

Communicable Disease Update

Ashe, Alleghany, and Watauga Counties April 2025

COMMUNICABLE DISEASE LANDSCAPE SUMMARY

- Measles has been increasing globally. Local efforts are working to prepare the community in the event measles cases arrive to North Carolina and the High Country.
- Tick borne disease cases are starting to increase. Diseases like Lyme disease and ehrlichiosis reach their peaks in the summer months, but start their season in early spring. Nymph ticks emerge in the spring, and are similar to the size of a poppyseed. Their size makes tick checks increasingly important due to the difficulty in noticing them without tick checks.
- Identification of ehrlichiosis cases has been increasing in Ashe and Watauga Counties, but remain under-identified in the High Country overall. Ehrlichiosis presents with symptoms very similar to spotted fever rickettsiosis.
- Respiratory illness rates are decreasing, following high levels of illness across the High Country and the broader state this winter.
 - Pertussis cases were high in Ashe and Alleghany Counties in 2024.
- Food and waterborne diseases remain prevalent in the High Country, with higher rates than the broader state.
 - Norovirus rates have been high in 2025. Stay home when sick and practice hand hygiene and food safety.

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Communicable Disease Update, 2024

Data from the CDC and NCDHHS, accessed 4/9/2025

CURRENT DISEASE LANDSCAPE

- With measles increasing globally, and with active outbreaks in the United States, local efforts are
 underway to prepare for the possibility of measles cases. This includes hospitals developing triage
 systems, the development and dissemination of provider education on measles, recommendation of the
 evaluation of infection prevention systems, fit testing for school nurses, and more. Reach out to your
 primary care provider, or to AppHealthCare with concerns.
- Tick borne diseases are starting to increase. Disease like Lyme disease and ehrlichiosis reach their peaks in the summer months, but start the season in early spring.
 - While adult ticks are always a risk, nymph ticks emerge in the spring, and are similar to the size of a poppyseed. Their size makes noticing nymph ticks without actively doing a tick check very difficult.
 - Ehrlichiosis cases have been increasing, but remain under-identified in Ashe, Alleghany, and Watauga counties. It presents with symptoms very similar to spotted fever rickettsiosis (like Rocky Mountain Spotted Fever).
 - The best prevention for Lyme disease and other tick-borne diseases includes using EPA and CDC approved repellents like DEET or picaridin, doing daily tick checks, and showering daily.
 - When applying both repellent and sunscreen, apply the repellent on top of sunscreen. Always follow manufacturer directions.
 - Many food and waterborne diseases reach high levels in the summer.
 - **Norovirus rates have been high in 2025.** Avoid working when sick, practice hand hygiene, and practice food safety.
 - Washing your hands frequently including when coming in from outside or after touching an animal, cooking meat and eggs thoroughly, storing food safely, and practice other safe food handling are ways to decrease the risk of disease.
 - When swimming, tubing, or recreating in bodies of water, avoid getting water in your mouth and do not drink the river or lake water.
 - Exposures to feral and wild animals, including stray dogs and cats, can lead to the need for rabies prevention treatment (post exposure prophylaxis). Instead of approaching wild animals or strays, leave them be and reach out to animal control with concerns.

COMMUNICABLE DISEASE KEY POINTS FROM QUARTER FOUR, OCTOBER THROUGH DECEMBER, 2024

Like much of the western portion of the state, Ashe and Alleghany Counties saw high rates of campylobacteriosis cases between October and December of 2024. In comparison to the rest of the state, rates of Lyme disease in the High Country were high from October through December 2024.



Alleghany County saw a pertussis increase in the fall and winter of 2024, similar to the the experiences of other portions of Western North Carolina.

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North Carolina Respiratory Surveillance Data Update

Data from NCDHHS Respiratory Disease Dashboard accessed 4/14/2025

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. Viral activity levels are shown on a spectrum, where minimum levels of virus in the wastewater are 0 to 1.5, low is 1.6 to 3, moderate is 3.1 to 4.5, high is 4.6 to 8, and very high is any level greater than 8.1.



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.



Alleghany County Updates

Data from NCDHHS and the North Carolina Electronic Disease Surveillance System accessed 4/9/2025.

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.



Alleghany Communicable Disease Trends

- Diseases that spread through food or water increase in the summer.
 Food and waterborne illness rates remain high.
- Lyme disease cases remain the most prevalent tick borne disease in the county, with most cases seen during the spring and summer. Rates of ehrlichiosis have been increasing.
- Alleghany residents had 43.7 times the risk (95% CI 23.2, 82.3) of getting Lyme disease as compared to the rest of North Carolina in 2024, according to preliminary data.
- Chlamydia and gonorrhea remain common across the county.





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

Ashe County Updates

Data from the North Carolina Electronic Disease Surveillance System, accessed 4/9/2025.

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 Communicable Disease Trends

- Ashe County saw an increase in vaccine-preventable diseases in the past year, with cases of pertussis (whooping cough) increasing significantly
- Diseases that spread through food or water have remained common.
- Lyme disease cases remain the most prevalent tick borne disease in the county, with most cases seen during the spring and summer. Rates of ehrlichiosis have been increasing.
- Ashe residents had 26.0 times the risk (95% CI 15.1, 44.5) of getting Lyme disease as compared to the rest of North Carolina in 2024, according to preliminary data.
- Chlamydia and gonorrhea remain common across the county.



Ashe County Food and Waterborne Disease Data by Year

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.

Watauga County Updates

Data from the North Carolina Electronic Disease Surveillance System, accessed 4/9/2025.

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 Communicable Disease Trends

- Chlamydia remains the most common communicable disease in Watauga County.
- Diseases that spread through food or water have continued at high rates in Watauga County in 2024.
- Spotted fever rickettsiosis has continued on the rise in Watauga County, as has ehrlichiosis which has become the most prevalent tick-borne disease in Watauga County in 2024.
- Watauga County residents had 20.9 times the risk (95% CI 13.5, 32.5) of getting Lyme disease as compared to the rest of North Carolina in 2024, according to preliminary data.



Watauga County Food and Waterborne Disease Data by Year

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.

2024 Tick-Borne Disease Data

Data from the North Carolina Electronic Disease Surveillance System, accessed 4/9/2025.

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 case classification under-identification resulting from a high number of individuals who do not complete second tier testing, and due to reporting gaps.

Lyme disease

Lyme disease is an illness caused by the bacteria Borrelia burgdorferi, transmitted by the bite of an infected blacklegged tick. **Alleghany residents had 43.7 times the risk of getting Lyme disease** as compared to the rest of North Carolina in 2024 according to preliminary data (95% CI 23.2, 82.3), **Ashe County residents had 26.0 times the risk** (95% CI 15.1, 44.5), and **Watauga County residents had 20.9 times the risk** (95% CI 13.5, 32.5) than the broader state according to preliminary data.

The risk of contracting Lyme disease for North Carolina residents in 2024 was 2.1 cases per 100,000 people, where the risk of getting Lyme disease in the same timeframe was 87.9 cases per 100,000 residents in Alleghany County, 51.4 cases per 100,000 residents in Ashe County, and 40.0 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. **Due to the overlap in symptomology, when RMSF or rickettsiosis are being considered, ehrlichiosis should be considered as well.**

Watauga residents had 11.4 times the risk of getting spotted fever rickettsiosis as compared to the rest of North Carolina in 2024 according to preliminary data (95% CI 6.2, 21.0).

Ehrlichiosis

Ehrlichiosis is the general name used to describe diseases caused by ehrlichia bacteria. Ehrlichiosis is primarily spread to people through tick bites from lone star ticks and deer ticks. Due to the overlap in symptomology spotted fever rickettsiosis is indicated, ehrlichiosis should be considered as well. Ehrlichiosis is under-identified in Alleghany, Ashe, and Watauga Counties.

Watauga residents had 33.3 times the risk of getting ehrlichiosis as compared to the rest of North Carolina in 2024 according to preliminary data (95% CI 22.5, 49.3), and Ashe residents had 10.2 times the risk than the broader state (95% CI 4.2 24.8) according to preliminary data.

Watauga Tick Borne Disease by Year



Ashe County Tick Borne Disease by Year



Alleghany County Tick Borne Disease by Year



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The Impact of Communicable Disease Management Work on the Community

Communicable disease programs protect the community by:

Monitoring community members Helping long term care who have been exposed to highfacilities like nursing Supporting Ensuring our risk diseases. This has commonly homes prevent or school nurses farmworkers manage disease looked like calling local farmers and daycare have access to who have been exposed to bird flu outbreaks to keep our workers when vaccines against after they have been exposed to community's most there are communicable an infected animal, or monitoring vulnerable populations communicable diseases to keep missionaries returning from safe. disease cases them safe, and to countries where they were prevent missed in schools or exposed to a disease like Ebola daycares, from work and the virus. notifying those resulting impacts who have been on farms. exposed, to providing guidance on cleaning and keeping other kids safe. Quickly offering treatment to prevent SCHOOL illness in infants and pregnant folks when they have been exposed to a disease Т like pertussis that can be exceptionally dangerous to pregnant folks and babies. Ensuring that all pregnant folks who test positive for Hepatitis B are properly followed and treated, to allow exposed babies to get the healthcare they need as soon as possible to prevent them from developing the disease. Tracking where someone may have gotten sick when they get food poisoning, and identifying patterns of illness. Preventing citizens from Following up and Confirming accumulating medical costs educating Educating patients with of rabies prevention restaurants and doctors on local tuberculosis take treatment by responding to every animal bite in the businesses when disease trends, their medication concerns arise. so they know every single day, community, and testing what diseases to prevent the animals when possible, are common in risk to others preventing the unnecessary the community. and the spread treatment of people. of the deadly

disease.

References and Data Notes

References

North Carolina Department of Health and Human Services (2025). COVID-19 data dashboard. https://covid19.ncdhhs.gov/dashboard

North Carolina Department of Health and Human Services (2025). Interactive Data Dashboard (NCD3). https://epi.dph.ncdhhs.gov/cd/figures.html

North Carolina Department of Health and Human Services (2025). Quarterly Data Dashboard (NCD3). <u>https://epi.dph.ncdhhs.gov/cd/figures.htmlhttps://epi.dph.ncdhhs.gov/cd/dashboards/quarterly.html</u> North Carolina Electronic Disease Surveillance System (2025). North Carolina Division of Public Health, North Carolina Department of Health and Human Services.

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. While suspect cases are accessible for local county data, state numbers remain preliminary and do not yet include suspect case data. 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 AppHealthCare Call Center: (828) 795-1970 General Communicable Disease Questions: <u>preparedness@apphealth.com</u> Media inquiries: <u>media@apphealth.com</u> <u>www.AppHealthCare.com</u> and follow us on Facebook & Twitter **April 2025 | AppHealthCare**