



2023 Durham County Communicable Disease Report

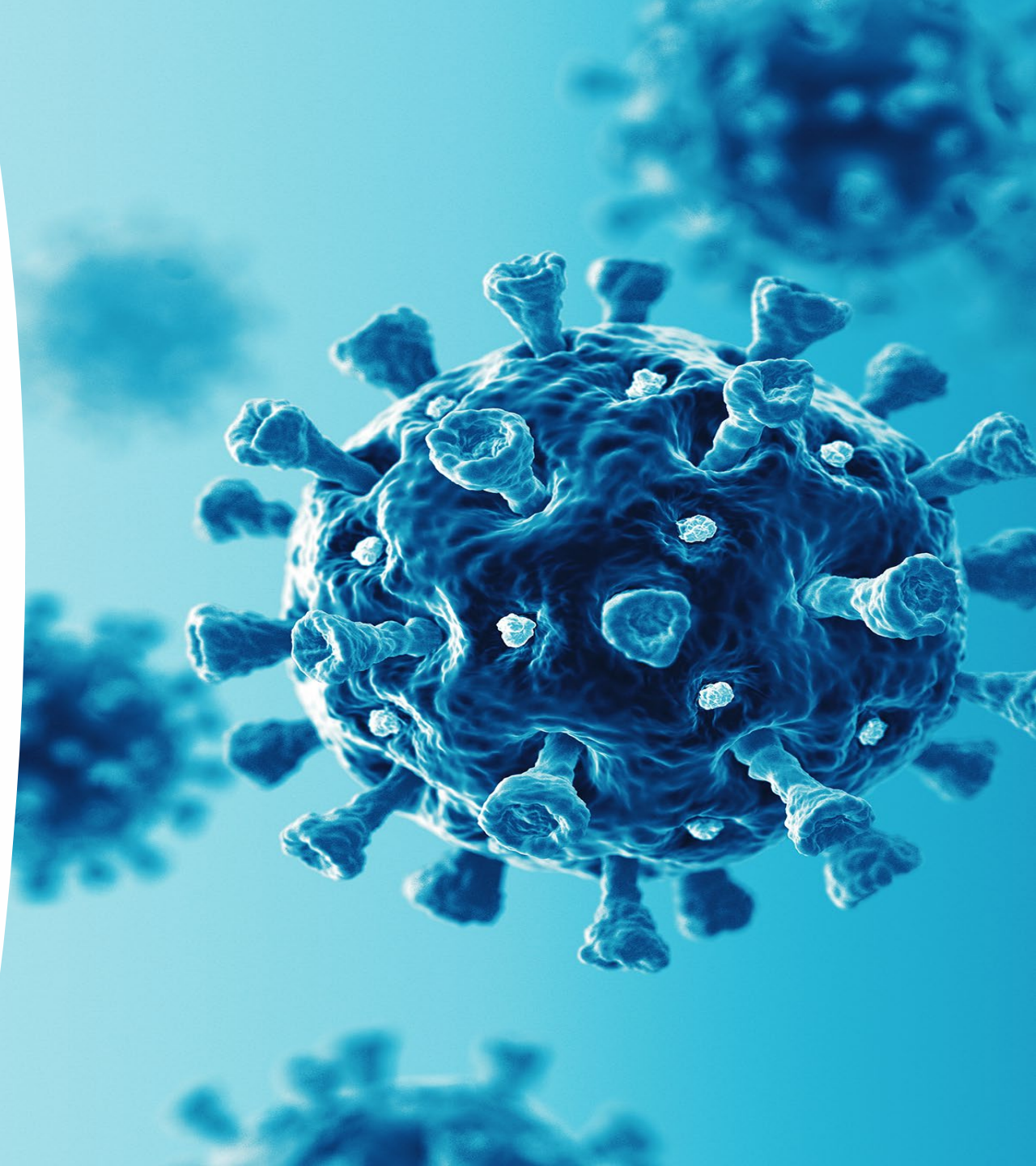
Jeff Jenks MD, MPH

November 9, 2023

Durham County Board of Health

Introduction

- Sexually Transmitted Infections
 - Chlamydia
 - Gonorrhea
 - Syphilis
- Bloodborne
 - Hepatitis C
 - HIV
- Foodborne
 - Campylobacter
 - Salmonellosis
 - Shigellosis
- Respiratory
 - Tuberculosis
- Vaccine Preventable Disease
 - Hepatitis B
 - Mpox
- Invasive Group A Strep



About the data

- Data pulled from NC EDSS on October 16, 2023.
- When possible, predictions for the final few months of the year are included. These are estimates and are subject to change as more data becomes available.
- Data in this report may differ from the State's data due to differences in date/time the data was pulled and data cleaning processes.
- Data in NC EDSS is limited by data entry and processes and self-reporting bias.
- Data was suppressed for situations where the sample was <10 .



Racial Inequities

- Social determinants of health play an important role in health outcomes.
- Research shows that STIs are more prevalent among people of color than whites. This can be explained by a number of factors, including systemic racism, healthcare access, and sexual networks.
- People of color are often understandably hesitant to reach out for care due to previous or anticipated discrimination by the healthcare system, medical mistrust, and lack of health insurance or coverage.



Racial Inequities

- Looked at 48 SDOH variables and STI rates in 2020
 - 24 were associated with STI incidence
- Factors associated with lower-than-expected STI incidence at census tract level
 - Having health insurance, particularly employer health insurance
- Factors associated with higher-than-expected STI incidence at census tract level
 - Medicaid insurance only
 - No Health insurance
 - Using public transportation
 - Income below the poverty level
- Importantly, race was not associated with higher-than-expected STI incidence at the census tract level except in historically-marginalized neighborhoods in Durham



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Open Forum Infectious Diseases

Volume 10, Issue 7
July 2023

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JOURNAL ARTICLE EDITOR'S CHOICE

Relationship Between Sexually Transmitted Infections and Social Determinants of Health in Durham County, North Carolina, United States

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Author Notes

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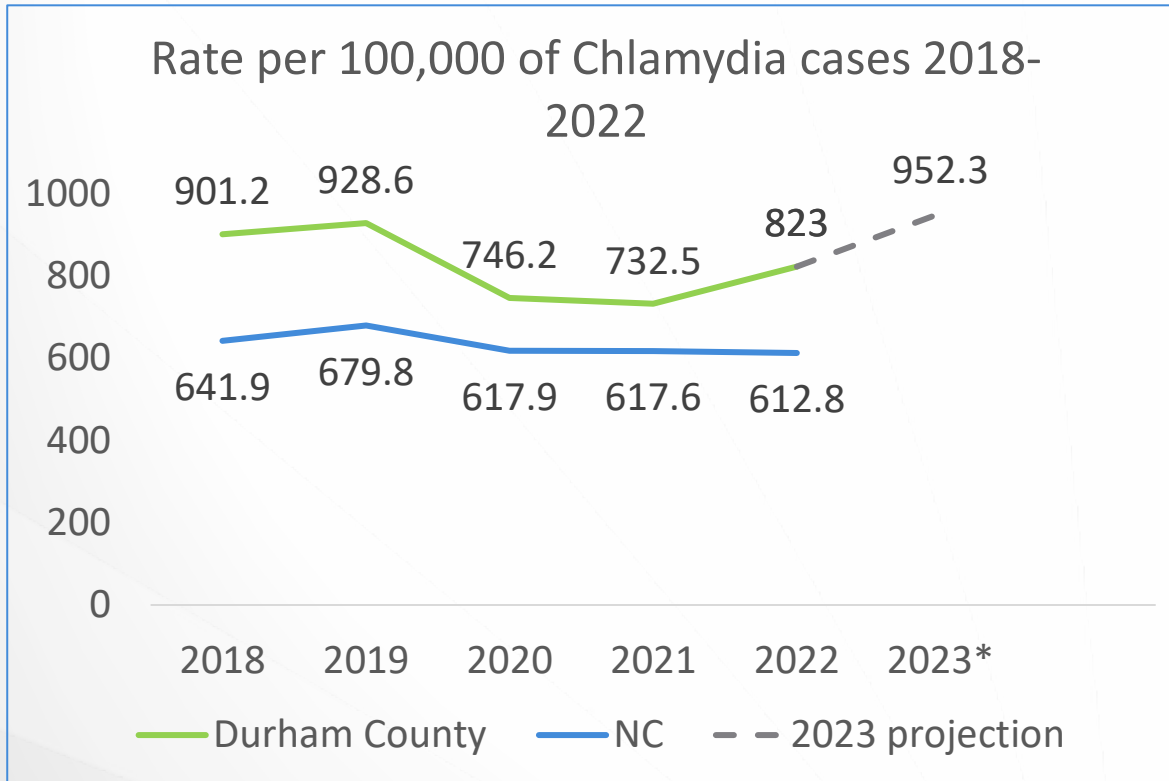
Abstract

Background

Sexually transmitted infections (STIs) are increasing in the United States, and certain populations are more at risk than others. One explanation for this is inequities in underlying social determinants of health (SDOH).

Article available here: <https://academic.oup.com/ofid/article/10/7/ofad368/7223660>

Chlamydia

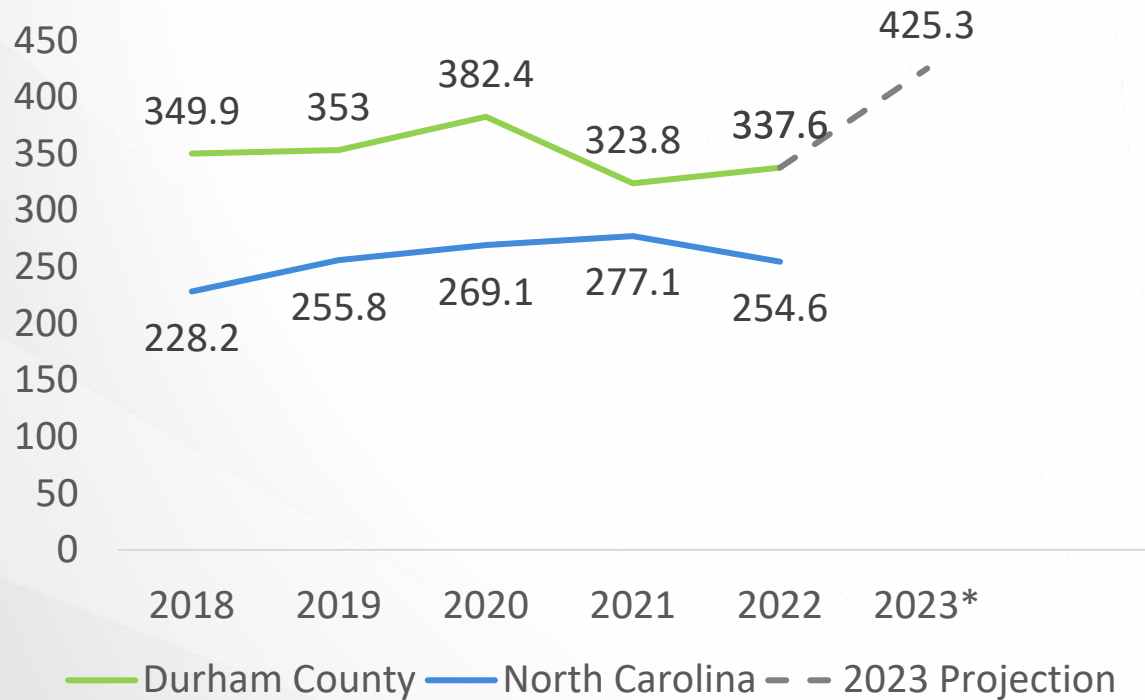


*Incomplete data

- In the past 5 years, Black or African Americans have made up over 50% of cases.
- Females are more likely to be diagnosed than males.
- The vast majority of cases are among 18 to 29-year-olds.

Gonorrhea

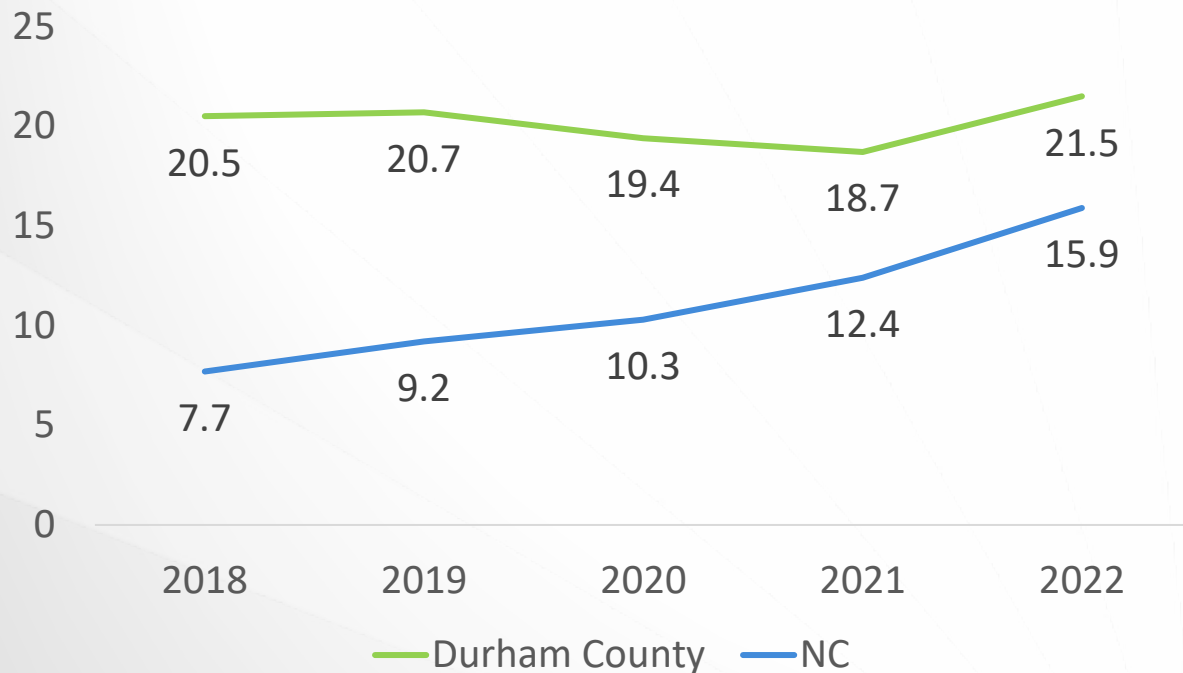
Rate per 100,000 of Gonorrhea cases 2018-2023*



- Black or African Americans make up over two-thirds of cases in the past 5 years.
- The majority of cases are among 18 to 29-year-olds followed by 30 to 39-year-olds.
- Males are more often diagnosed than females.

Syphilis

Rate per 100,000 of Durham County Early Syphilis* 2018-2023

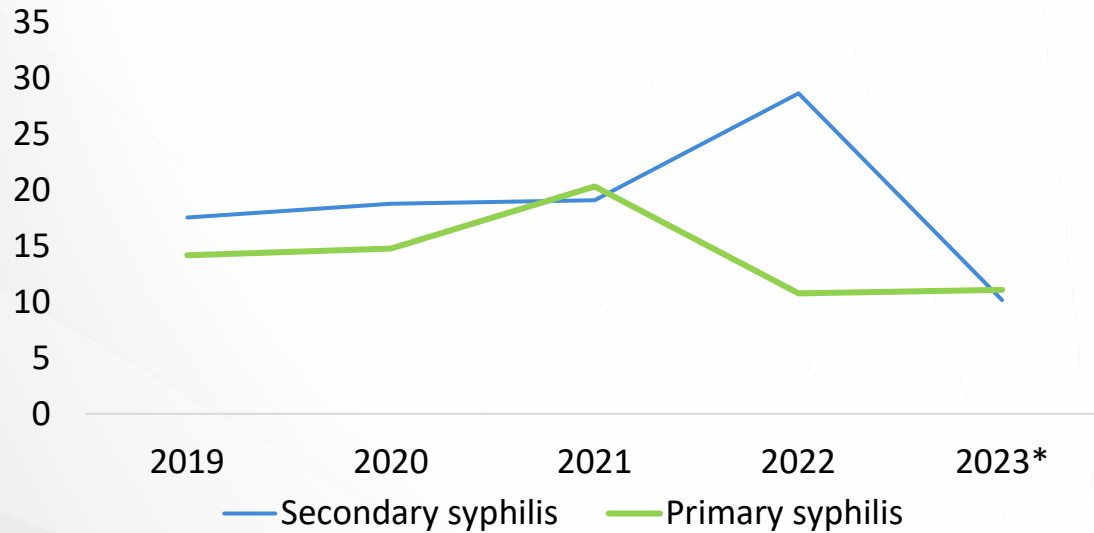


*Early syphilis includes primary, secondary, and nonprimary or non-secondary syphilis (formally early latent).

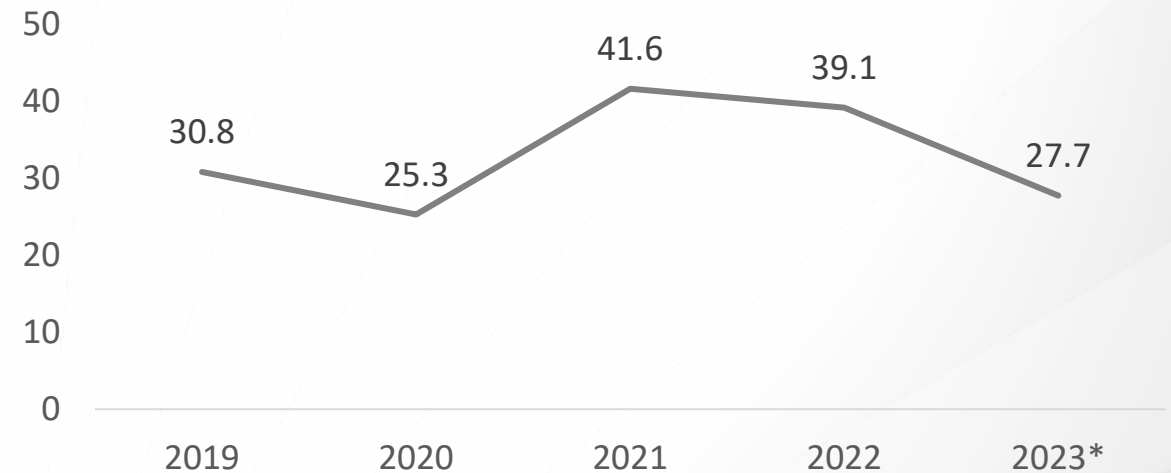
- Black or African Americans make up over two-thirds of early syphilis cases in the past 5 years.
- The majority of cases are between 18 to 39 years old.
- Males are more likely to be diagnosed than females.

Syphilis

Rate per 100,000 of Durham County Primary and Secondary Syphilis Cases



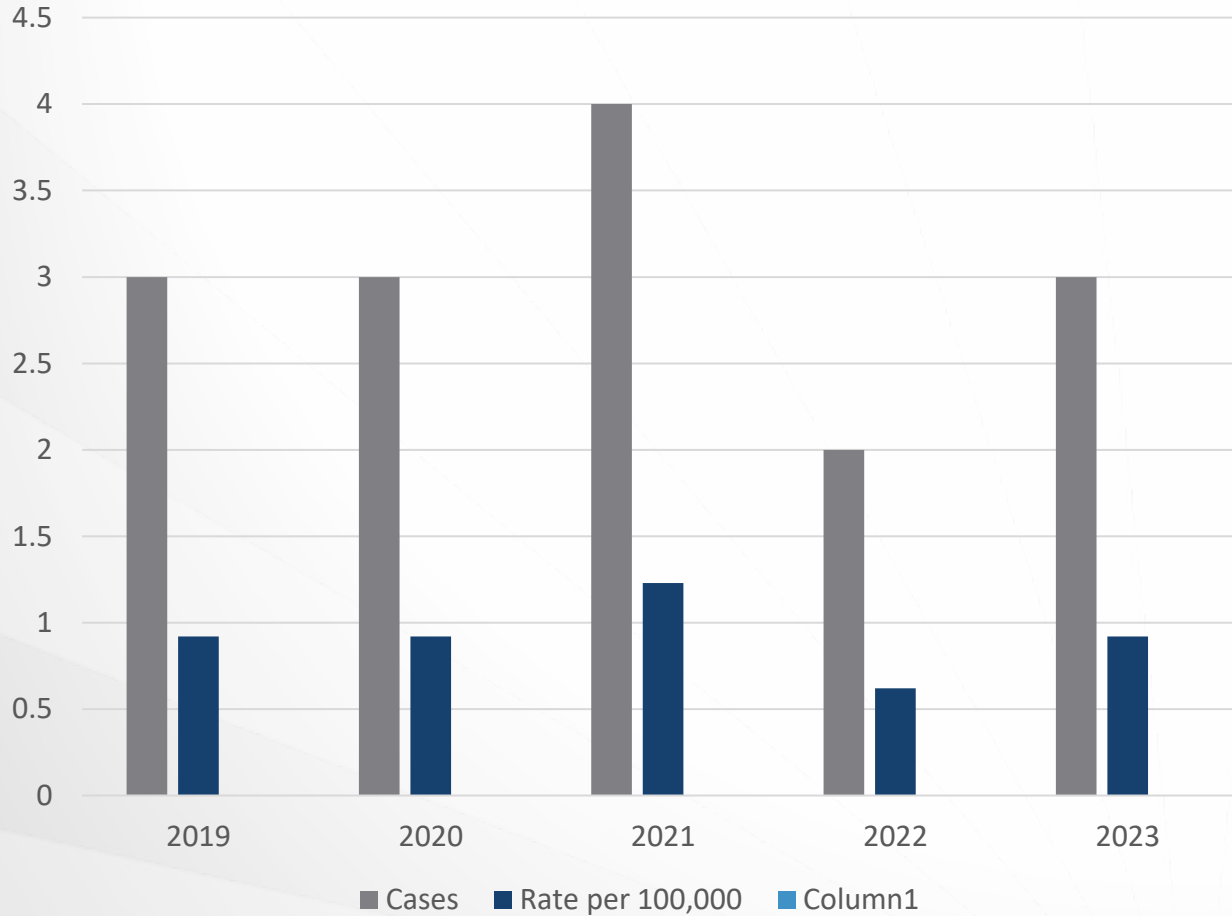
Rate per 100,000 of Durham County Syphilis Cases of Unknown Duration or Latent 2019-2023



Congenital syphilis rates remain unchanged with <1 case per 100,000

Syphilis

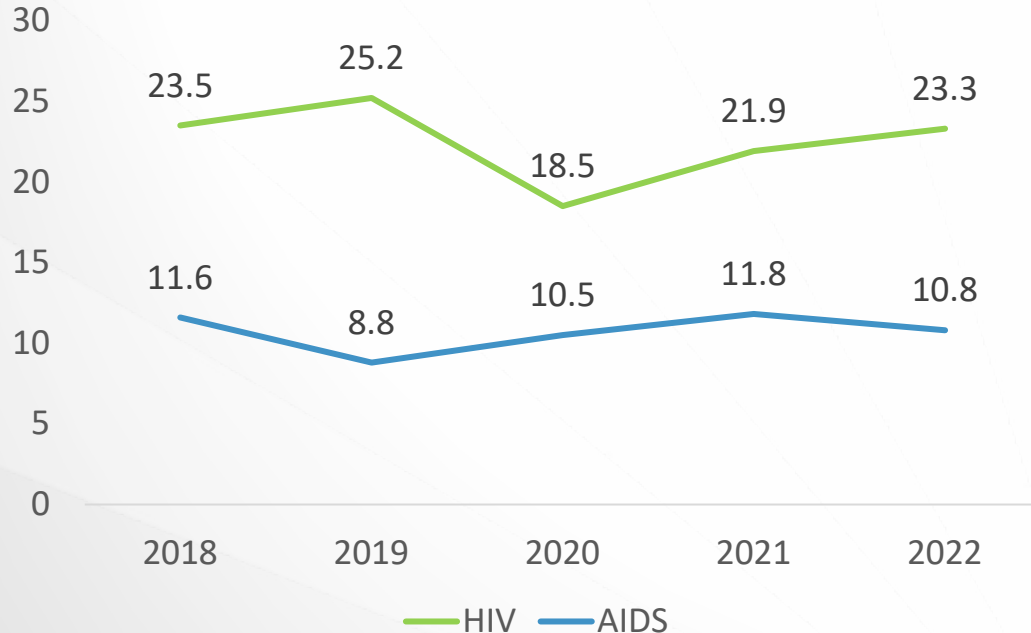
Congenital Syphilis



- Congenital syphilis rates remain unchanged with <math><1</math> case per 100,000

HIV

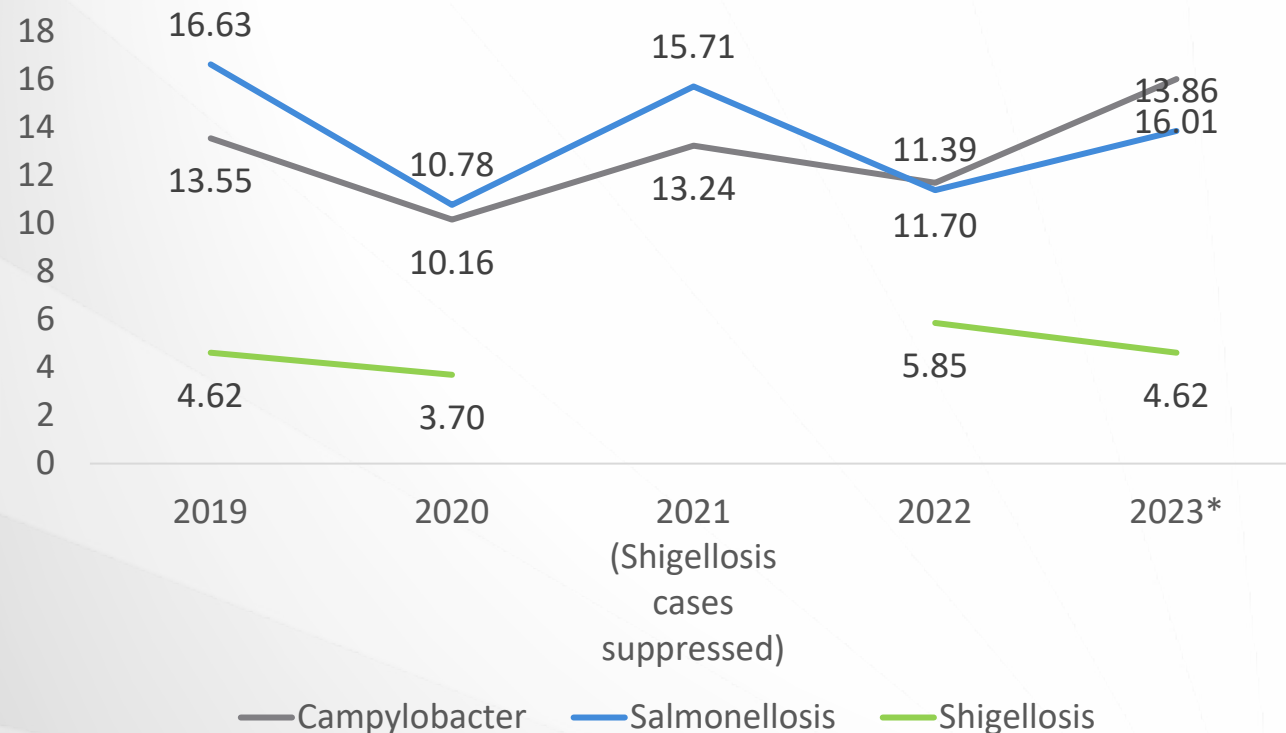
Rate per 100,000 of newly diagnosed Durham County HIV or AIDS Cases 2018-2022



- HIV cases are on the rise since 2020.
- AIDS cases are stable since 2018.
- The NC DHHS HIV/STD annual reports can be found here: <https://epi.dph.ncdhhs.gov/cd/s/tds/annualrpts.html>

Foodborne

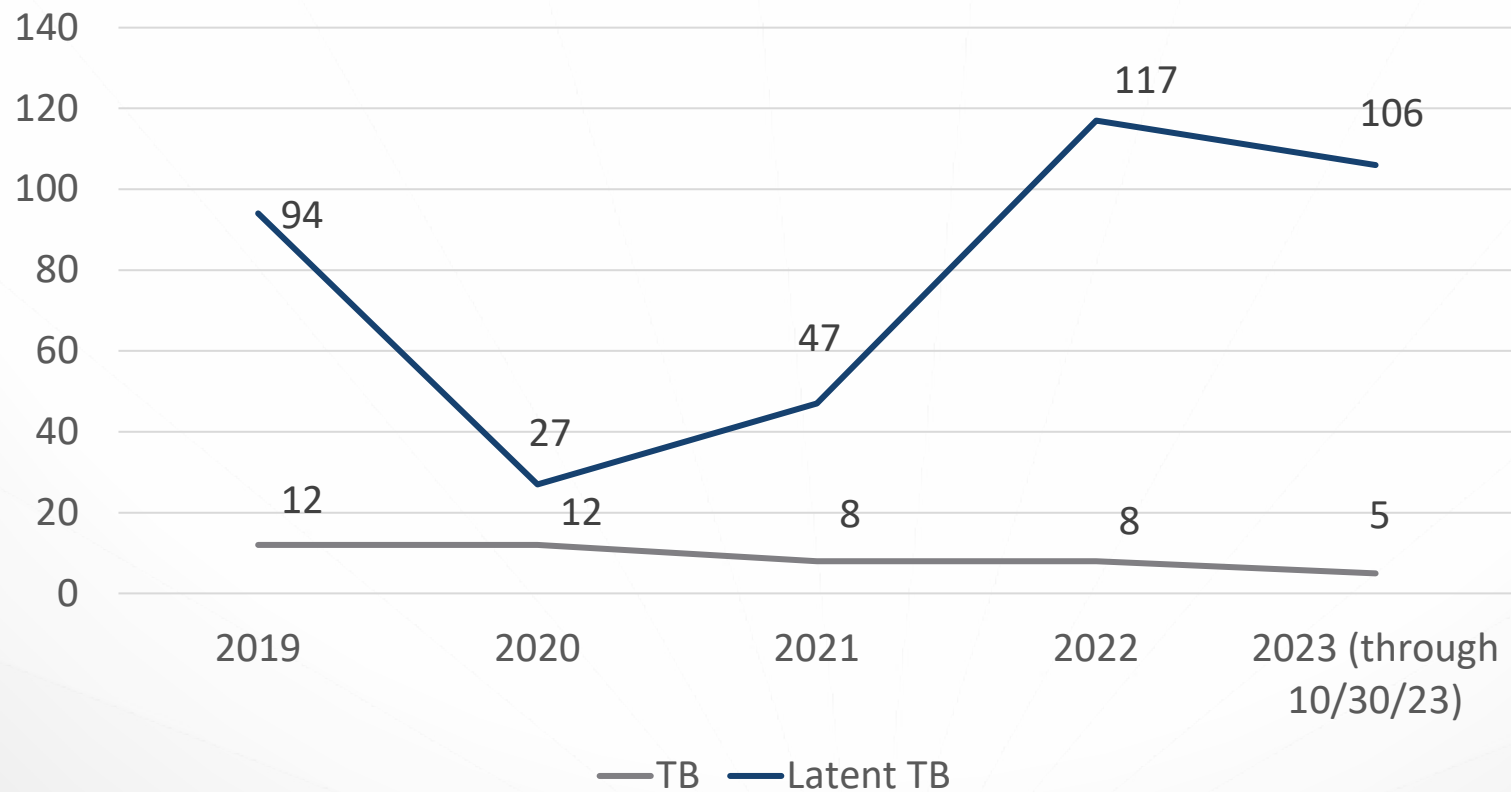
Rate per 100,000 of Durham County Foodborne Illness
2019-2023



- Examining data from the past 5 years, foodborne illness tends to spike in June, peak in July/August, and decline by October.
- Foodborne illness peaked in August 2023 in the past 5 years.
- In 2020, Foodborne illness was much less common during the summer than other years.
- Reported Foodborne illness vastly undercount the number of true cases as most persons don't get an official diagnosis with pathogen identification.

Tuberculosis

Rate per 100,000 of Active and *Latent Tuberculosis cases,
2019 - 2023

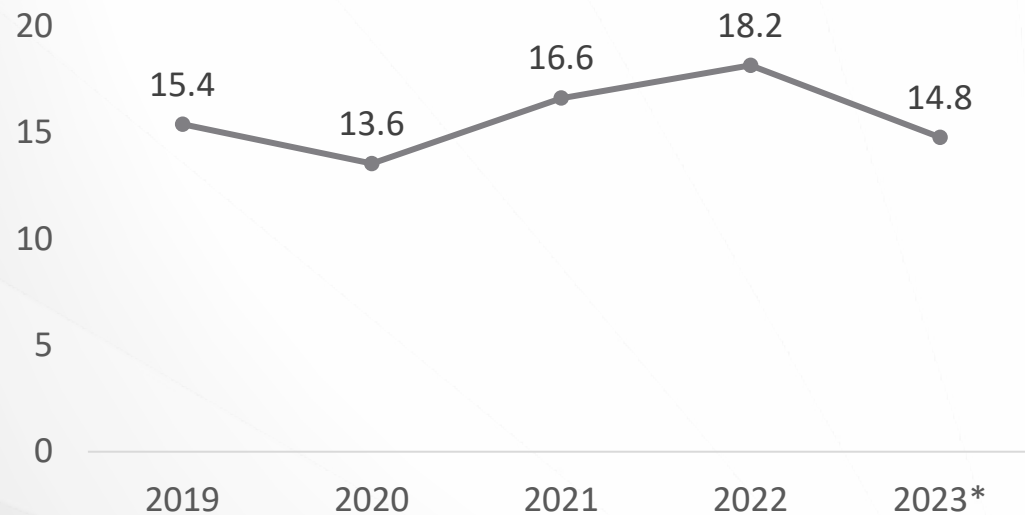


*Data only includes DCoDPH



Hepatitis B

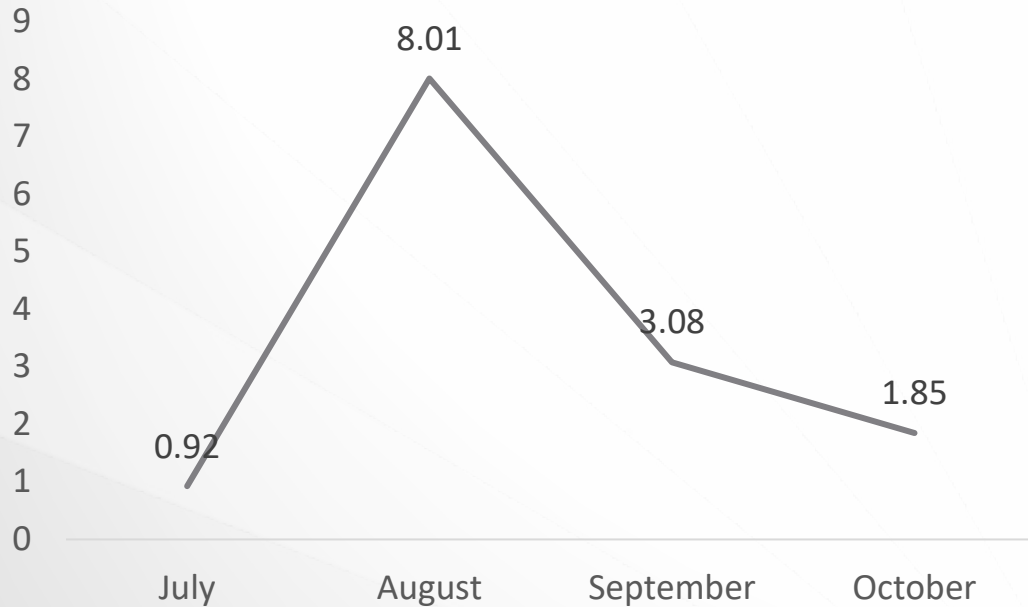
Rate per 100,000 of Hepatitis B Cases 2019-2023



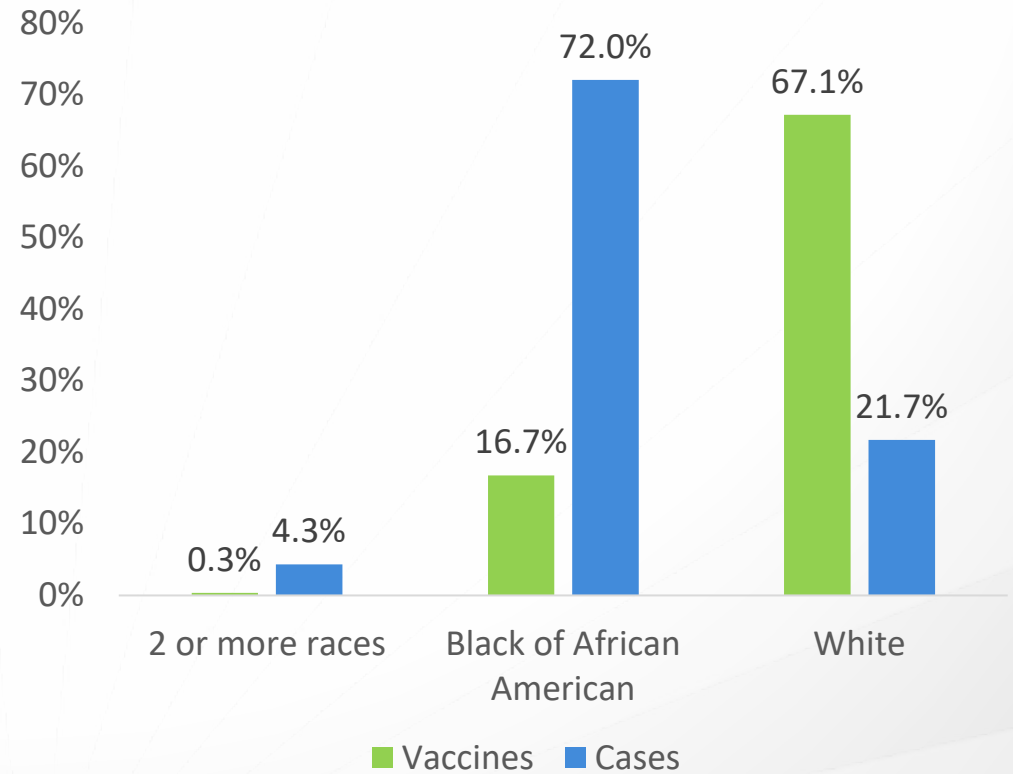
- Most cases are among Asians and Black or African Americans.
- Males are more likely to be diagnosed with Hepatitis B than females.

Mpox

Rate per 100,000 of mpox cases in Durham County 2022 (n=46)



2022 mpox cases and vaccine administration



DCoDPH published article on mpox



DCoDPH published an article the *Journal of Racial and Ethnic Health Disparities* about mpox and social vulnerability.

- DCoDPH wanted to see if they reached the target populations for the mpox vaccine.
- Predictive modeling used to validate.
- A number of factors reflecting social vulnerability were positively associated with receiving the mpox vaccine.
- DCoDPH did a good job equitably making the vaccine available

Article available here: [Mpox Vaccination and the Role of Social Vulnerability in Durham County, North Carolina, USA](#)
[| SpringerLink](#)

Published: 13 October 2023

Mpox Vaccination and the Role of Social Vulnerability in Durham County, North Carolina, USA

[Savannah Carrico](#) , [John-Paul Zitta](#), [Elizabeth Stevens](#), [Rodney Jenkins](#), [Marissa Mortiboy](#) & [Jeffrey D. Jenks](#) 

Journal of Racial and Ethnic Health Disparities (2023) | [Cite this article](#)

27 Accesses | 6 Altmetric | [Metrics](#)

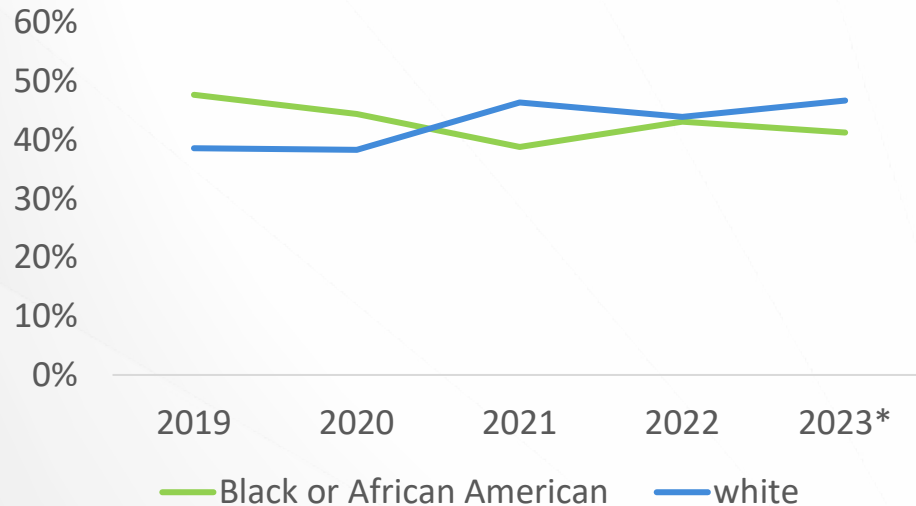
Bloodborne

Recommendation Summary

Population	Recommendation	Grade
Adults aged 18 to 79 years	The USPSTF recommends screening for hepatitis C virus (HCV) infection in adults aged 18 to 79 years.	B

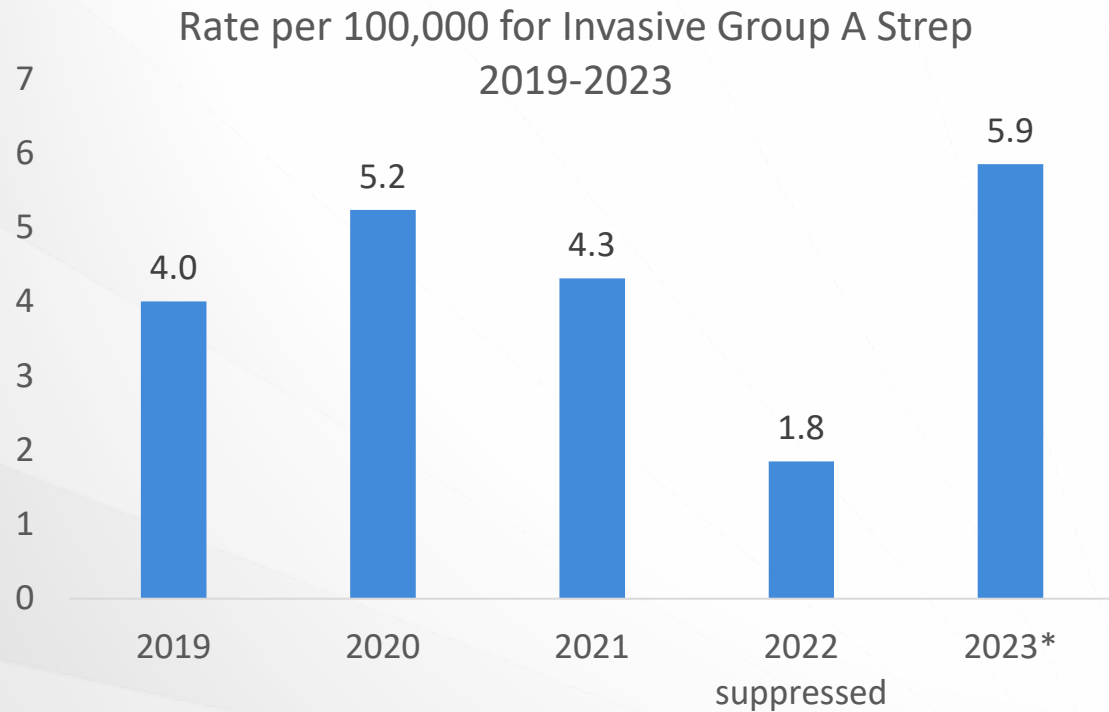
Hepatitis C

Race breakdown of Durham County
Hepatitis C cases 2019-2023



- Hepatitis C cases are more common among 60 to 69-year-olds.
- Males are more likely to be diagnosed with Hepatitis C.
- Hepatitis C cases are similar between Black or African Americans and whites.
- We are linking persons with acute and chronic HCV to Region 6 HCV Bridge Counselor

Invasive Group A Strep



- An increase in cases of iGAS are often associated with an increase in circulating respiratory viruses



COVID-19

- ✓ More challenging to determine COVID-19 levels in the community
 - ✓ Less data being collected and reported by CDC
 - ✓ Less PCR testing being done
 - ✓ Rely more on COVID-19 hospitalizations and indirect metrics such as wastewater data

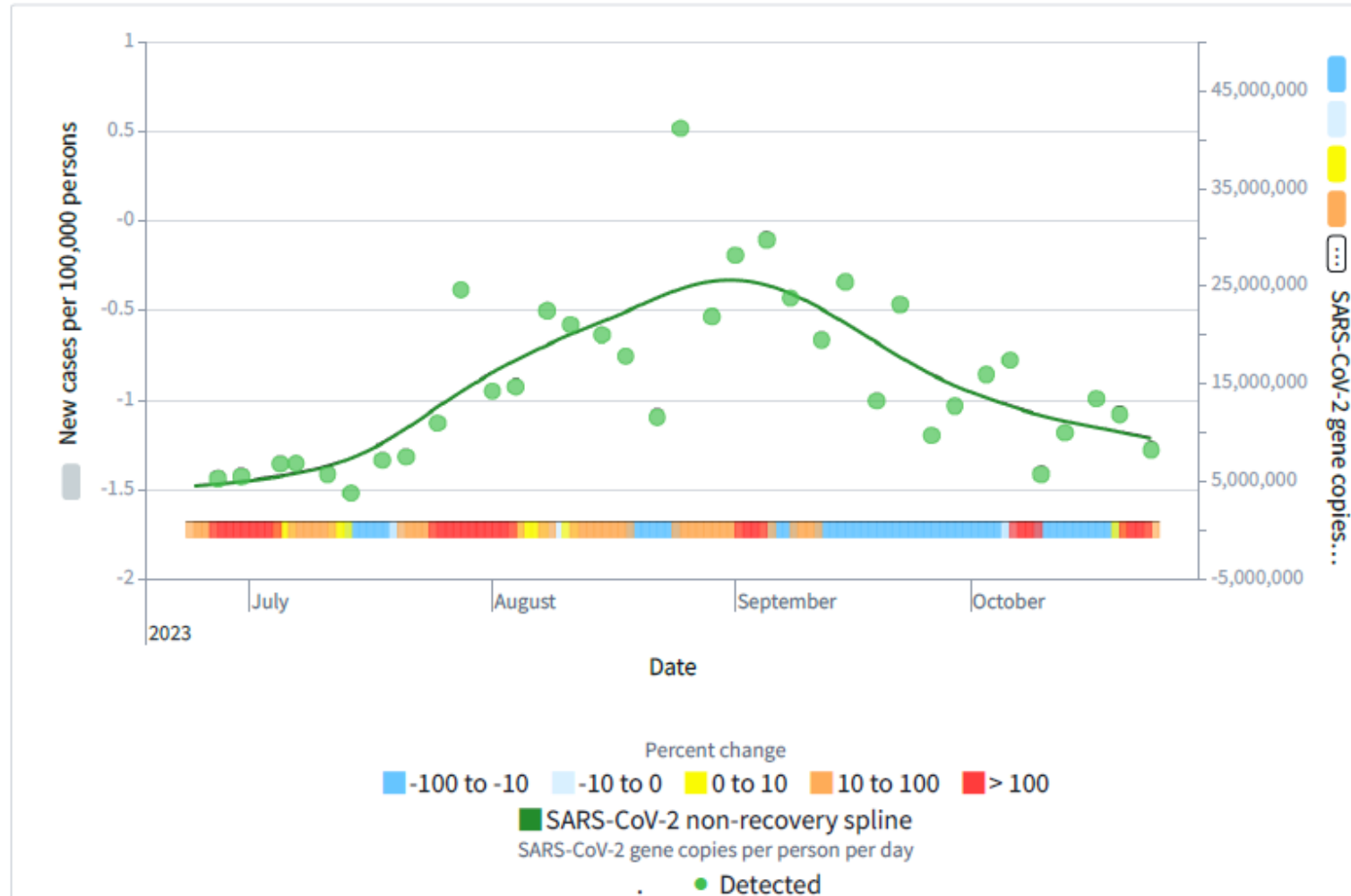
COVID-19 Hospitalizations*

- ✓ 38 new admissions in the previous 7 days
- ✓ 7.8 new admissions per 100,000 population
 - ✓ 14% decrease from the previous two weeks
- ✓ Overall hospitalization level **low**
($<10/100,000$)

*Through 10/21/2023

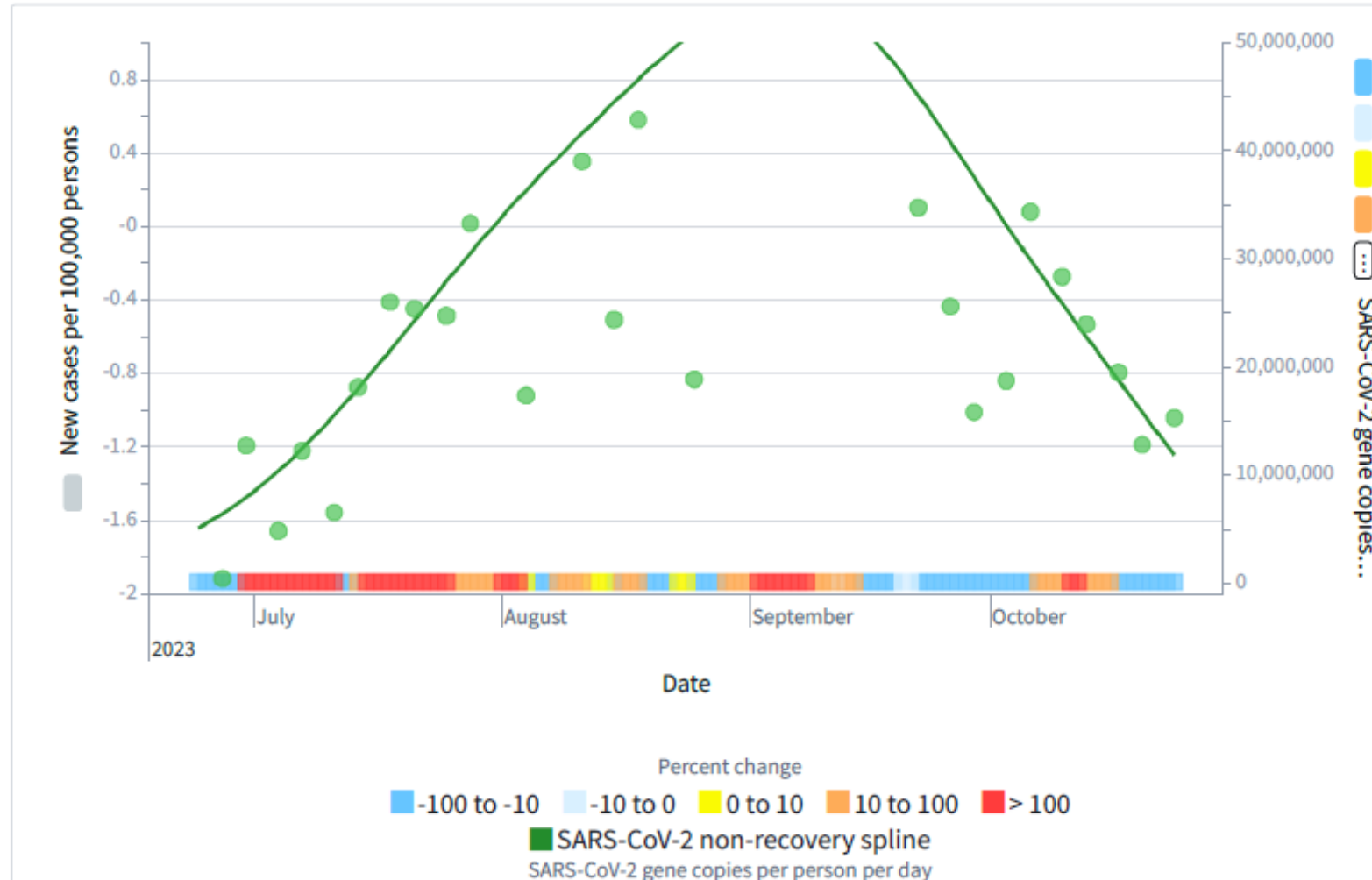
COVID-19 Wastewater

NORTH DURHAM - COVID-19 Virus in Wastewater and Reported Cases in the Sewershed



COVID-19 Wastewater

SOUTH DURHAM - COVID-19 Virus in Wastewater and Reported Cases in the Sewershed



COVID-19

- Case numbers no longer reportable.
- Relying on other metrics such as hospitalization numbers and wastewater
- NEW bivalent boosters are available this Fall.
 - DCoDPH offers Pfizer and Moderna boosters for both uninsured and privately insured people.
- DCoDPH published an article on vaccine equity available here:
<https://link.springer.com/article/10.1007/s40615-023-01546-0>

Select a Location (all fields required)

North Carolina Durham County

[< Start Over](#)

Low

In Durham County, North Carolina, the COVID-19 hospital admission level is **Low**.

- [Stay up to date](#) with COVID-19 vaccines.
- Maintain [ventilation improvements](#).
- Avoid contact with people who have suspected or confirmed COVID-19.
- Follow recommendations for [isolation](#) if you have suspected or confirmed COVID-19.
- Follow the recommendations for [what to do if you are exposed](#) to someone with COVID-19.
- If you are at [high risk of getting very sick](#), talk with a healthcare provider about additional prevention actions.



Key highlights

- Chlamydia, gonorrhea, and syphilis rates are all increasing in Durham County
- We are vigilant against Mpox but have not seen a case since November 2022
- HIV cases are rising slightly as we come out of the COVID-19 pandemic
- Foodborne illness peak in the summer months and are stable
- Decline in circulating SARS-CoV-2 over the past 2 months based on wastewater and hospitalization data



Acknowledgements

- Savannah Carrico, MPH – Epidemiologist
- Communicable Disease Team
 - Kiki Rayner – Director of Nursing
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 - Cathi Hines and Kathleen Robertson – CD Nurses
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 - Kathy Carpenter, Amy Rafalow, and Nisha Crosby – TB Nurses
 - Sherrie Miller – Sexual Health Clinic Supervisor
 - Bonitta McNight-Brown, Kim Mazurak, and Cedar Eagle – DIS/HIV Navigator
 - Emily Ryan, Candy Stancil, Kim Harris – Sexual Health Clinic Providers
 - Shamiah Carlton, Tammie Allen-Pulley, Tracy Blowe – Sexual Health Clinic Nurses



Questions?



Thank You!



Live. Grow. *Thrive.*