Alleghany County Communicable Disease Update

TRENDS, UPDATES & IMPORTANT POINTS

- COVID-19 and COVID-like illness levels are decreasing as are hospital admissions and emergency department visits for COVID-19 (NCDHHS, 2023). Treatment is readily available for COVID-19 and has been shown to reduce the risk of developing long-COVID, hospitalization, and severe illness from COVID.

- Updated COVID and influenza (flu) vaccines are available in the community and are the best way to protect against serious illness. Supply chains have delayed the delivery of some brands of vaccines so check with your healthcare provider or pharmacy to see what's available. The COVID-19 vaccine is available for everyone 6 months and older. Visit MySpot.nc.gov for more information on the COVID-19 vaccine.

- As flu season begins, flu shots are readily available for individuals ages 6 months and older. Visit MySpot.nc.gov/Flu for more information on the flu vaccine.

- AppHealthCare plans to begin scheduling appointments for vaccines in the coming days and will announce when appointments are available on their website and social media.

North Carolina COVID-19 and Respiratory Surveillance Updates

Data from the CDC and NCDHHS, accessed 10/13/2023

Alleghany County, New COVID-19 Hospital Admission Level:

LOW

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 **20.0 Million COVID-19 virus particles** per person were found in wastewater samples statewide, **a decrease** from the week before. (The week before was 27.0 Million.)
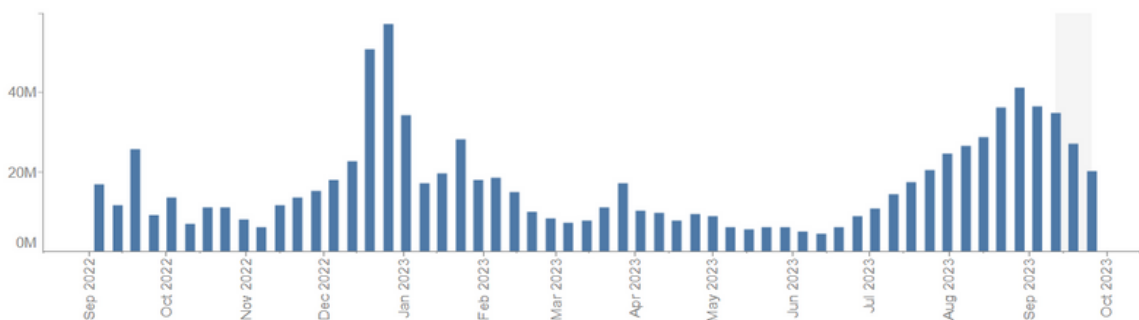

Average COVID-19 virus copies found per person per week from participating North Carolina wastewater treatment plants. COVID-19 virus particles appearing in wastewater can signal how quickly the virus is spreading, even if people don't get tested or have symptoms. Levels of influenza and RSV can also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

(NCDHHS, 2023)

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: **6.7% of emergency room visits** had symptoms of a respiratory virus, **a decrease** from the week before. (The week before was 7.2%.)
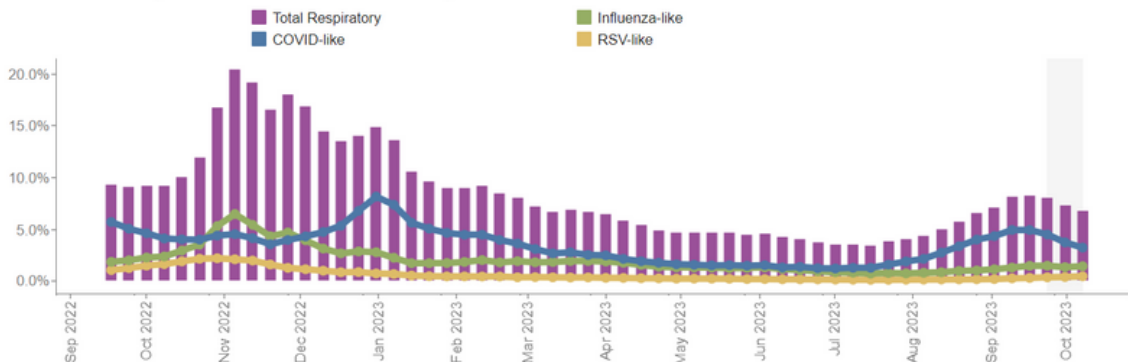
Percentage of North Carolina emergency department visits with symptoms or a diagnosis of a particular respiratory virus. More info

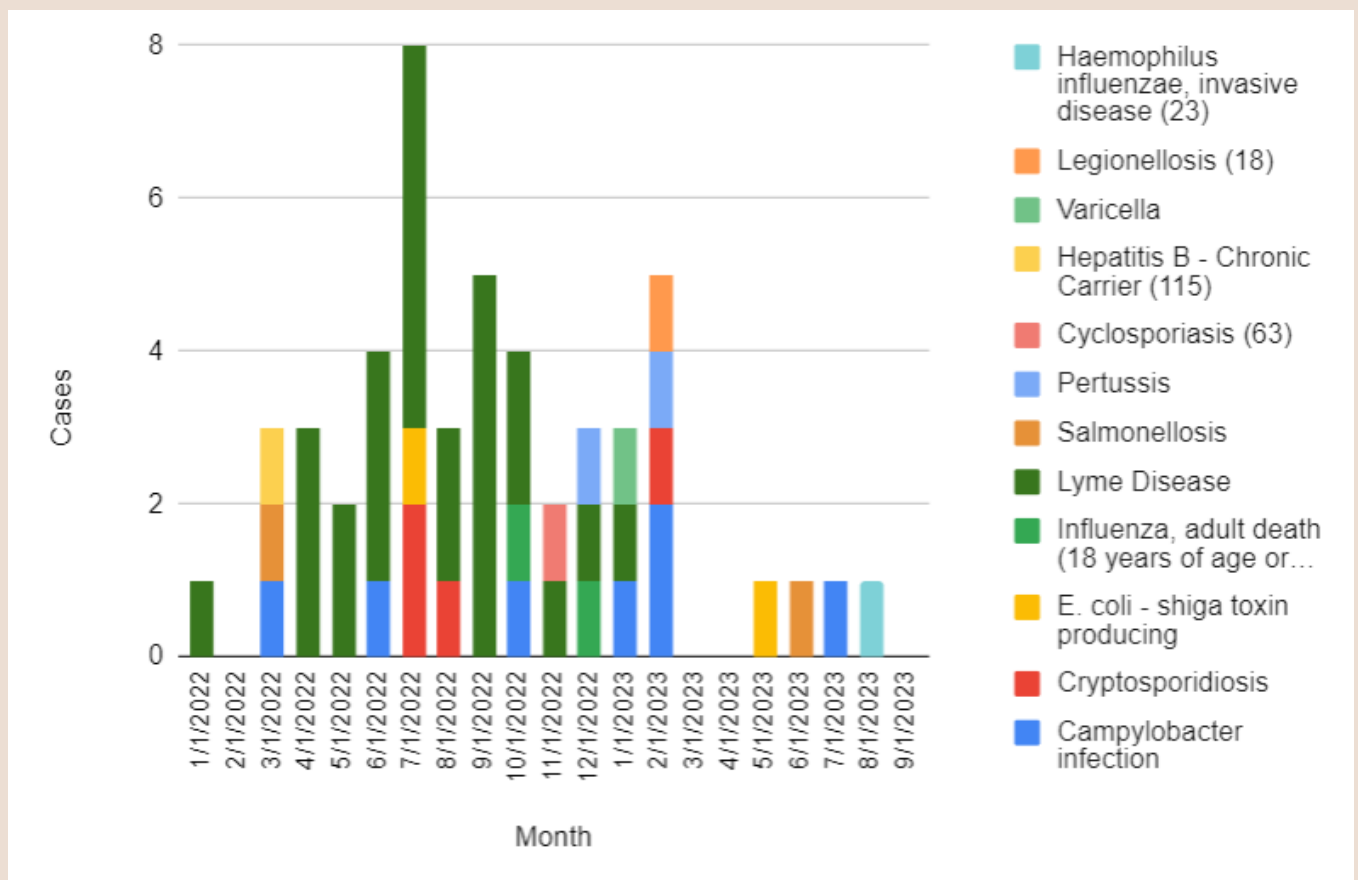(NCDHHS, 2023)

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Alleghany County
General Communicable Disease Data

Data from the North Carolina Electronic Disease Surveillance System, accessed 10/10/2023

Communicable diseases are illnesses that spread from one person to another or from a source in the environment to a person, such as from animals, surfaces, food or water, respiratory droplets, bodily fluids, and bugs. Because communicable diseases can have so much impact on the population, the surveillance and control of such diseases is an important part of protecting the public's health. (CDC, 2023)

The figures below represent the general communicable disease cases in Alleghany County that are reportable in North Carolina, excluding sexually transmitted infections, human immunodeficiency virus, syphilis, Hepatitis C, tuberculosis, and sensitive cases that may be identifiable due to low numbers and concerns for patient identity and privacy.

COMMUNICABLE DISEASE CASES IN ALLEGHANY COUNTY BY MONTH

Legend:
- Haemophilus influenzae, invasive disease (23)
- Legionellosis (18)
- Varicella
- Hepatitis B - Chronic Carrier (115)
- Cyclosporiasis (63)
- Pertussis
- Salmonellosis
- Lyme Disease
- Influenza, adult death (18 years of age or...
- E. coli - shiga toxin producing
- Cryptosporidiosis
- Campylobacter infection

Due to delays in reporting, data in recent months may be incomplete, and data in prior months may change as cases are reported.

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Alleghany County
Vaccine Preventable Disease Data

Data from the North Carolina Electronic Disease Surveillance System, accessed 10/10/2023

Vaccines prevent disease and disease transmission in the people who receive them and they provide protection for the broader community. Because of childhood vaccination programs, diseases like polio, measles, diphtheria, rubella, mumps, and tetanus are no longer widespread in the United States. However, cases and outbreaks of these diseases continue to occur due to travel to and from areas with lower vaccine coverage. Many diseases however are not preventable through vaccines, including but not limited to Lyme disease, rocky mountain spotted fever, and salmonella. (CDC, 2023)

The figures below represent vaccine preventable disease (VPD) cases in Alleghany County by month, as compared to general non-VPD cases (excluding sexually transmitted infections, human immunodeficiency virus, syphilis, chronic Hepatitis C, tuberculosis, and sensitive cases that may be identifiable due to low numbers and concerns for patient identity and privacy).

VACCINE PREVENTABLE DISEASE CASES IN ALLEGHANY COUNTY BY MONTH
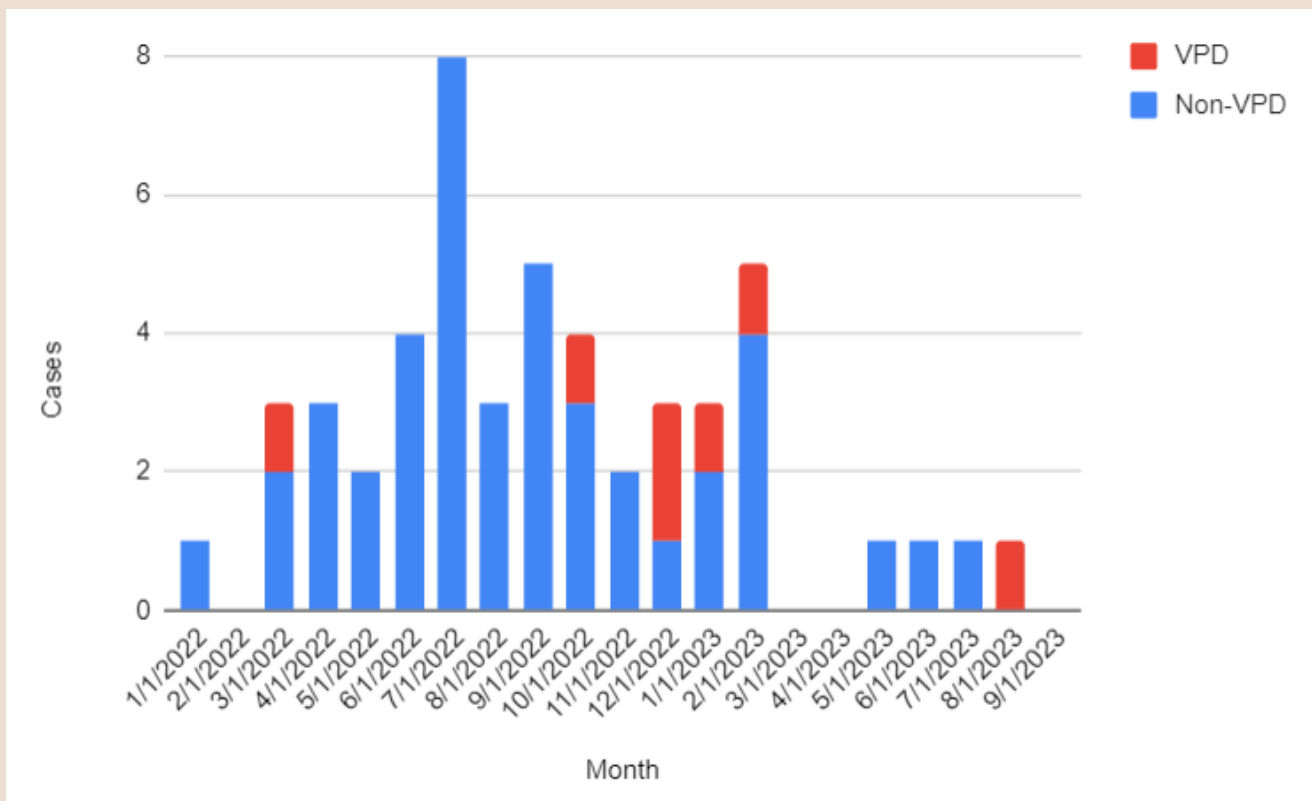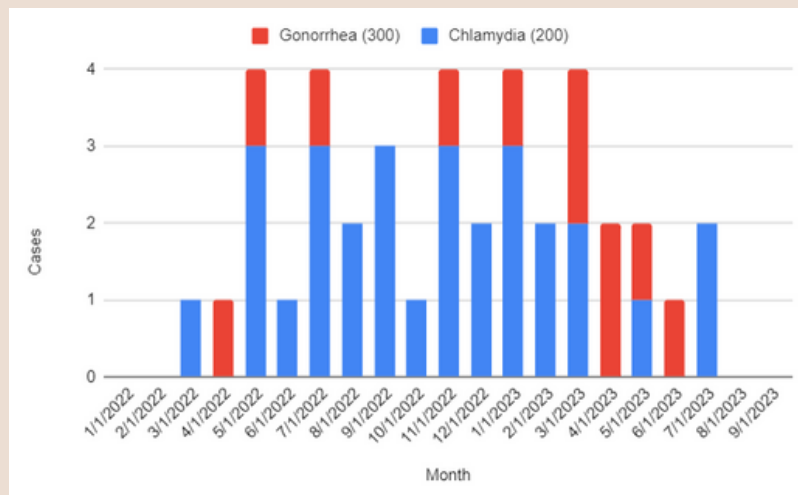

Due to delays in reporting, data in recent months may be incomplete, and data in prior months may change as cases are reported.

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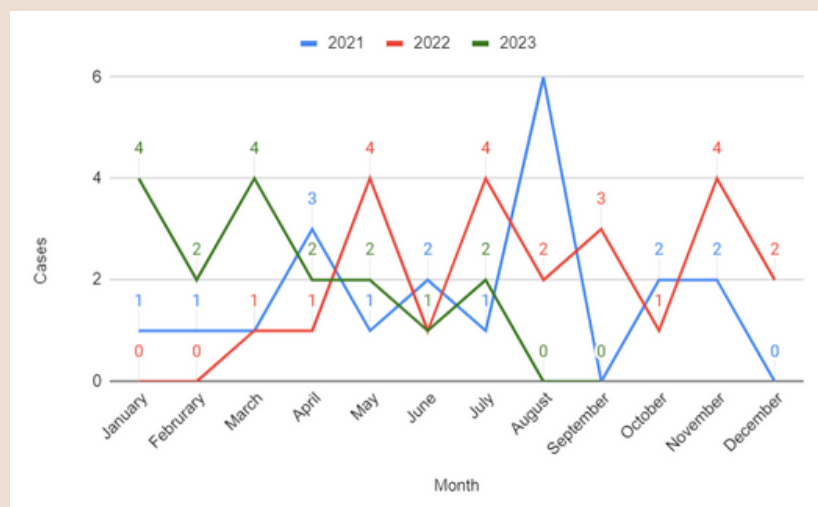# Alleghany County
Sexually Transmitted Infection Data

Data from the North Carolina Electronic Disease Surveillance System, accessed 10/10/2023

In North Carolina, there are various reportable bacterial sexually transmitted infections (STIs), including gonorrhea, chlamydia, and pelvic inflammatory disease (PID). Chlamydia is the most prevalent STI in Alleghany County, with gonorrhea as the second most prevalent. AppHealthCare provides clinical services, education and awareness efforts and monitors disease trends. To best prevent the spread of STIs, seek free routine testing and treatment if relevant, and take precautions to promote safety. The figures below represent STI cases in Alleghany County by month. (NCEDSS, 2023)

REPORTABLE SEXUALLY TRANSMITTED INFECTION CASES IN ALLEGHANY COUNTY BY TYPE AND MONTH

## REPORTABLE SEXUALLY TRANSMITTED INFECTION CASES IN ALLEGHANY COUNTY BY YEAR

Due to delays in reporting, data in recent months may be incomplete, and data in prior months may change as cases are reported.

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2022 Lyme Disease in Alleghany County and North Carolina

Lyme disease is the most common vector-borne disease in the United States, and is transmitted by deer ticks (blacklegged ticks). While it is normally associated with the North Eastern United States, in the North Carolina High Country we have exceptionally high rates of Lyme disease that are much higher than the rest of our state. (CDC, 2023)

LYME DISEASE INCIDENCE RATE PER 100,000 PEOPLE ACROSS NORTH CAROLINA FOR 2022
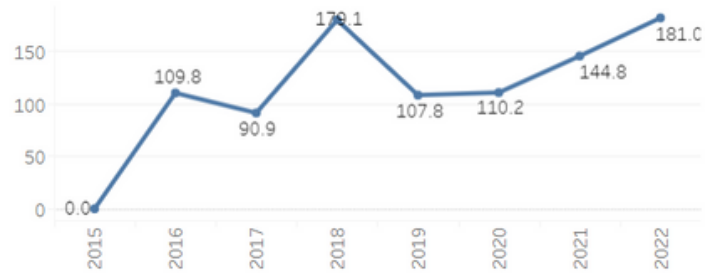

© 2023 Mapbox © OpenStreetMap
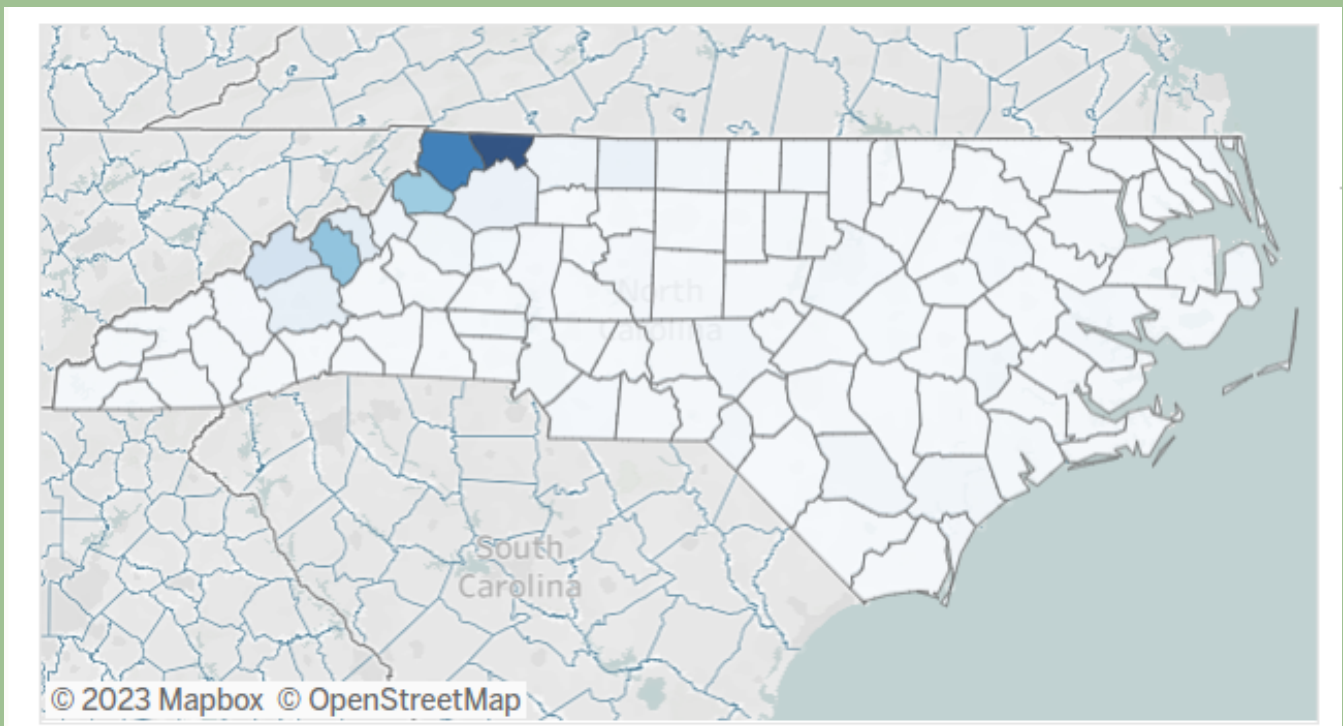
(NCDHHS, 2023)

Lyme Disease Incidence Rate per 100,000 in North Carolina from 2015 - 2022

(NCDHHS, 2023)

Lyme Disease Incidence Rate per 100,000 in County: Alleghany from 2015 - 2022

(NCDHHS, 2023)

In the past 5 years (2018-22), the Lyme disease incidence rate per 100,000 people in NC has ranged from 2.1 to 3.3 cases, where for the same period in Alleghany County, the rate has ranged from 107.8 to 181.0 cases. These numbers measure the new Lyme disease cases in 2022 in comparison to the population in the area, and show that the number of cases of Lyme disease in Alleghany are much higher per person than those for the rest of NC in 2022. (NCDHHS, 2023)

Lyme Disease and Tick Borne Disease in Alleghany County

Alleghany residents had **68.5 times** the risk of getting Lyme disease as compared to the rest of North Carolina in 2022 (95% CI 43.5, 107.8).

The risk of getting Lyme disease in North Carolina in 2022 was **2.8 cases** per 100,000 (95% CI 0.002495, 0.00313), where the risk of getting Lyme disease in Alleghany County in the same timeframe was **178.8 cases** per 100,000 people (95% CI 0.114, 0.2778).

Lyme Disease Symptoms and Outcomes (CDC, 2023)
- Early signs of Lyme disease include: fever, chills, headache, fatigue, muscle and joint aches, swollen lymph nodes, and rash. Bulls-eye rashes only occurs in 70—80% of cases, and can take up to 30 days to appear.
- Untreated Lyme disease can lead to a variety of symptoms including severe headaches and neck stiffness, additional rashes, arthritis with severe joint pain and swelling, particularly in large joints, and facial palsy and heart conditions associated with Lyme carditis.
- Seek help from a doctor if you develop symptoms following a tick bite, or if you have a change in health that aligns with any of the symptoms of Lyme disease.

Prevention (CDC, 2023)
Reducing exposure to ticks can help prevent Lyme disease. Individual prevention measures include:
- Wearing permethrin-treated clothes when spending time outdoors, including when on walks, gardening, and hiking. On average you can apply to clothes once and wash them 5 times before needing to reapply permethrin spray
- Use insect repellents containing DEET or picaridin (see EPA for registered sprays)
- Check skin for ticks daily and shower soon after returning indoors
- Check pets for ticks before they return indoors, even if they are on tick preventatives

Tick and Lyme Disease Organizational Prevention Strategies

Reducing exposure to ticks for employees, clients, and community members can help prevent Lyme disease transmission.

Prevention measures (CDC, 2023)

- Practice tick-safe landscaping where EPA registered and certified pesticides are used to manage and prevent tick populations, or wood chip barriers are used between prime tick habitats such as brush, tall grass, forested areas, and any moist shaded area where ticks thrive. See the CDC's tick landscaping diagram below for tick-safe landscaping practices.
- Provide permethrin, DEET tick repellent, and tick kits to safely remove ticks to employees or clients, and provide education on how to use them and where to find them.
- Implement policies encouraging employees who work outdoors to treat boots and clothes with permethrin. On average you can apply to clothes once and wash them 5 times before needing to reapply permethrin spray.
- For outdoor programming, provide basic tick education to clients, and hold outdoor activities in areas less likely to have ticks present.

  - Ticks are less frequently found in dry, sunny areas.
  - Ticks are less frequently found 10+ feet away from wood chip barriers placed between high grass, brush, and forested areas. If the area does not have a wood chip barrier or has not been treated by tick prevention pesticides, focus activities as far away as possible from forest lines, tall grass, brush, and any moist and shaded area where ticks thrive.

1	**Tick zone**	Avoid areas with forest and brush where deer, rodents, and ticks are common.
2	**Wood chip barrier**	Use a 3 ft. barrier of wood chips or rock to separate the "tick zone" and rock walls from the lawn.
3	**Wood pile**	Keep wood piles on the wood chip barrier, away from the home.
4	**Tick migration zone**	Maintain a 9 ft. barrier of lawn between the wood chips and areas such as patios, gardens, and play sets.
5	**Tick safe zone**	Enjoy daily living activities such as gardening and outdoor play inside this perimeter.
6	**Gardens**	Plant deer resistant crops. If desired, an 8-ft. fence can keep deer out of the yard.
7	**Play sets**	Keep play sets in the "tick safe zone" in sunny areas where ticks have difficulty surviving.

Based on a diagram by K. Stafford, Connecticut Agricultural Experiment Station

(CDC, 2023)

Alleghany County
2022 Communicable Disease Data

Data from The North Carolina Department of Health and Human Services, Division of Public Health's Interactive Disease Data Dashboard (NCD3), accessed 7/7/2023

The figure below shows the proportional disease burden in North Carolina as compared to Alleghany County by disease group, with the disease with the highest proportional disease burden detailed. To hover and view each of the 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, 2023)

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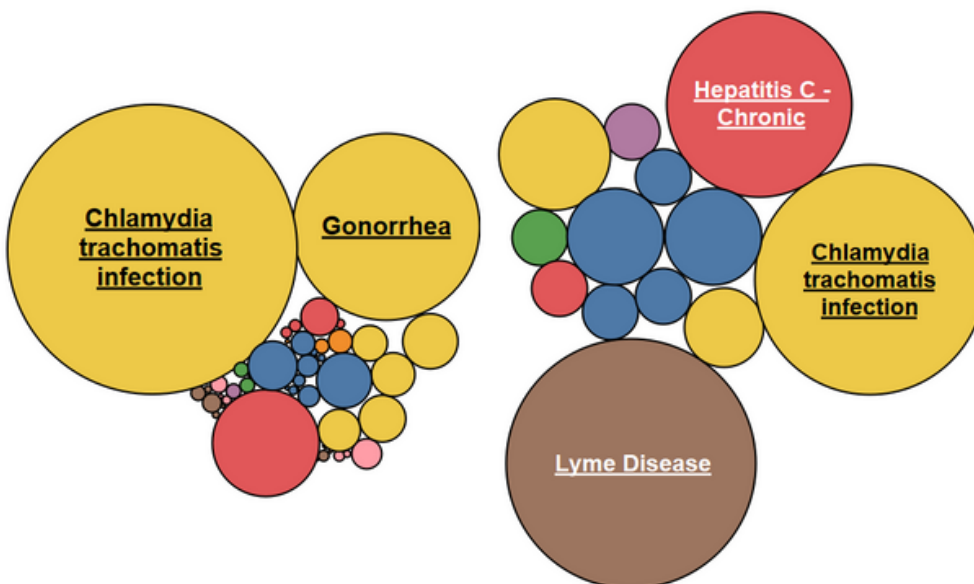
References and Data Notes

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2. Centers for Disease Control and Prevention (2023). Lyme disease. https://www.cdc.gov/lyme/
3. Centers for Disease Control and Prevention (2023). Lyme disease prevention in the yard and garden [Infographic]. https://www.cdc.gov/lyme/prev/in_the_yard.html
4. North Carolina Department of Health and Human Services (2023). COVID-19 data dashboard. https://covid19.ncdhhs.gov/dashboard
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7. North Carolina Division of Public Health, Communicable Disease Branch (2023). Lyme Disease Surveillance Summary from 2017—2022. https://epi.dph.ncdhhs.gov/cd/lyme/LymeSurveillanceSummary2022.pdf
8. North Carolina Electronic Disease Surveillance System (2023). North Carolina Division of Public Health, North Carolina Department of Health and Human Services.

Data Notes

Cases reflected in Alleghany County data are categorized by the reporting county, and have been updated to include both confirmed and probable cases. 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. 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 initial report to public health. 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.