

2024 Selected Reportable Communicable Diseases Data Brief



According to the NC Administrative Code (rule 10A NCAC 41A.0101), select communicable diseases and conditions must be reported to the Division of Public Health (DPH) within specified timeframes, depending on the specific disease. Some of these conditions are rarely, if ever, reported to occur in Guilford County.

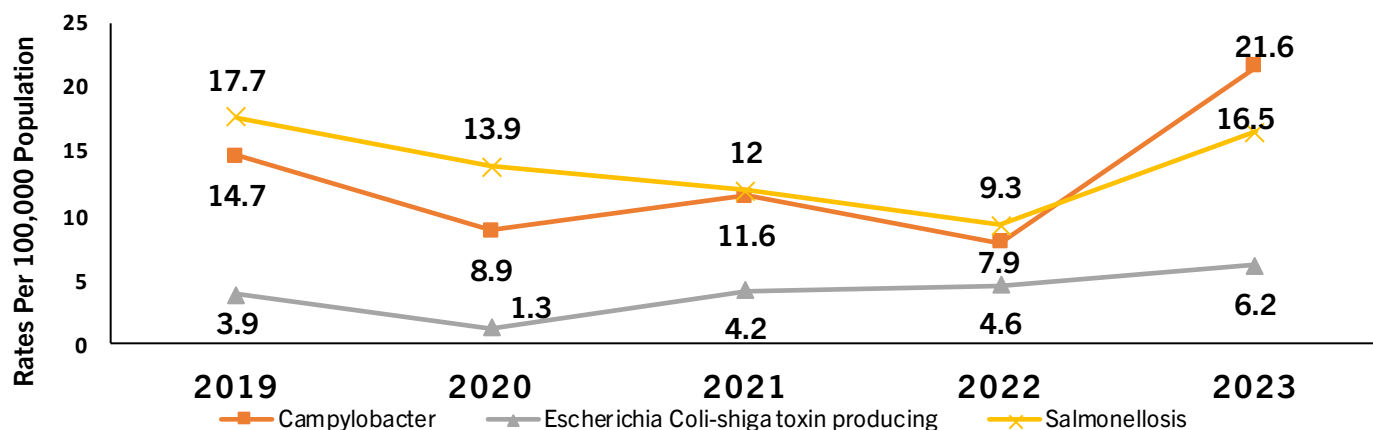
This Data Brief includes selected reportable diseases organized by means of transmission. Some conditions can be transmitted in more than one manner. For example, Hepatitis is most commonly transmitted through contaminated food or drink, but can also be transmitted through person-to-person contact, and Hepatitis C is typically transmitted through contaminated blood, but in some circumstances, can be transmitted sexually.

Technical Notes: The processing of communicable data records may result in a delay in the public availability of data. Published data may change with further follow-up and investigation. Rates are expressed per 100,000 population. Please note that rates based on small numbers (fewer than 20 cases) are unstable and should be interpreted with caution. 2019 through 2023 counts and rates include “confirmed” and “probable” case definitions.

Water or Foodborne Diseases Highlights

- In 2023, the most commonly reported foodborne illnesses in Guilford County were Campylobacter, with 119 cases, and Salmonellosis, with 91 cases.
- Escherichia coli (STEC) cases nearly doubled from 2022, reaching 34 cases (6.2 per 100,000) in 2023.

Foodborne Illnesses, Guilford County 2019 - 2023

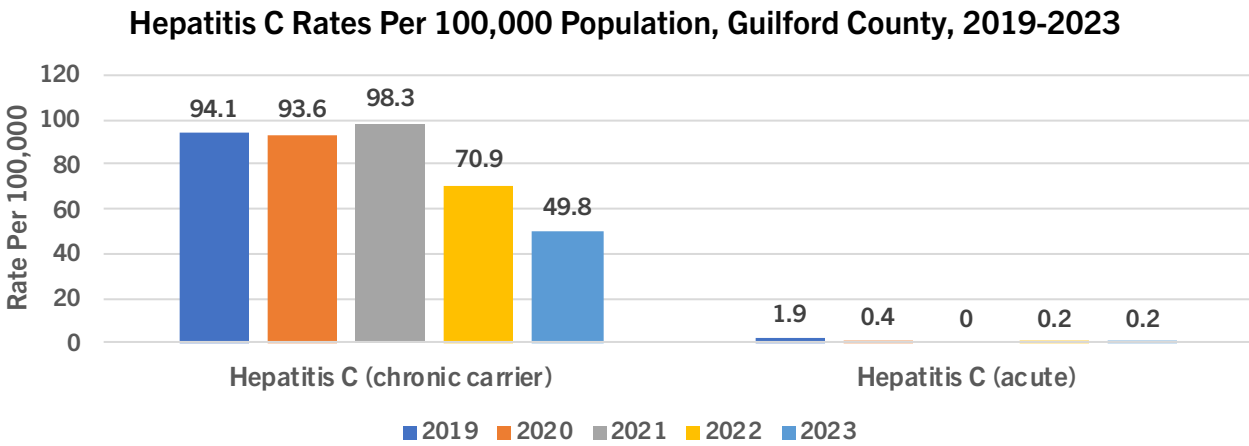
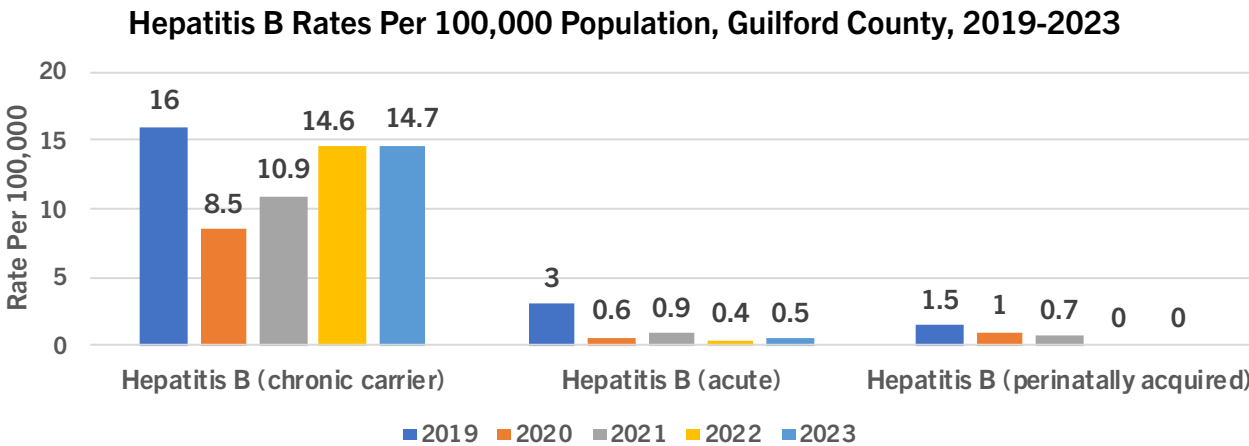


Reportable Disease	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023
Water or Foodborne Disease	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Campylobacter	79	14.7	48	8.9	63	11.6	43	7.9	119	21.6
Cyclosporiasis	4	0.7	2	0.4	15	2.8	12	2.2	7	1.3
Cryptosporidiosis	10	1.9	10	1.8	12	2.2	19	3.5	21	3.8
Escherichia Coli-shiga toxin producing	21	3.9	7	1.3	23	4.2	25	4.6	34	6.2
Listeriosis	1	0.2	2	0.4	0	0.0	0	0.0	2	0.4
Salmonellosis	95	17.7	75	13.9	65	12.0	51	9.3	91	16.5
Shigellosis	14	2.6	13	2.4	18	3.3	11	2.0	32	5.8
Vibrio infection (other than vulnificus)	4	0.7	4	0.7	2	0.4	0	0.0	0	0
Population	537,174		541,299		542,410		546,101		549,866	

Source: NC Electronic Disease Surveillance System (NCEDSS); NC Disease Data Dashboard.
Source of population estimates: Population estimates are from the American Community Survey except for the 2020 estimate from the US Decennial Survey.

Hepatitis Highlights

- The chronic Hepatitis B rates increased from 2020 to 2023, while acute and perinatally acquired cases decreased from 2019 to 2023.
- The number of chronic Hepatitis C cases declined significantly from 533 cases in 2021 to 263 cases in 2023.



Reportable Disease	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023
<i>Hepatitis</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Hepatitis A	10	1.9	21	3.9	4	0.7	2	0.4	2	0.4
Hepatitis B (acute)	16	3.0	3	0.6	5	0.9	2	0.4	3	0.5
Hepatitis B (chronic carrier)	87	16.2	58	10.7	59	10.9	85	15.6	81	14.7
Hepatitis B (perinatally acquired) ¹	8	1.5	6	1.0	4	0.7	0	0.0	0	0.0
Hepatitis C (acute)	10	1.9	3	0.6	0	0.0	1	0.2	1	0.2
Hepatitis C (chronic carrier)	699	130.0	481	88.9	489	90.1	371	67.9	263	47.8
Population	537,174		541,299		542,410		546,101		549,866	

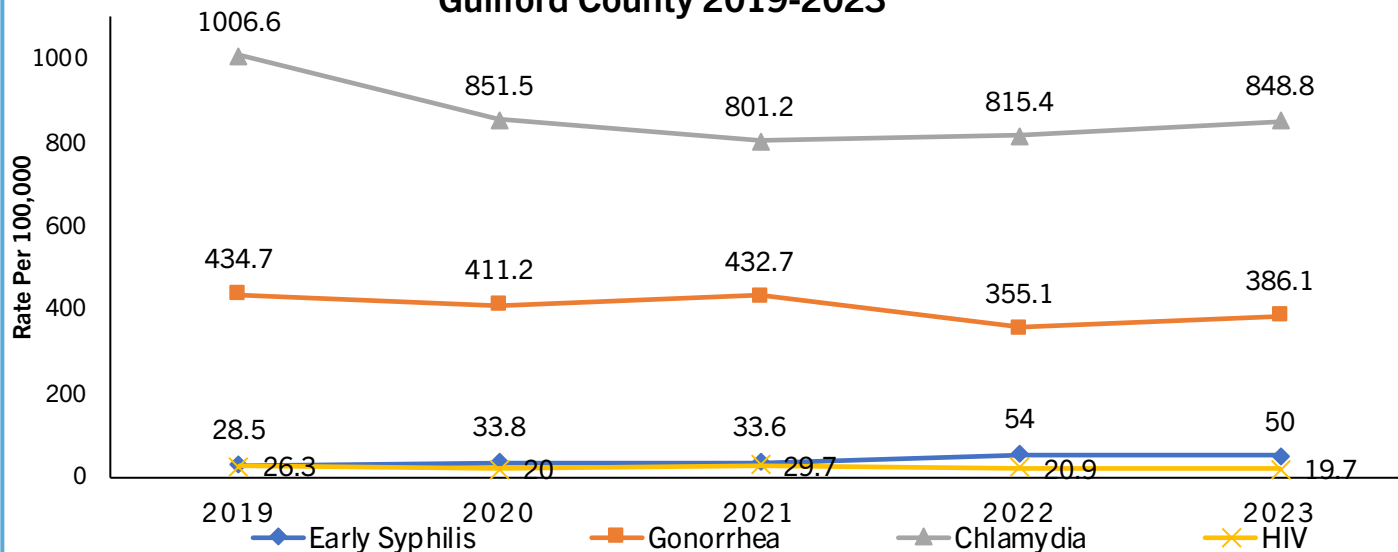
Sources: NC Electronic Disease Surveillance System (NCEDSS); NC Disease Data Dashboard.
Source of population estimates: Population estimates are from the American Community Survey except for the 2020 estimate from the US Decennial Survey.

¹ 2019 to 2023, Hepatitis B (perinatally acquired) cases were investigated by LHD but not yet reported to CDC. The data source for risk denominator was Resident Live Births.

Sexually Transmitted Infections (STI) Highlights

- Chlamydia remains the most commonly reported STI in Guilford County, with 4,667 cases (848.8 per 100,000) in 2023, followed by gonorrhea, with 2,123 cases (388.8 per 100,000).
- Rates of new early syphilis cases remained high, with 50.0 per 100,000 population in 2023.
- Cases of congenital syphilis increased from 1 annually in previous years to 4 in 2023, highlighting a growing concern.

Trends For Early Syphilis, Gonorrhea, Chlamydia and HIV, Guilford County 2019-2023



Reportable Disease	2019	2019	2020 ¹	2020	2021	2021	2022	2022	2023	2023
<i>Sexually Transmitted</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Chlamydia ²	5,414	1006.6	4,609	851.5	4,347	800.9	4,423	809.9	4,663	853.9
Gonorrhea	2,337	434.5	2,226	411.2	2,347	432.4	1,927	352.9	2,123	388.8
HIV infection ³	118	26.0	91	19.9	135	29.3	94	20.3	92	19.8
HIV – New AIDS Cases ⁴	27	6.0	32	7.0	20	4.3	36	7.8	32	6.9
Syphilis (early) ⁵	182	33.8	181	33.4	293	54.0	355	65.0	282	51.6
Syphilis (primary and secondary)	82	15.2	104	19.2	174	32.1	212	38.8	152	27.8
Syphilis (early non-primary non-secondary) ⁶	100	18.6	77	14.2	119	21.9	143	26.2	130	23.8
Syphilis (late and unknown duration) ⁷	62	11.5	56	10.3	122	22.5	182	33.3	189	34.4
Congenital syphilis (confirmed and probable) ⁸	1	0.19	1	0.18	1	0.18	6	1.1	4	0.7
Non-gonococcal urethritis	172	32.0	73	13.5	66	12.2	95	17.4	114	20.7
Pelvic Inflammatory Disease (PID)	3	0.6	4	0.7	1	0.2	1	0.2	3	0.5
Population	537,174		541,299		542,410		546,101		549,866	

2 2020 data for sexually transmitted diseases (STD) should be treated with caution due to the impact of the COVID-19 pandemic on accessing STD testing, STD treatment, and surveillance activities in North Carolina.

3 Lymphogranuloma venereum cases are included in the Chlamydia number count starting in 2021.

4 Newly diagnosed HIV and AIDS rates among adults and adolescents ages 13 and above. Rates are based on that population.

5 Early syphilis includes primary and secondary syphilis and early non-primary and non-secondary syphilis.

6 Early non-primary non-secondary (formerly early latent) syphilis.

7 Late is defined as having been infected more than one year and presenting with inflammatory lesions of the cardiovascular system, skin, bone, or other tissue/structures. Late syphilis usually becomes clinically manifest only after a period of 15–30 years of untreated infection.

8 Includes confirmed and probable congenital syphilis cases based on the 2018 case definition <https://ndc.services.cdc.gov/case-definitions/syphilis-2018/>.

Sources of data: Data for chlamydia, gonorrhea, HIV infection, AIDS, early syphilis, primary and secondary syphilis, and early non-primary non-secondary syphilis are from the NC HIV/STD Surveillance Annual Reports; Data for other STI conditions are from the NC Disease Data Dashboard.

Source of population estimates: Population estimates are from the American Community Survey except for the 2020 estimate from the US Decennial Survey.

Notes on STI data and data sources used in this Data Brief:

- Summary data for HIV Infection are drawn from the enhanced HIV/AIDS Reporting System (eHARS) and are published in the Annual HIV Surveillance Reports published by the Epidemiology Section of the NC Department of Health and Human Services. <https://epi.dph.ncdhhs.gov/cd/stds/annualrpts.html>
- Annual summary data for chlamydia, gonorrhea and early syphilis are drawn from the NC Electronic Disease Surveillance System and published in the Annual STD Surveillance Reports from NCDHHS.
- Data in this Data Brief for other STI's are from confirmed and probable cases reported to the NC Electronic Disease Surveillance System and published through the NC Disease Data Dashboard at <https://epi.dph.ncdhhs.gov/cd/figures.html>.
- Numbers and rates of confirmed and probable cases of HIV infection, chlamydia, gonorrhea and early syphilis by age, sex, race and Hispanic/Latino status are from the NC Disease Data Dashboard at <https://epi.dph.ncdhhs.gov/cd/figures.html>.

Airborne Highlights

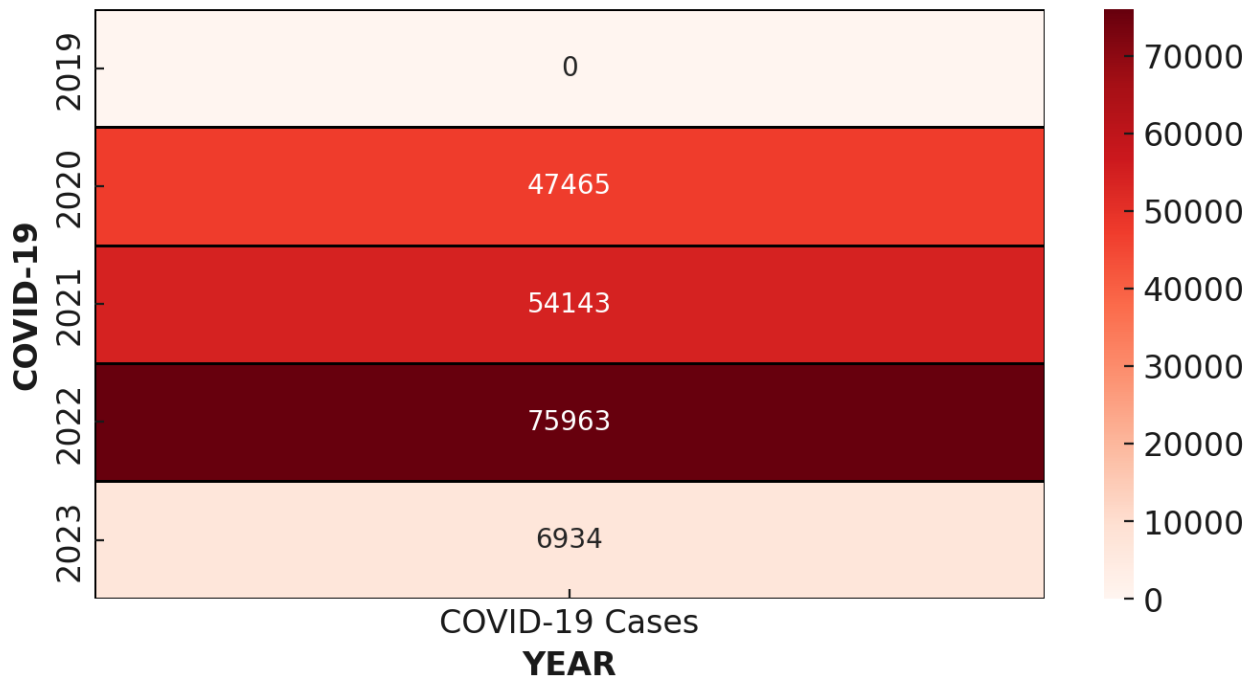
- COVID-19 cases reached their highest point in 2022, with 75,963 cases (13,910.1 per 100,000). However, the 2023 data does not reflect a full year, as COVID-19 case reporting ceased on May 6, 2023, due to changes in data collection at the state and local levels.
- Mumps saw a notable outbreak in 2019, with 50 cases (9.3 per 100,000), but significantly declined in subsequent years, with only one case reported in 2023.
- Legionellosis cases increased in 2021 and remained consistently high through 2023, with 15 cases (2.7 per 100,000) in 2023.
- Haemophilus Influenzae cases have risen significantly, reaching 16 cases (2.9 per 100,000) in 2023, the highest in five years.

The Impact of COVID-19

The following heatmap highlights the significant rise and fall of the COVID-19 pandemic's trajectory in Guilford County from 2019 to 2023. COVID reporting began in 2020 following the declaration of a state of emergency in North Carolina in March 2020 and ended on 5/5/2023 due to a change in data collection at the national, state, and local levels.

- In this heatmap, the color intensity visually represents the number of cases reported each year, with darker shades indicating higher case counts. The color gradient moves from lighter to darker reds, with deeper red tones representing peak case years and lighter shades reflecting lower counts or the absence of cases.
- COVID-19 cases peaked in 2022, marking the highest annual count, likely due to the emergence of more transmissible variants.
- A sharp decline in reported cases is seen in 2023, coinciding with changes in surveillance practices, as the CDC discontinued active case tracking.

COVID-19 CASES HEATMAP (GUILFORD COUNTY, 2019-2023)



Reportable Disease	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023
<i>Air-borne</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Coronavirus (COVID-19) ⁹	NA	NA	47,465	8,781.3	54,143	9,981.9	75,963	13,910.1	6,934	1,261.3
Tuberculosis	11	2.0	10	1.9	10	1.8	11	2.0	9	1.7
Legionellosis	10	1.9	8	1.5	15	2.8	14	2.6	15	2.7
Haemophilus Influenzae	13	2.4	2	0.4	3	0.6	12	2.2	16	2.9
Meningococcal invasive disease	0	0.0	0	0.0	0	0.0	1	0.2	1	0.2
Meningitis, pneumococcal	1	0.2	1	0.2	0	0.0	0	0.0	2	0.4
Mumps	50	9.3	1	0.2	0	0.0	0	0.0	1	0.2
Pertussis (Whooping Cough)	19	3.5	4	0.7	0	0.0	0	0.0	3	0.5
Influenza, adult death (18 years+)	1	0.2	10	1.85	1	0.2	7	1.3	5	1.2

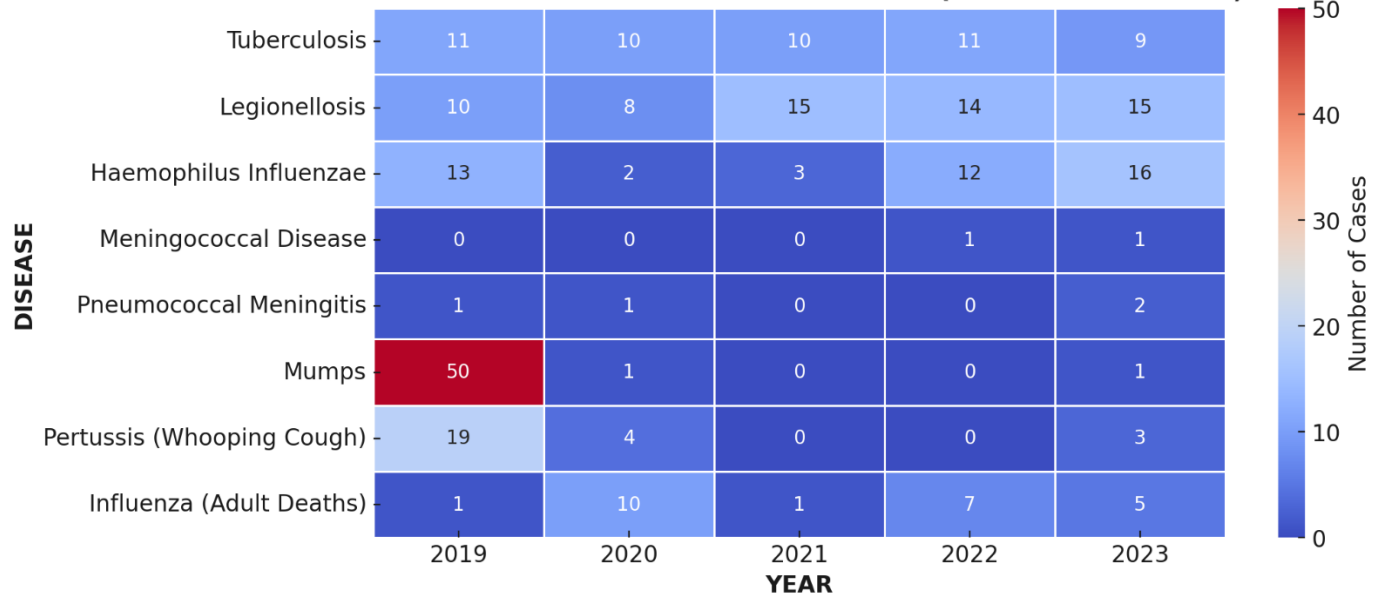
The following heatmap visually represents the reported cases of other airborne diseases in Guilford County from 2019 to 2023. The intensity of the color corresponds to the number of cases, with darker shades indicating higher case counts.

- The color gradient indicates the intensity of cases, with red shades representing higher case counts and darker blue shades indicating lower values.
- The chart highlights fluctuations in disease prevalence over the years. Some diseases, such as Mumps and Pertussis (Whooping Cough), saw a significant decline after 2019, while others, such as Legionellosis and Haemophilus Influenzae, experienced periodic increases.
- Some diseases, like Pertussis and Pneumococcal Meningitis, showed signs of re-emergence in 2023, suggesting a possible relaxation of preventive measures.

Influenza-related adult deaths peaked in 2020, likely influenced by the COVID-19 pandemic's impact on respiratory illnesses.

⁹ Please note 2023 data for COVID-19 does not include data for the entire year due to a change in data collection at the national, state, and local level. Data collection on COVID cases ended on 5/6/2023.

AIRBORNE REPORTABLE DISEASE CASES HEATMAP (GUILFORD COUNTY, 2019-2023)



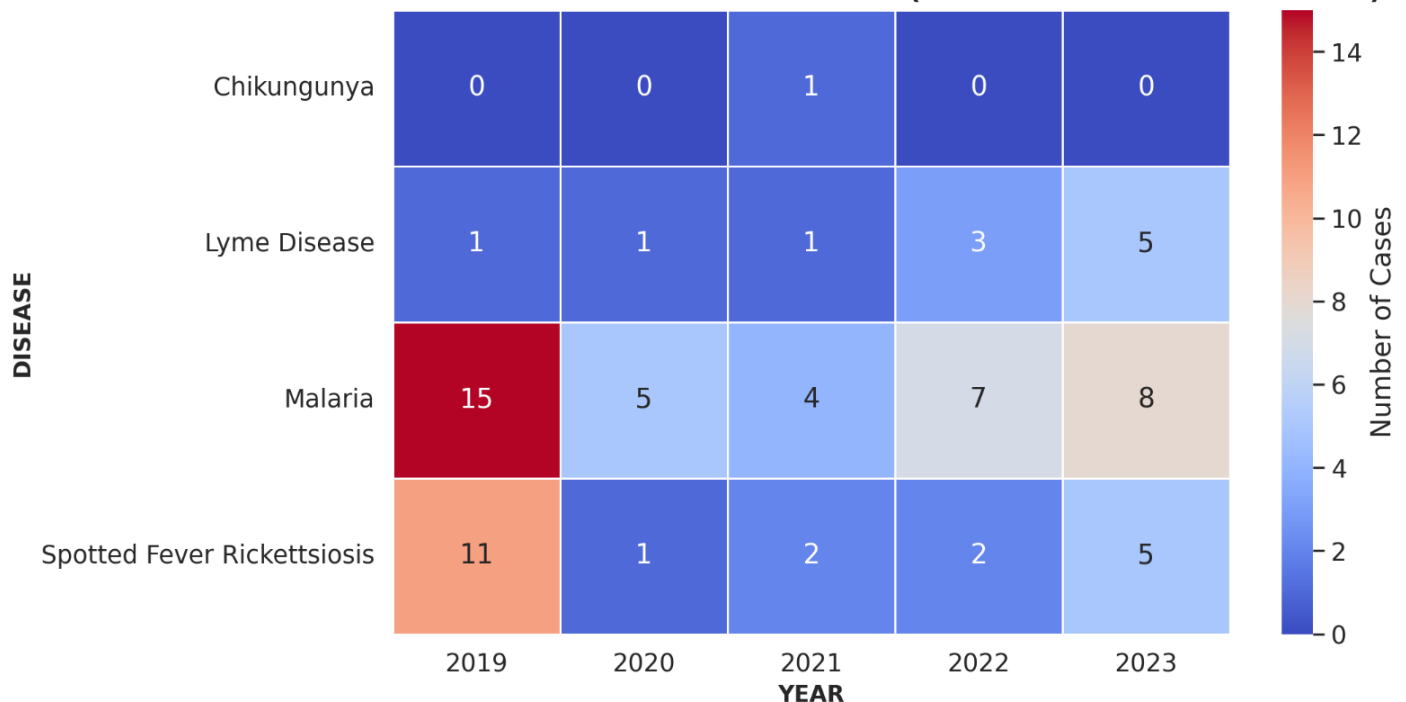
Zoonotic Diseases Highlights

- Lyme Disease cases have steadily increased since 2021, rising to 5 cases (0.9 per 100,000) in 2023.
- Malaria cases doubled from 4 in 2021 to 8 in 2023 (1.5 per 100,000), indicating a possible increase in travel-related or locally acquired infections.

The following heatmap visualizes the number of reported zoonotic diseases in Guilford County from 2019 to 2023. The intensity of the colors represents the number of cases, with darker shades indicating higher case counts.

- Malaria had the highest number of reported cases among zoonotic diseases, peaking in 2019 with 15 cases.
- Lyme Disease showed an increasing trend, rising from 1 case in 2019 to 5 cases in 2023.
- Spotted Fever Rickettsiosis fluctuated over the years, with a slight increase in 2023.
- Chikungunya and Creutzfeldt-Jakob Disease had very few or no reported cases across most years.

ZOONOTIC REPORTABLE DISEASES HEATMAP (GUILFORD COUNTY 2019-2023)

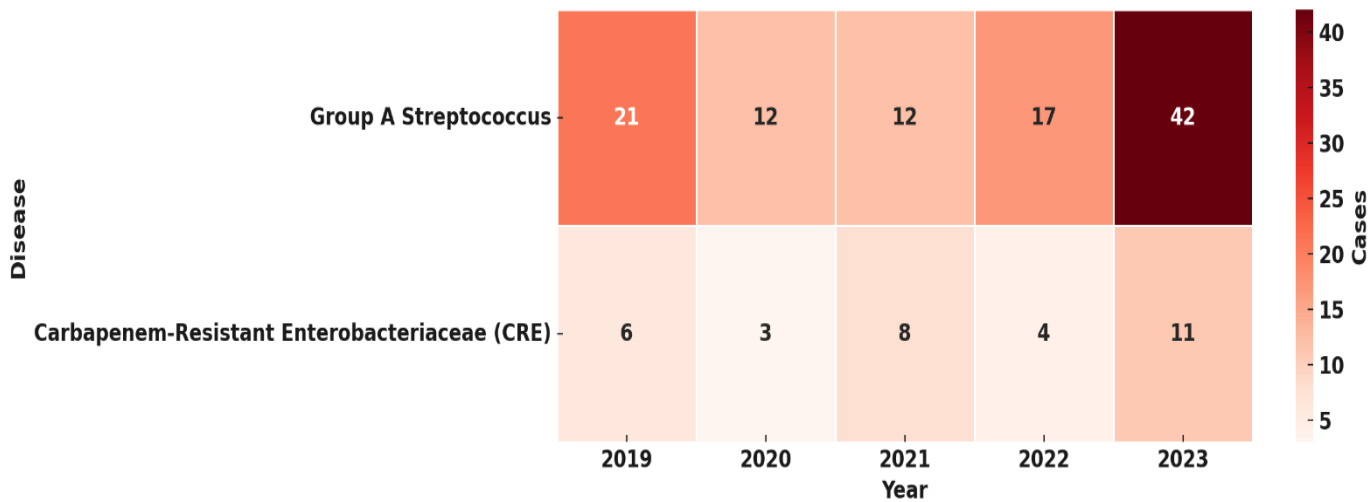


Reportable Disease	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023
<i>Zoonotic</i> ¹⁰	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Chikungunya	0	0.0	0	0.0	1	0.2	0	0.0	0	0
Lyme Disease	1	0.2	1	0.2	1	0.2	3	0.5	5	0.9
Malaria	15	2.8	5	0.9	4	0.7	7	1.3	8	1.5
Spotted Fever Rickettsiosis ¹¹	11	2.0	1	0.2	2	0.4	2	0.4	5	0.9
<i>Prion</i> ¹²	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Creutzfeldt-Jakob Disease	0	0.0	0	0.0	2	0.4	0	0.0	2	0.4
Population	537,174		540,521		542,410		546,101		549,866	

Bacterial and Healthcare-Associated Infections Highlights

- The number of invasive Group A Streptococcal infections more than doubled, rising from 17 cases in 2022 to 42 cases in 2023, as shown by the darker shading in the heatmap below.
- Cases of Carbapenem-Resistant Enterobacteriaceae (CRE) increased from 4 in 2022 to 11 in 2023, indicating a rise in antibiotic-resistant infections.

HEAT MAP OF ANTIBIOTIC-RESISTANT INFECTIONS IN GUILFORD COUNTY (2019-2023)



10 Zoonotic: Animal to human transmission.
11 Spotted Fever Rickettsiosis includes a group of illnesses caused by bacteria in the genus Rickettsia, including Rocky Mountain Spotted Fever.
12 Prion: Human prion protein specific diseases impacting the brain.

Reportable Disease	2019	2019	2020	2020	2021	2021	2022	2022	2023	2023
<i>Bacterial /Antibiotic Resistant¹³</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Streptococcal invasive infection, Group A	21	3.9	12	2.2	12	2.2	17	3.1	42	7.6
Toxic Shock Syndrome, Strepto streptococcal	0	0.0	0	0.0	1	0.2	1	0.2	4	0.7
<i>Healthcare-Associated¹⁴</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>	<i>Number</i>	<i>Rate</i>
Carbapenem Resistant Enterobacteria	6	1.1	3	0.6	8	1.5	4	0.7	11	2

Population	537,174	540,521	542,410	546,101	549,866
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Sources: North Carolina Communicable Disease Data Dashboard; NC Electronic Disease Surveillance System (NCEDSS); HIV Infection Data, from North Carolina HIV/STD Annual Surveillance Report; NC DHHS Communicable Disease Branch. Population estimates from the U.S. Census Bureau (2019-2023).

For Additional information:

The North Carolina Communicable Disease Data Dashboard (NCD3 Dashboard) provides finalized statewide and county-level counts and rates for reportable communicable diseases in North Carolina, with state and county-level case counts and rates by gender, age group, race, and ethnicity. Go to: <https://epi.dph.ncdhhs.gov/cd/figures.html>

The Guilford County Division of Public Health provides annually updated Data Briefs on Tuberculosis and Sexually Transmitted Infections at: <https://www.guilfordcountync.gov/health-data-and-reports>.

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For more information about Guilford County health statistics, visit:

<https://www.guilfordcountync.gov/health-data-and-reports>

¹³ Bacterial /Antibiotic Resistant: Antimicrobial-resistant or susceptible bacterial infections.

¹⁴ Healthcare-Associated: Infections associated with transmission in a healthcare setting.