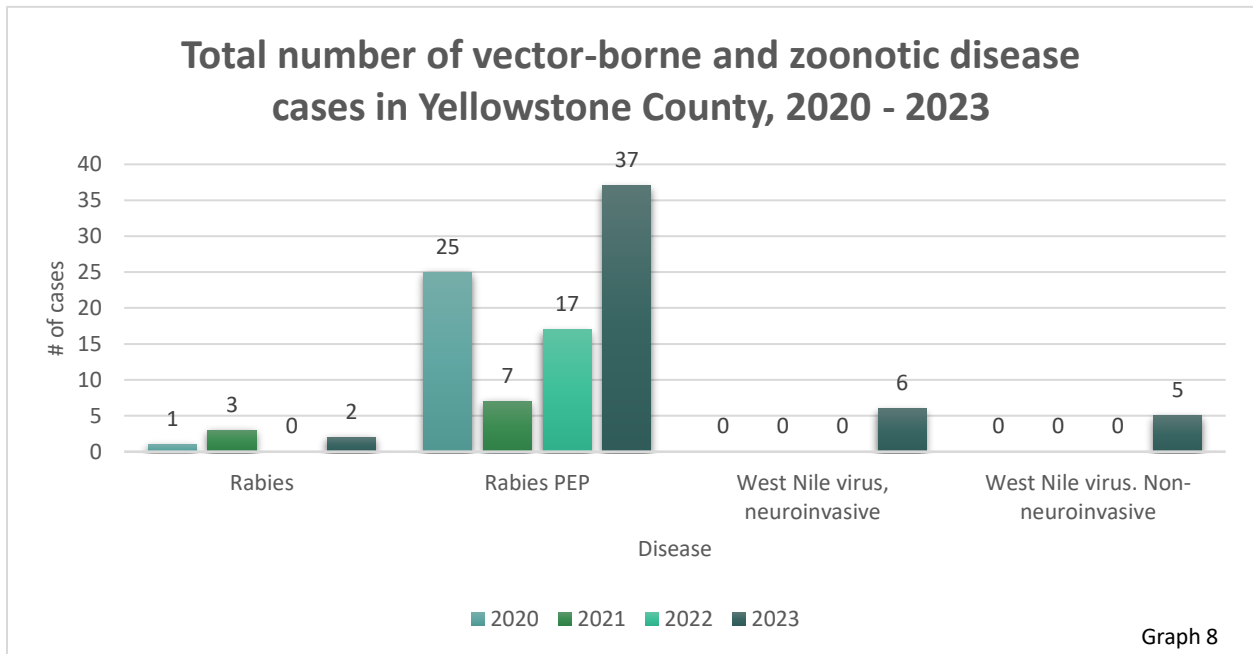
**Sexually Transmitted Diseases** – From 2020 to 2023, we saw a 21% decrease in chlamydia cases, ending 2023 with 632 cases. Gonorrhea cases had a 71% decrease and we ended 2023 with 149 cases compared to 530 cases in 2020. Hepatitis B, both chronic and acute, have seen steady fluctuation every year, ending 2023 with a combined total of 5 cases. With HIV/AIDS cases, we have seen a 75% increase in cases since 2020, ending 2023 with 7 cases. In the state of Montana, Yellowstone County had the highest amount of sexually transmitted diseases in 2023.



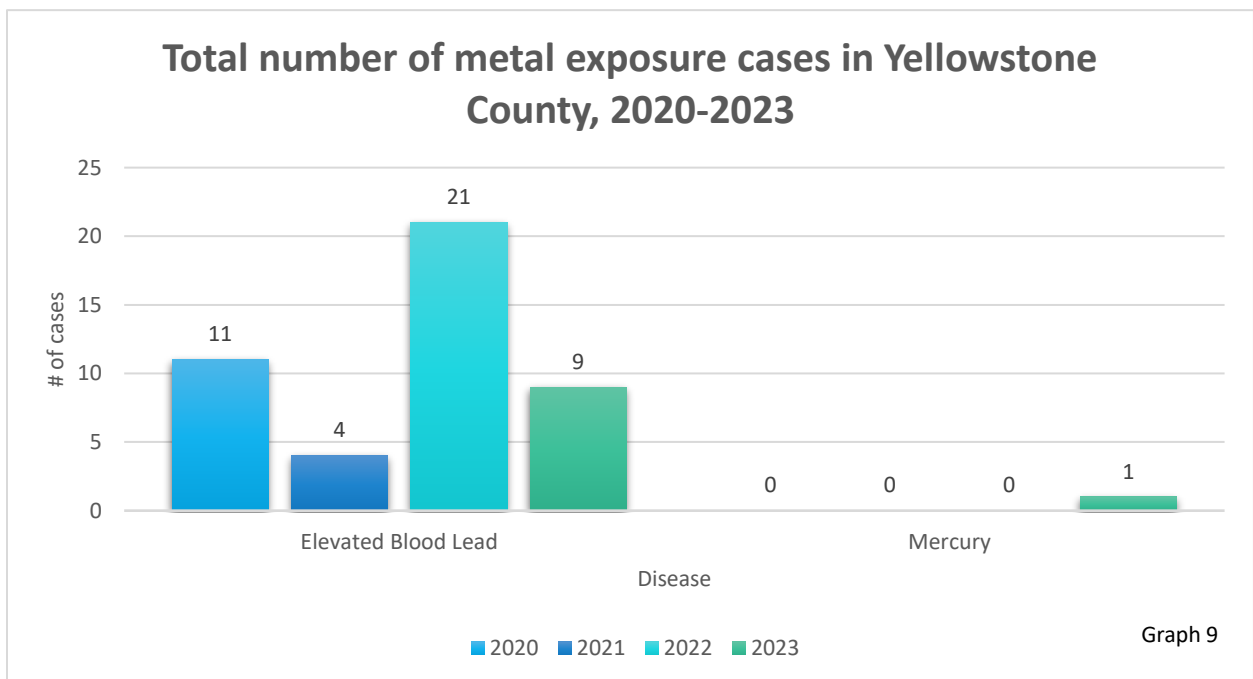
**Enteric and Foodborne Illness** – Yellowstone County has seen an increase in foodborne illness and enteric diseases since 2020. Campylobacter cases has the largest increase of 41%, ending 2023 with 62 cases. Salmonella only went from 27 cases in 2020 to 29 cases in 2023. Shiga Toxin-producing E. coli (STEC) has increased by 114%. Giardiasis decreased by 44%, going from 9 to 5 cases in 2023.



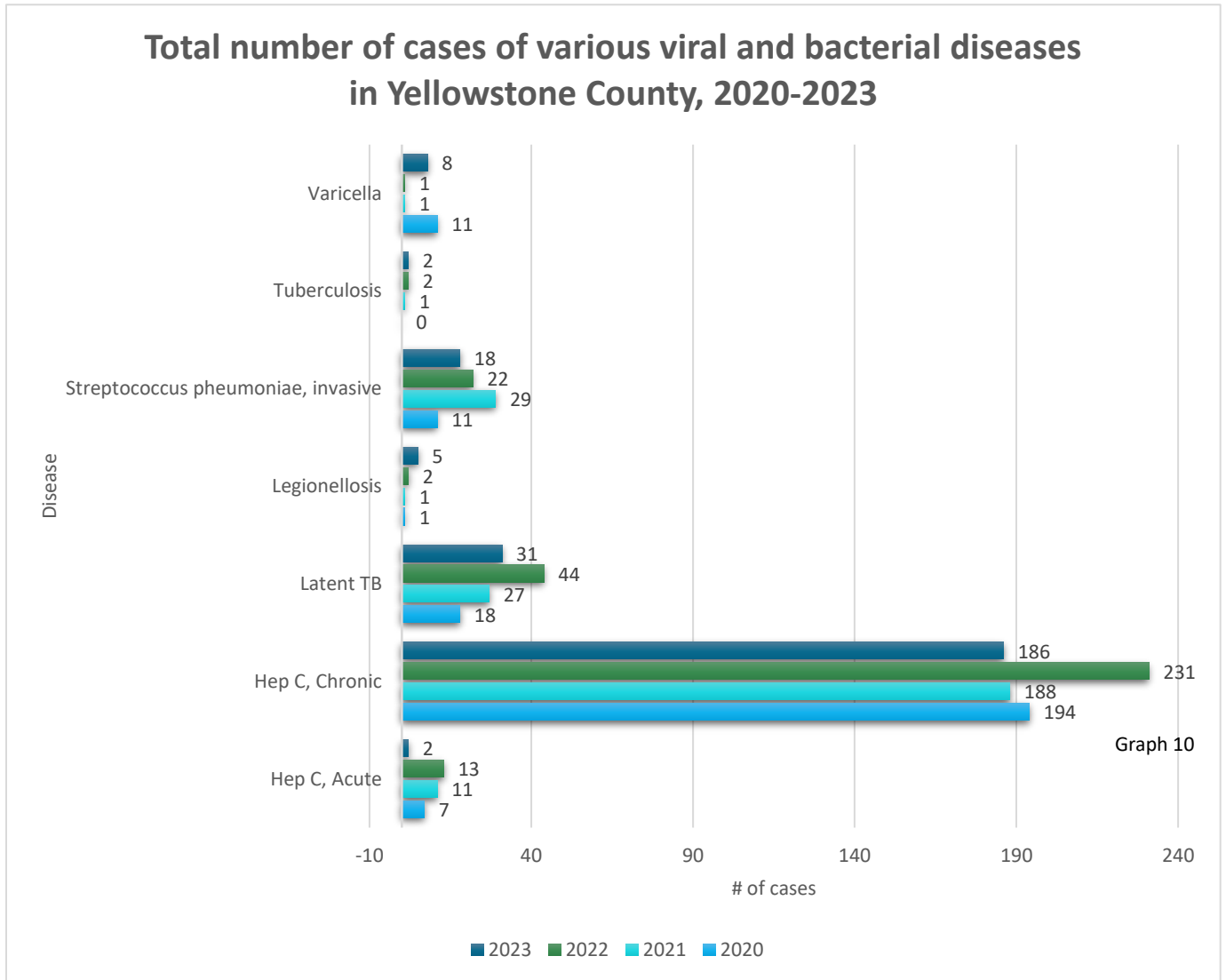
**Vector-borne and Zoonotic Diseases** – In 2023, there was large amount of West Nile cases in Yellowstone County during the summer and rainy months. In the past there had been zero cases reported. We ended 2023 with 5 non-neuroinvasive cases and 6 neuroinvasive cases. Rabies saw 50% increase, all combined. There was a large drop in cases from 2020 to 2021 before a continuous increase throughout 2022 and 2023.



**Metal exposures** – We ended 2023 with 9 reported cases of elevated blood lead levels, a 57% decrease from 2022 when there were 21 cases. Previous years have shown fluctuations as well. Yellowstone County did also have a mercury case in 2023 whereas the previous three years we had 0 cases reported.



**Other Viral and Bacterial Diseases** – Total Hepatitis C cases have decreased since 2020 by 6%, ending 2023 with 188 cases. Tuberculosis cases has increased from 0 to 2 cases in 2023 and latent TB cases have increased by 72%, ending 2023 with 31 cases. Legionellosis has increased by 400%, totaling 5 cases in 2023. For varicella, from 2020 to 2021 there was a 90% decrease going from 11 to 1 case. It held steady at 1 case for 2021 and 2022 before a 700% increase in 2023. Streptococcus pneumoniae has seen fluctuation over the past years as well, but ended 2023 with 18 cases, a decrease from 2021 and 2022.



**Sources**

CDC. COVID-19 – Homepage. <https://www.cdc.gov/coronavirus/2019-ncov/covid-19-data-and-surveillance.html>. 1/25/2024.

DPHHS. Montana Infectious Disease Information System. 1/25/2024.