



AppHealthCare

Caring for our Community

Communicable Disease Update

Ashe, Alleghany, and Watauga Counties

August 2024

CDC HEALTH ALERT NETWORK UPDATES

- **Through 2024 there has been an increase in Oropouche Virus in the Americas**, that poses a risk to travelers who may be visiting impacted areas. Countries currently reporting cases include Brazil, Bolivia, Peru, Colombia, and Cuba. In the United States and Europe in 2024, travel-associated cases have been identified in travelers returning from Cuba and Brazil.
- **Human parvovirus B19 has been on the rise.** Normally a seasonal respiratory virus transmitted through respiratory droplets by people with symptomatic or asymptomatic infection, unusually high numbers have been seen in 2024. In the United States, there is no routine surveillance for parvovirus B19, and it is not a notifiable condition, but based on preliminary information, the increase has been highest for children 5-9 years old. Additionally to note on the magnitude of the increase in illness, among plasma donors, the prevalence of pooled samples with parvovirus B19 (DNA >104 IU/mL) increased from 1.5% in December 2023 to 19.9% in June 2024.
- Since January 2023, the Democratic Republic of the Congo (DRC) has reported **the largest number of yearly suspected clade I mpox (MPXV) cases on record.** While clade I MPXV is naturally occurring in DRC, the current outbreak is more widespread than any previous DRC outbreak with spread to some neighboring countries. No cases of clade I MPXV have been reported outside central and eastern Africa at this time.

(CDC, 2024)

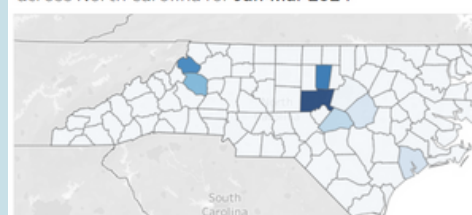
Communicable Disease Update, 2024

Data from the CDC and NCDHHS, accessed 8/1/2024

CURRENT DISEASE LANDSCAPE

- **Tick borne diseases like Lyme disease and ehrlichiosis reach their peaks in the summer months.**
 - Ehrlichiosis is under-identified in Ashe, Alleghany, and Watauga counties, and presents with symptoms that are very similar to rickettsiosis (including Rocky Mountain Spotted Fever)
- **Dog bites and cat bites have increased in the recent months.** Please remember to not approach stray dogs and cats, and to instead reach out to animal control with concerns.
- **Global incidence of dengue in 2024 has been the highest on record for this calendar year;** many countries are reporting higher-than-usual dengue case numbers. In 2024, countries in the Americas have reported a record-breaking number of dengue cases, exceeding the highest number ever recorded in a single year.
- From January 1 – June 24, 2024, **countries in the Americas reported more than 9.7 million dengue cases**, twice as many as in all of 2023 (4.6 million cases). In the United States, Puerto Rico has declared a public health emergency (1,498 cases) and a higher-than-expected number of dengue cases have been identified among U.S. travelers (745 cases) from January 1 – June 24, 2024.
- **Many enteric diseases** (diseases that infect the stomach or intestines, most frequently resulting from consuming contaminated food or water, or from person to person spread) **reach high levels in the summer.**

Ehrlichiosis, chaffeensis Incidence Rate per 100,000 across North Carolina for Jan-Mar 2024

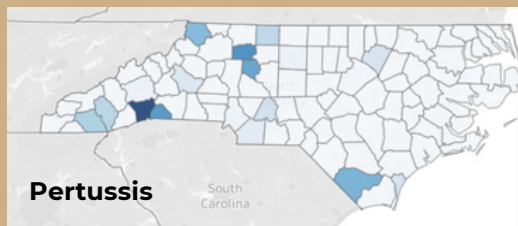


(NCDHHS, 2024)

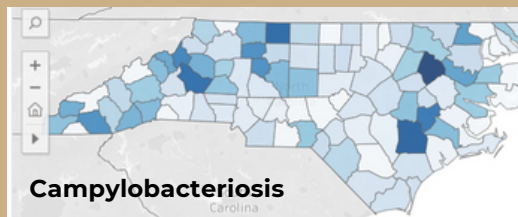
COMMUNICABLE DISEASE KEY POINTS FOR QUARTER ONE, JANUARY THROUGH MARCH, 2024

Like much of the western portion of the state, Ashe County saw an increase in pertussis between January and March 2024. By residents, cryptosporidiosis and legionellosis were more prevalent in Alleghany County from January through March 2024 than in other counties across the state. Chlamydia continues to be less common in Western NC than in Central NC and Eastern NC.

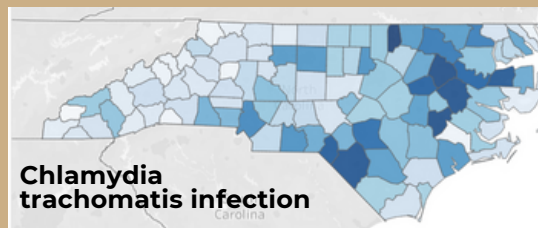
Incident rate per 100,000 residents across NC from Jan-Mar 2024



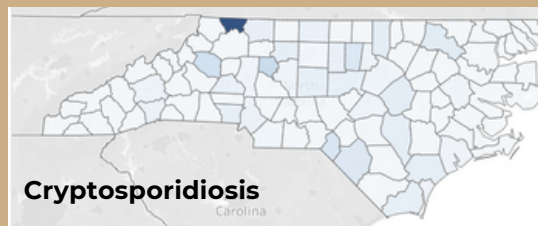
Pertussis



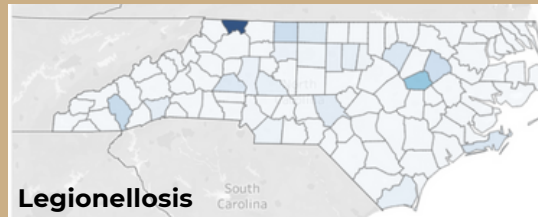
Campylobacteriosis



Chlamydia trachomatis infection



Cryptosporidiosis



Legionellosis

(NCDHHS, 2024)

Campylobacter was prevalent across the state between January and March, 2024, with a wide distribution of cases that include Alleghany, Ashe and Watauga counties.

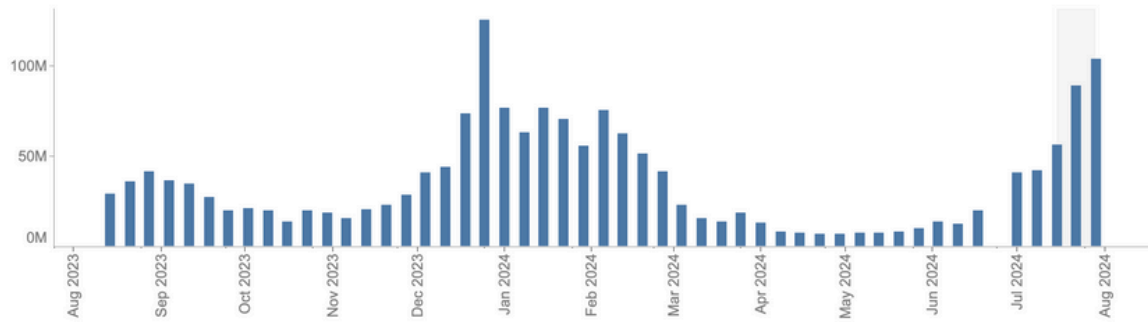
North Carolina Respiratory Surveillance Data Update

Data from NCDHHS Respiratory Disease Dashboard accessed 8/14/2024

STATE WASTEWATER SURVEILLANCE DATA

NCDHHS tracks the level of COVID-19 shed into wastewater. This metric provides a reliable population level picture of the amount of virus at the community level.

Latest Week: An average of **104.0 Million COVID-19 virus particles** per person were found in wastewater samples statewide, **an increase** from the week before. (The week before was 89.0 Million.)



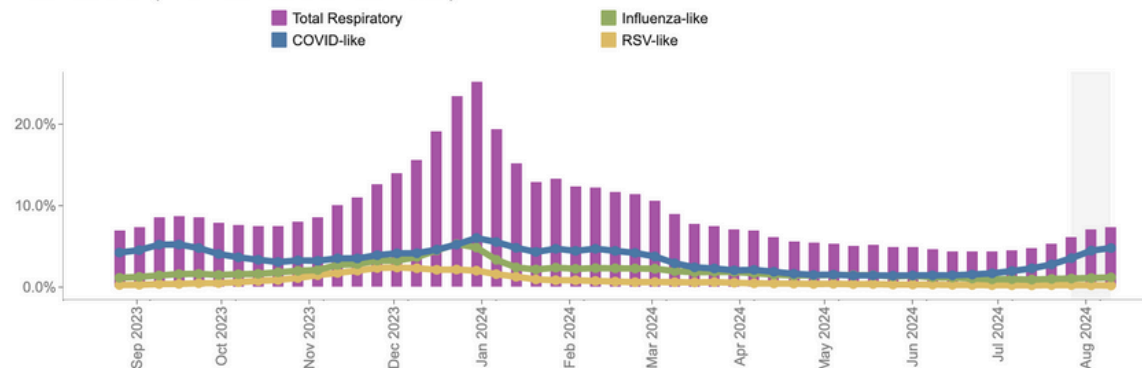
Average COVID-19 virus copies found per person per week from participating North Carolina wastewater treatment plants. COVID-19 virus particles appearing in wastewater can signal how quickly the virus is spreading, even if people don't get tested or have symptoms. Levels of influenza and RSV can also be measured in wastewater. [More Info](#)

(NCDHHS, 2024)

EMERGENCY DEPARTMENT VISITS FOR RESPIRATORY VIRUS

This metric shows the percent of emergency department visits that are for symptoms or diagnoses of COVID-19, RSV, flu, and all acute respiratory illnesses combined. This metric provides an early indication of rising levels of respiratory illness in the community, and insight into the burden on local emergency departments.

Latest Week: **7.3% of emergency room visits** had symptoms of a respiratory virus, **an increase** from the week before. (The week before was 7.0%.)



Percentage of North Carolina emergency department visits with symptoms or a diagnosis of a respiratory virus. [More info](#)

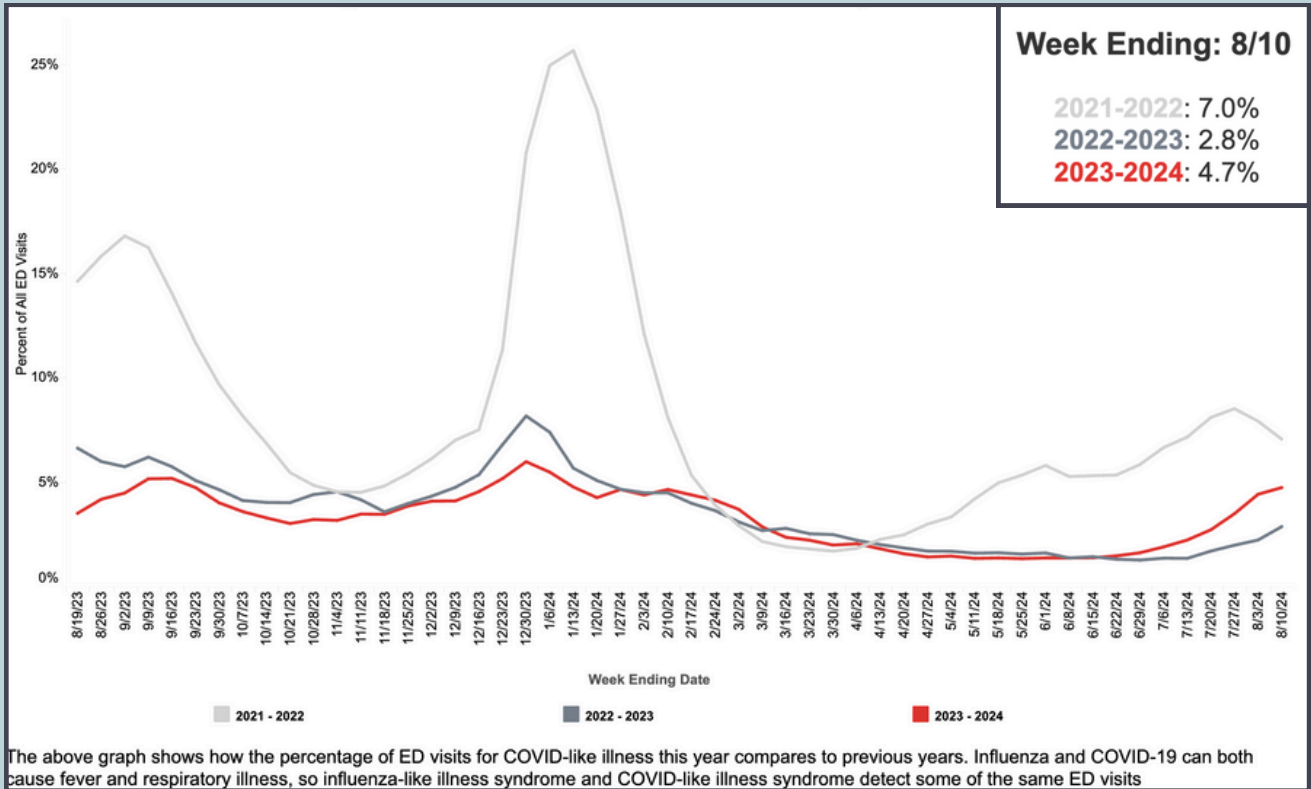
(NCDHHS, 2024)

North Carolina Respiratory Surveillance Data Update

Data from NCDHHS Respiratory Disease Dashboard accessed 8/14/2024

SEASONAL EMERGENCY DEPARTMENT VISITS FOR COVID-LIKE ILLNESS OVER TIME

This metric shows the percent of emergency department visits that are for symptoms or diagnoses of COVID-19. This metric shows levels of COVID-19 in the community each year.



Week Ending: 7/13

2021-2022: 7.1%
2022-2023: 1.3%
2023-2024: 2.2%

Week Ending: 7/20

2021-2022: 8.1%
2022-2023: 1.7%
2023-2024: 2.6%

Week Ending: 7/27

2021-2022: 8.5%
2022-2023: 1.9%
2023-2024: 3.2%

Week Ending: 8/3

2021-2022: 7.9%
2022-2023: 2.2%
2023-2024: 4.4%

The below table shows the change compared to the prior week's percentage of ED visits for COVID-like illness for the week ending 8/10/2024

Statewide	Trend	Percent of ED Visits
2023 - 2024	Increased	0.32%

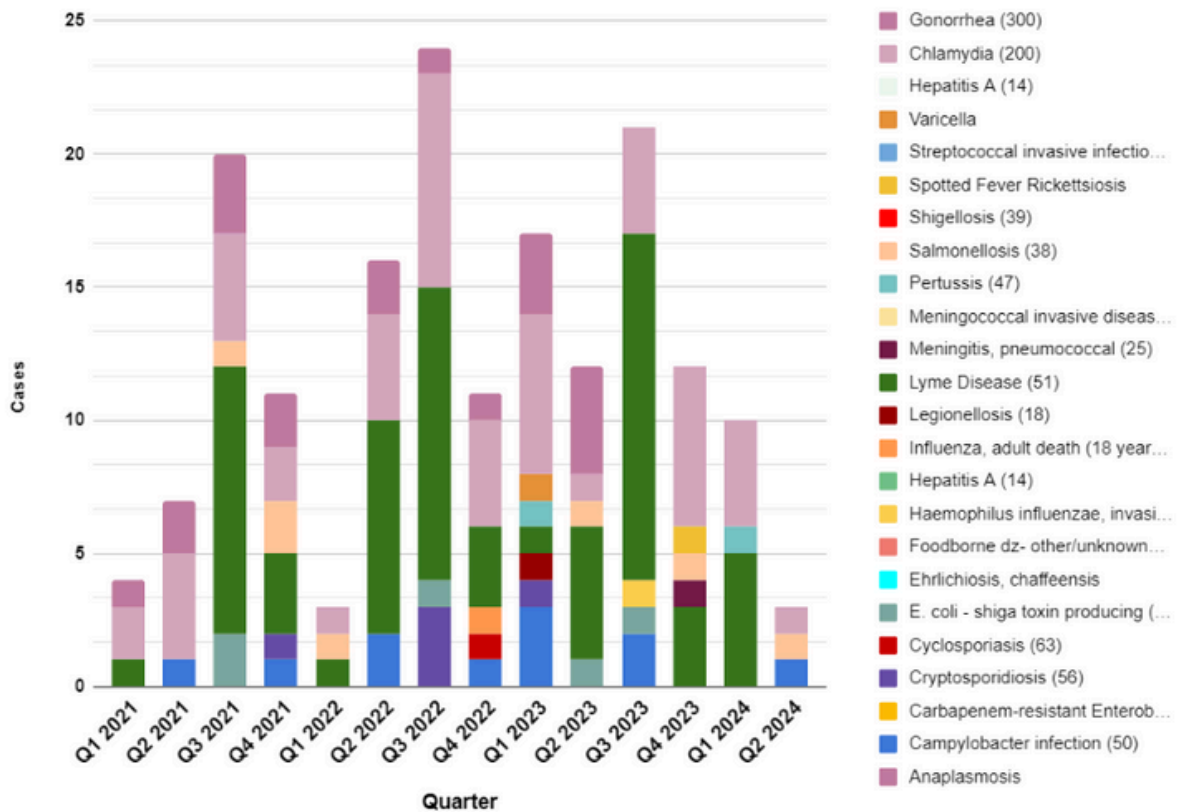
(NCDHHS, 2024)

Allegheny County Updates

Data from the North Carolina Electronic Disease Surveillance System, accessed 8/1/2024

Many enteric, or gastrointestinal, illnesses are highly contagious and easily transmitted from person to person in group settings. Local health departments like AppHealthCare receive and investigate reports of communicable disease outbreaks, including food-borne, water-borne and other enteric illnesses, within the community.

Allegheny County Quarterly Communicable Disease Cases



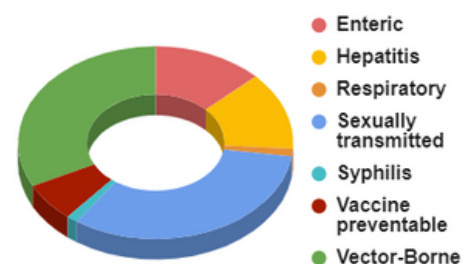
Most Prevalent Communicable Diseases in Allegheny County in 2023

Reportable Communicable Disease	Allegheny Incidence	NC Incidence Rate
Lyme disease	214.6	2.1
Chlamydia	149.9	608.5
Hepatitis C- Chronic	35.3	70.2
Gonorrhea	61.7	243.5
Campylobacteriosis	44.1	23.8
Pertussis	17.6	1.0
Shiga toxin producing E. coli	17.6	5.2
Salmonellosis	17.6	21.1

Allegheny Communicable Disease Trends

- Lyme disease cases remain the most prevalent in the county and annually are highest in the second and third quarters of the year (April through September).
- Allegheny residents had 101.0 times the risk of getting Lyme disease as compared to the rest of North Carolina in 2023 (95% CI 66.4, 153.8),
- Chlamydia and gonorrhea remain common across the county.
- Diseases that spread through food or water increase in the summer. Salmonella and campylobacter, common food borne illnesses, have been common this year.

Allegheny County Communicable Disease Cases by type of Transmission



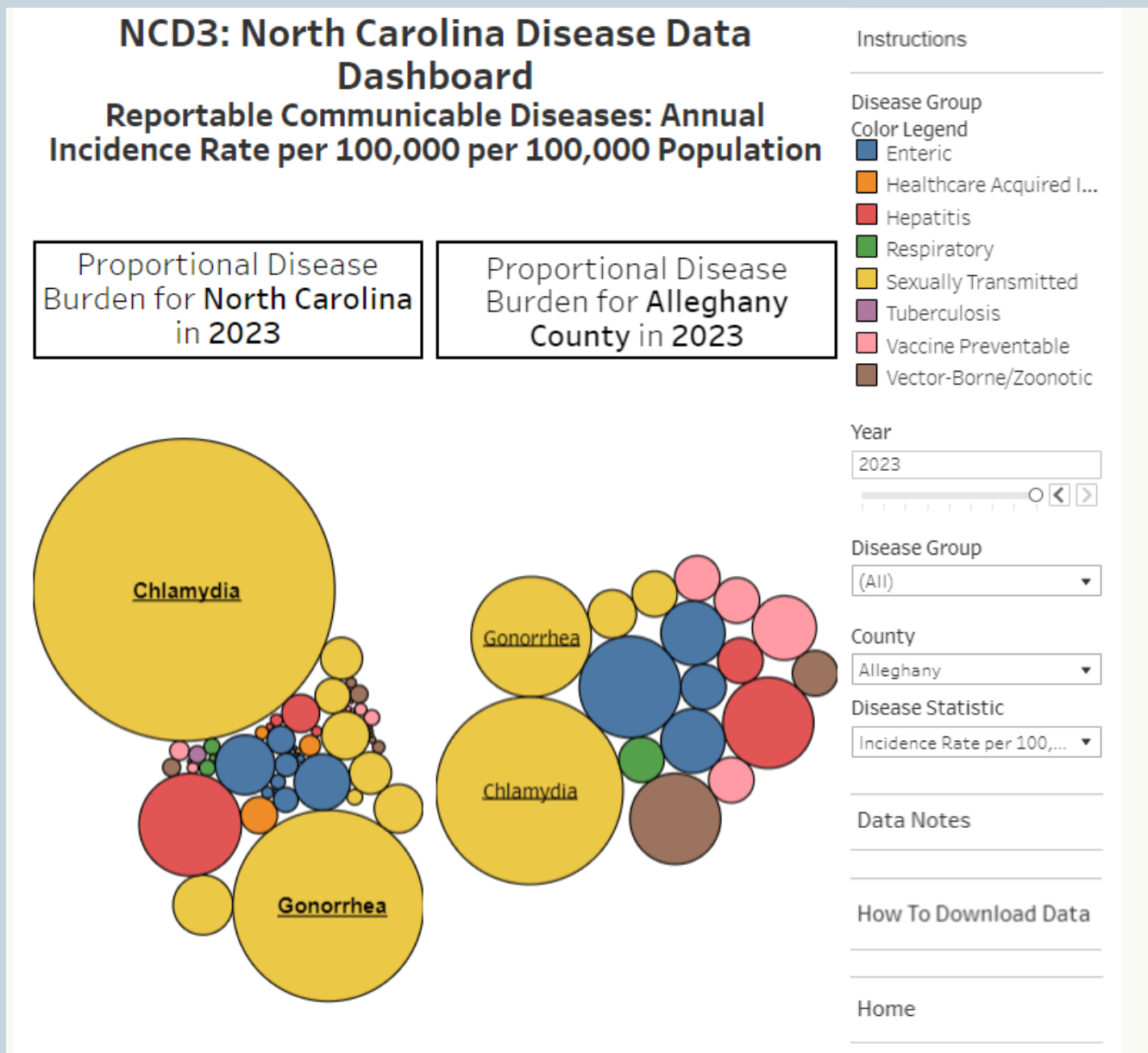
North Carolina incidence rates from the North Carolina Interactive Disease Data Dashboard, which only provide confirmed and probable cases, where the data for Allegheny County includes suspect cases as well for diseases spread by ticks. For more information, refer to 'Data Notes' page.

Allegheny County 2023 Proportional Disease Burden

Data from The North Carolina Department of Health and Human Services, Division of Public Health's Interactive Disease Data Dashboard (NCD3), accessed 8/1/2024

The figure below shows the proportional disease burden in North Carolina as compared to Allegheny County by disease group, with the disease with the highest proportional disease burden detailed. To hover and view each of the individual diseases and their incidence rate, refer to NCD3, the North Carolina Disease Data Dashboard.

Reportable Communicable Diseases: Annual Incidence Rates per 100,000 Population



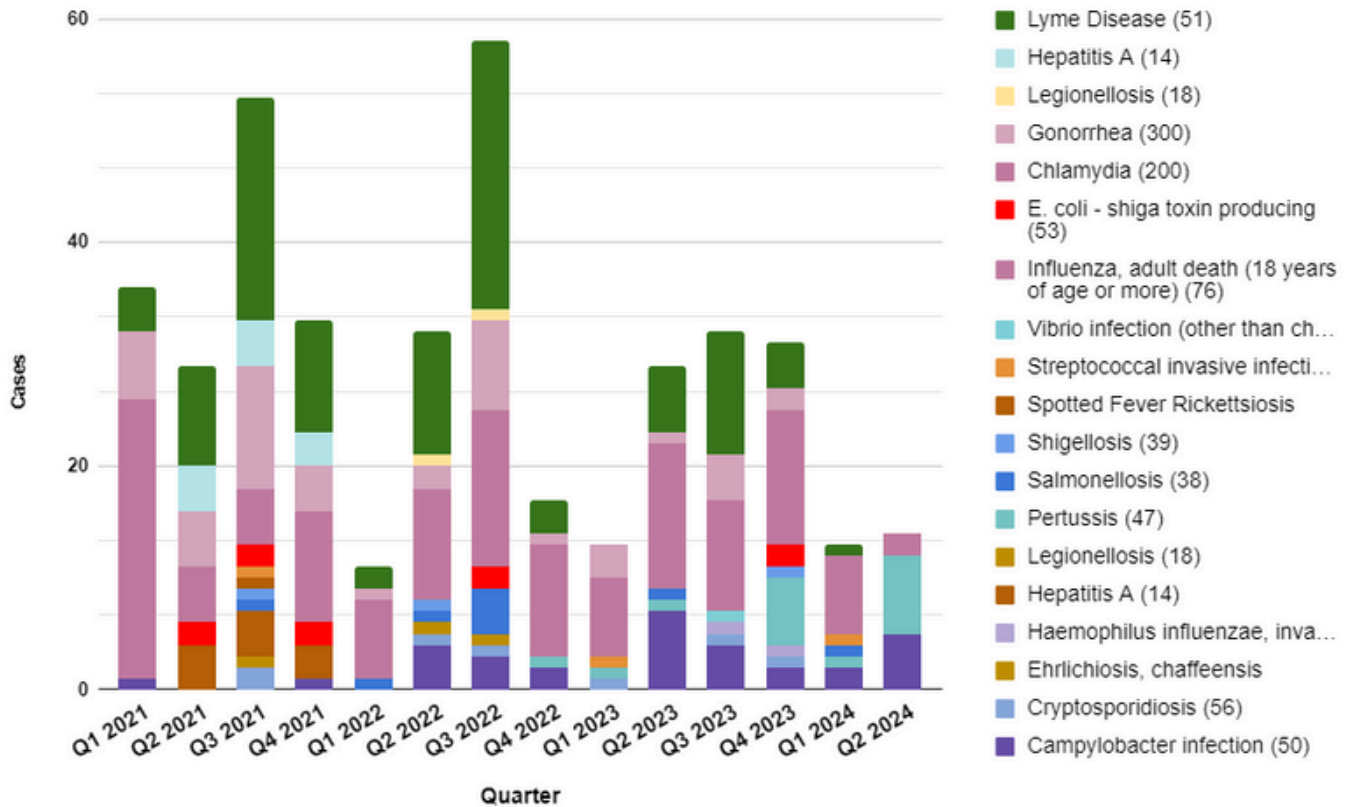
(NCDHHS, 2024)

Ashe County Updates

Data from the North Carolina Electronic Disease Surveillance System, accessed 8/1/2024

Many enteric, or gastrointestinal, illnesses are highly contagious and easily transmitted from person to person in group settings. Local health departments like AppHealthCare receive and investigate reports of communicable disease outbreaks, including food-borne, water-borne and other enteric illnesses, within the community.

Ashe County Quarterly Communicable Disease Cases



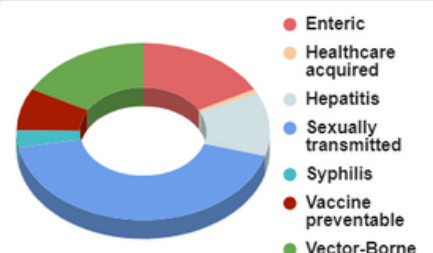
Most Prevalent Communicable Diseases in Ashe County in 2023

Reportable Communicable Disease	Ashe Incidence	NC Incidence Rate
Chlamydia	158.9	608.5
Lyme disease	81.2	2.1
Campylobacteriosis	51.7	23.8
Hepatitis C- Chronic	48.0	70.2
Gonorrhea	37.0	243.5
Pertussis	29.8	1.0

Ashe Communicable Disease Trends

- Ashe County has seen an increase in vaccine-preventable diseases in the past year, with cases of pertussis (whooping cough) increasing significantly through the winter of 2023 (October through December 2023) and through Spring 2024 (April through June 2024).
- Diseases that spread through food or water increase in the summer, which has been seen with campylobacteriosis in Ashe County in 2024.
- Food borne illnesses including campylobacteriosis, shiga-toxin producing E.coli, salmonellosis, and cryptosporidiosis have been common over the past year in Ashe County.
- Chlamydia remains common across the county.

Ashe County Communicable Disease Cases by type of Transmission



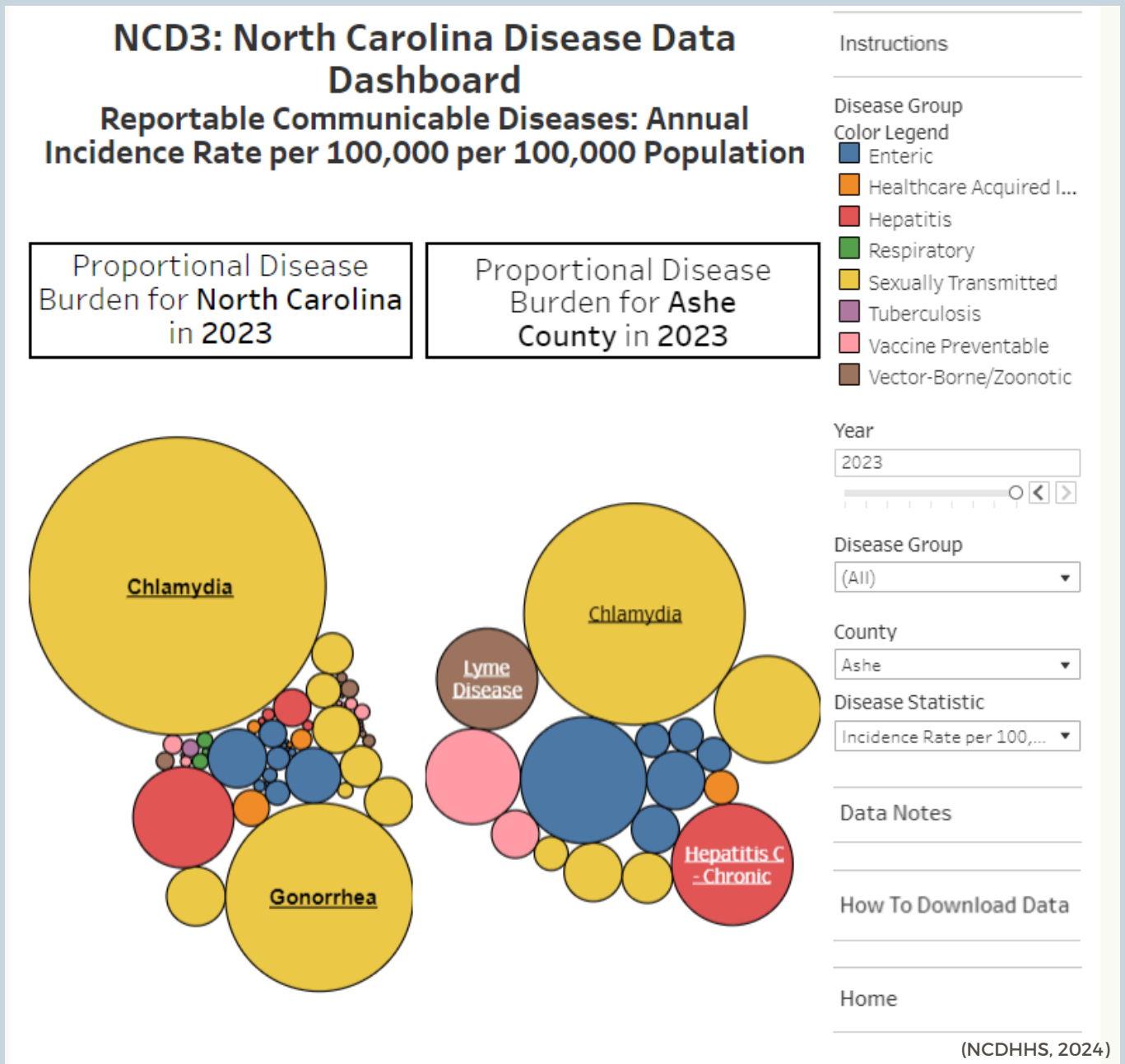
North Carolina incidence rates from the North Carolina Interactive Disease Data Dashboard, which only provide confirmed and probable cases, where the data for Ashe County includes suspect cases as well for diseases spread by ticks. For more information, refer to 'Data Notes' page.

Ashe County 2023 Proportional Disease Burden

Data from The North Carolina Department of Health and Human Services, Division of Public Health's Interactive Disease Data Dashboard (NCD3), accessed 8/1/2024

The figure below shows the proportional disease burden in North Carolina as compared to Ashe County by disease group, with the disease with the highest proportional disease burden detailed. To hover and view each of the individual diseases and their incidence rate, refer to NCD3, the North Carolina Disease Data Dashboard.

Reportable Communicable Diseases: Annual Incidence Rates per 100,000 Population

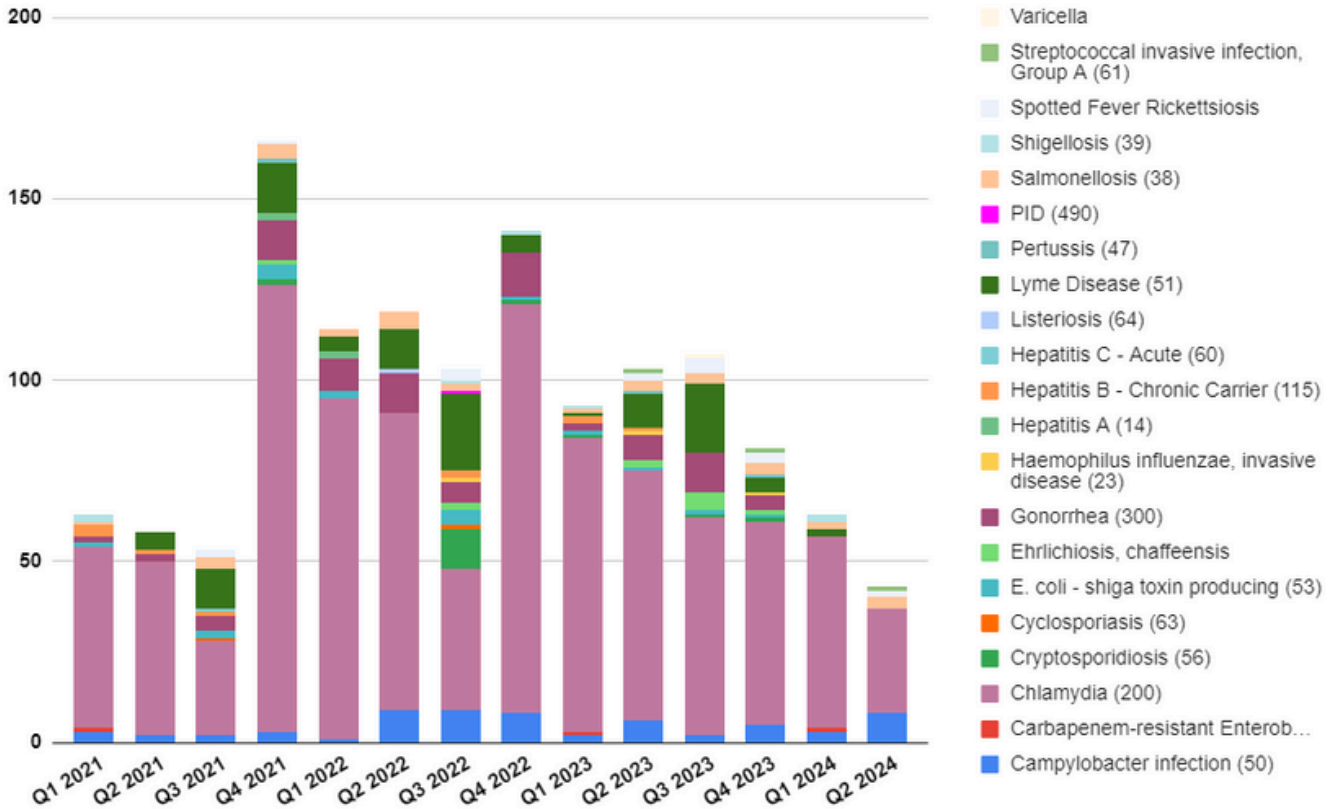


Watauga County Updates

Data from the North Carolina Electronic Disease Surveillance System, accessed 8/1/2024

Many enteric, or gastrointestinal, illnesses are highly contagious and easily transmitted from person to person in group settings. Local health departments like AppHealthCare receive and investigate reports of communicable disease outbreaks, including food-borne, water-borne and other enteric illnesses, within the community.

Watauga County Quarterly Communicable Disease Cases



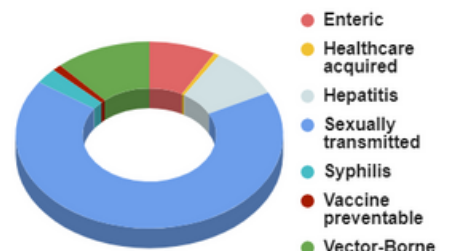
Most Prevalent Communicable Diseases in Watauga County in 2023

Reportable Communicable Disease	Watauga Incidence	NC Incidence Rate
Chlamydia	495.0	608.5
Lyme disease	63.5	2.1
Hepatitis C- Chronic	45.7	70.2
Gonorrhea	43.8	243.5
Campylobacteriosis	29.2	23.8
Salmonellosis	20.1	21.1

Watauga Communicable Disease Trends

- Chlamydia remains the most common communicable disease in Watauga County.
- Diseases that spread through food or water increase in the summer, which has been seen with campylobacteriosis at increasing rates in Watauga County in 2024.
- Spotted fever rickettsiosis has become increasingly common in Watauga County in the past year (since Spring of 2023).
- Lyme disease remains frequent in Watauga County; residents had 29.9 times the risk (95% CI 21.0, 42.7) of getting Lyme disease as compared to the rest of North Carolina in 2023.
- Ehrlichiosis chaffeensis, a disease spread by ticks, is more common in Watauga than the majority of the state.

Watauga County Communicable Disease Cases by type of Transmission



North Carolina incidence rates from the North Carolina Interactive Disease Data Dashboard, which only provide confirmed and probable cases, where the data for Watauga County includes suspect cases as well for diseases spread by ticks. For more information, refer to 'Data Notes' page.

Watauga County 2023 Proportional Disease Burden

Data from The North Carolina Department of Health and Human Services, Division of Public Health's Interactive Disease Data Dashboard (NCD3), accessed 8/1/2024

The figure below shows the proportional disease burden in North Carolina as compared to Watauga County by disease group, with the disease with the highest proportional disease burden detailed. To hover and view each of the individual diseases and their incidence rate, refer to NCD3, the North Carolina Disease Data Dashboard.

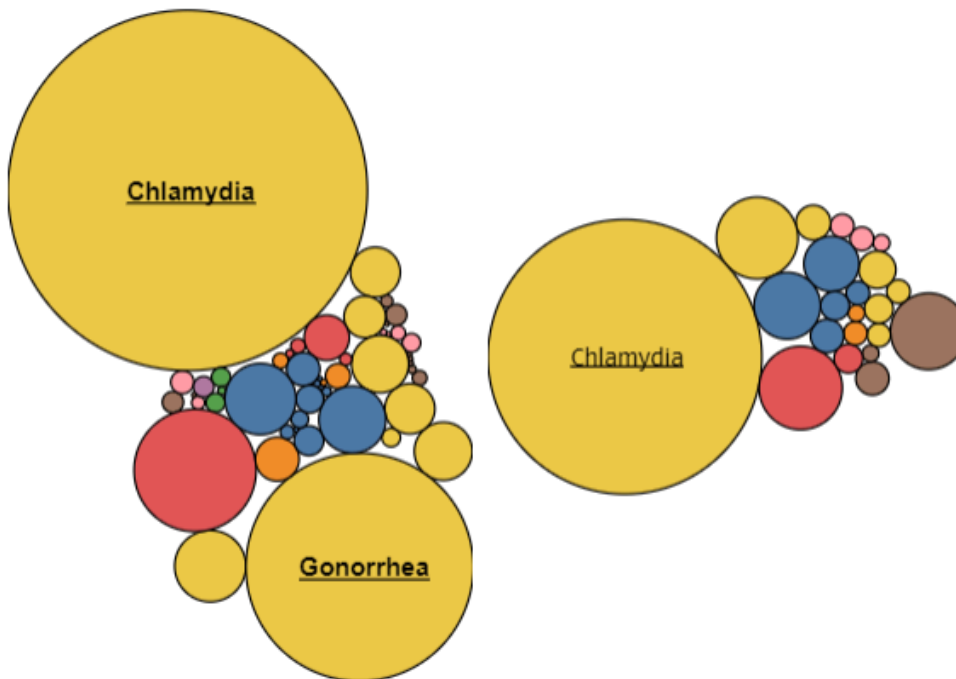
Reportable Communicable Diseases: Annual Incidence Rates per 100,000 Population

NCD3: North Carolina Disease Data Dashboard

Reportable Communicable Diseases: Annual Incidence Rate per 100,000 per 100,000 Population

Proportional Disease Burden for North Carolina in 2023

Proportional Disease Burden for Watauga County in 2023



Instructions

Disease Group

Color Legend

Enteric

Healthcare Acquired I...

Hepatitis

Respiratory

Sexually Transmitted

Tuberculosis

Vaccine Preventable

Vector-Borne/Zoonotic

Year

2023

Disease Group

(All)

County

Watauga

Disease Statistic

Incidence Rate per 100,...

Data Notes

How To Download Data

Home

(NCDHHS, 2024)

2023 Tick-Borne Disease Data

Data from the North Carolina Electronic Disease Surveillance System, accessed 8/15/2024

In North Carolina, Tick borne disease data are underreported and underdiagnosed. Data presented here reflect the total numbers of cases that are “confirmed,” “probable,” and “suspect,” due to a high number of individuals who do not complete second tier testing and due to the reporting gap of symptoms and of diagnoses without a test result, which impacts the case classification.

Lyme disease

Lyme disease is an illness caused by the bacteria *Borrelia burgdorferi*, transmitted by the bite of an infected blacklegged tick. Symptoms usually appear within 30 days of tick bite, often beginning with a rash. If untreated, illness can present as joint pain, headache, fatigue, and swollen lymph nodes.

Alleghany residents had 62.6 times the risk of getting Lyme disease as compared to the rest of North Carolina in 2023 according to preliminary data (95% CI 41.5, 94.6), **Ashe County residents had 23.5 times the risk** (95% CI 15.3, 36.1), and **Watauga County residents had 19.0 times the risk** (95% CI 13.5, 26.9) than the broader state according to preliminary data. The risk of contracting Lyme disease for North Carolina residents in 2023 was 2.1 cases per 100,000 people, where the risk of getting Lyme disease in the same timeframe was 214.6 cases per 100,000 residents in Alleghany County, 81.2 cases per 100,000 residents in Ashe County, and 63.5 cases per 100,000 residents in Watauga County according to preliminary data.

Rickettsiosis

Spotted fever rickettsioses are a group of diseases caused by closely related bacteria, that includes Rocky Mountain spotted fever (RMSF). These bacteria are spread to people through the bite of infected ticks and mites. RMSF positive laboratory results may also be caused by other tick-borne species of *Rickettsia* due to cross-reactivity. Signs and symptoms can include fever, headache, rash, nausea or vomiting, stomach pain, muscle pain, and lack of appetite. Symptoms can include a dark scab (eschar) at the site of the tick or mite bite, which often emerges a few days to weeks after the bite. **Due to the overlap in symptomology, when RMSF or rickettsiosis is indicated, ehrlichiosis should be considered as well.**

Ehrlichiosis chaffeensis

Ehrlichiosis is the general name used to describe diseases caused by the bacteria *Ehrlichia chaffeensis*, *E. ewingii*, or *E. muris eauclairensis* in the United States. Ehrlichiosis resulting from *E. chaffeensis* is the primary form found in the High Country. Ehrlichiosis is spread to people primarily through tick bites from the lone star tick and the deer tick. People with ehrlichiosis will often have fever, chills, headache, muscle aches, and sometimes upset stomach. Signs and symptoms of ehrlichiosis typically begin within 1-2 weeks after the bite of an infected tick. Tick bites are usually painless, and many people do not remember being bitten. Up to 1 in 3 people with ehrlichiosis report a rash; rash is more common in people with *E. chaffeensis* ehrlichiosis and generally occurs more often in children than adults. Rash usually develops 5 days after fever begins. If a person develops a rash, it can look like red splotches or pinpoint dots.

Ehrlichiosis is under-identified in Alleghany, Ashe, and Watauga Counties. Due to the overlap in symptomology, when RMSF or any spotted fever rickettsiosis is indicated, ehrlichiosis should be considered as well.

Tick-Borne Disease Incidence Rates per 100,000 Population in 2023

Ehrlichiosis chaffeensis incidence rate (cases per 100,000 residents in 2023)

Alleghany County: --
Ashe County: --
Watauga County: 14.5
North Carolina: 1.0

Lyme disease incidence rate (cases per 100,000 residents in 2023)

Alleghany County: 214.6
Ashe County: 81.2
Watauga County: 63.5
North Carolina: 2.1

Spotted Fever Rickettsiosis incidence rate (cases per 100,000 residents in 2023)

Alleghany County: 8.9
Ashe County: --
Watauga County: 16.3
North Carolina: 2.1

References and Data Notes

References

North Carolina Department of Health and Human Services (2023). COVID-19 data dashboard.

<https://covid19.ncdhhs.gov/dashboard>

North Carolina Department of Health and Human Services (2023). Interactive Data Dashboard (NCD3).

<https://epi.dph.ncdhhs.gov/cd/figures.html>

North Carolina Department of Health and Human Services (2023). Quarterly Data Dashboard (NCD3).

<https://epi.dph.ncdhhs.gov/cd/figures.html><https://epi.dph.ncdhhs.gov/cd/dashboards/quarterly.html>

North Carolina Electronic Disease Surveillance System (2023). North Carolina Division of Public Health, North Carolina Department of Health and Human Services.

CDC's Health Alert Network (2024). Latest News from Health Alert Network. Centers for Disease Control and Prevention, Emergency Preparedness and Response.

<https://emergency.cdc.gov/han/index.asp>

Data Notes

Cases are categorized by the reporting county, and have been updated to include both confirmed and probable cases. The county associated with each case indicates where the individual is a resident, and does not inherently indicate where they contracted the disease. For tick-borne diseases, suspect cases are also included due to the disease landscape and local prevalence of infected ticks in addition to known reporting and confirmatory testing barriers in reaching probable or confirmed case definitions. Confirmed and probable cases are classified based on case definitions for the respective disease according to the NC Communicable Disease Manual and as classified in the North Carolina Electronic Disease Surveillance System. Surveillance case definitions of "confirmed," "probable," "suspect," etc. are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient's health needs. Cases not reported include sensitive cases that may be identifiable due to low numbers and concerns for patient identity and privacy. Cases are categorized monthly based on their earliest date of their symptoms, or if unavailable or not relevant, their test date. Due to delays in reporting, data in recent months may be incomplete, and data in prior months may change as cases are reported. For further data on communicable diseases in NC counties by year, refer to the North Carolina Division of Public Health, North Carolina Disease Data Dashboard.

Data that are displayed quarterly follow the calendar year, with the first quarter including January-March, the second including April through June, the third including July through September, and the fourth including October through December of the respective year.



Alleghany (336) 372-5641 | Ashe (336) 246-9449 | Watauga (828) 264-4995

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