



# **Communicable Disease, HIV and STI Update**

Presented to the Mecklenburg County BOCC

Sept 10, 2024

# Monthly CD Statistics: What is Included in the Report?

**Mecklenburg County Public Health Reportable Communicable Diseases**  
 Reported to NC Department of Health and Human Services  
 Reflects report dates, not always onset dates  
 Monthly Report: JUNE 2024  
 Preliminary Figures

HIV/AIDS & Syphilis case reports are available on a Quarterly Basis.

DISEASES	January	February	March	April	May	June	July	August	September	October	November	December	2024 Total Cases (Year to Date)	JUNE 3 year Average (Year to Date)	Year-to-Date (1 Year Annual)
<b>Sexually Transmitted and Bloodborne</b>															
AIDS** <sup>1</sup> (Quarterly Reports)	Jan - Mar = 40			April - June = 30									70	-	64
Chancroid**	0	0	0	0	0	0							0	0	0
Chlamydia (Laboratory confirmed) <sup>3</sup>	979	857	775	773	857	715							4956	837	5029
Gonorrhea <sup>3</sup>	389	340	309	336	303	306							1983	400	2285
Granuloma Inguinale**	0	0	0	0	0	0							0	0	0
Hep. Type B, Acute**	1	0	1	0	1	0							3	1	4
Hep. Type B, Carrier	11	12	14	10	15	11							73	16	65
Perinatal Hepatitis B**	0	0	0	0	0	0							0	0	1
Hep. Type C, Acute	0	0	0	0	0	0							0	0	1
HIV Disease** <sup>1</sup> (Quarterly Reports)	Jan - Mar = 73			April - June = 75									154	-	146
Lymphogranuloma Venereum	0	0	0	0	0	0							0	0	0
Nongonococcal Urethritis (NGU)	2	9	14	21	7	8							61	19	166
Ophthalmia Neonatorum	0	0	0	0	0	0							0	0	0
Pelvic Inflammatory Disease (PID)	1	1	2	0	1	0							5	1	10
Syphilis** <sup>1</sup> (Quarterly Reports)	Jan - Mar = 208			April - June = 204									412	-	377
Congenital Syphilis** <sup>1</sup>	Jan - Mar = 2			Apr - June = 6									8	-	2
<b>Enteric, Food and Waterborne</b>															
Botulism*	0	0	0	0	0	0							0	0	0
Infant Botulism	0	0	0	0	0	0							0	0	0
Campylobacter Infection**	6	3	10	25	18	31							93	15	58
Cholera**	0	0	0	0	0	0							0	0	0
Cryptosporidiosis**	4	1	1	1	1	4							12	2	9
Cyclosporiasis**	0	0	0	0	1	1							2	4	4
C. perfringens**	1	0	0	0	1	1							3	1	3
E. coli, Shiga toxin-producing**	6	3	10	4	5	9							37	3	19
Hepatitis A**	0	0	2	0	0	1							3	2	7
Hemolytic-Uremic Syndrome**	0	0	0	0	0	0							0	0	0
Legionellosis	1	0	0	0	0	2							3	3	5
Listeriosis**	0	0	0	0	0	1							1	1	1
Salmonellosis**	15	8	7	23	21	16							90	16	56
Shigellosis**	2	4	6	4	3	5							24	3	19
Staphylococcal (food poisoning)**	0	0	0	0	0	0							0	0	0
Trichinosis	0	0	0	0	0	0							0	0	0
Typhoid, Acute**	0	0	0	0	0	0							0	0	0
Typhoid, Carrier**	0	0	0	0	0	0							0	0	0
Paratyphoid Fever	0	0	0	0	0	0							0	0	0
Vibrio Vulnificus	0	0	0	0	0	0							0	0	0
Vibrio Infection (other than cholera)**	0	0	0	3	1	2							6	2	2
Other or Unknown Foodborne**	0	0	0	0	0	0							0	0	0
<b>Vaccine Preventable</b>															
Diphtheria**	0	0	0	0	0	0							0	0	0
Hemophilus influenzae, invasive disease**	3	3	1	1	2	0							10	1	4
Measles (Rubella), Total**	0	0	0	0	0	0							0	0	0
Measles, Indigenous	0	0	0	0	0	0							0	0	0
Measles, Imported	0	0	0	0	0	0							0	0	0
Mumps	0	0	2	0	0	0							2	0	0
Pertussis (whooping cough)**	0	0	1	4	9	5							19	0	1
Polio, paralytic**	0	0	0	0	0	0							0	0	0
Rubella**	0	0	0	0	0	0							0	0	0
Rubella, Congenital Syndrome	0	0	0	0	0	0							0	0	0
Tetanus	0	0	0	0	0	0							0	0	0
Varicella	3	2	2	0	5	3							15	1	6

- Counts of reportable diseases  
[N.C. Administrative Code rule \(10A NCAC 41A .0101\)](#)
- Monthly, Year-to Date and 3 yr. average totals
- Organized by Disease Categories  
[based on primary means of transmission](#)
- Tracking of Bioterrorism Agents  
[Tracking of 6 agents that pose a risk to national security.](#)

Diseases are organized into  
**6 Major Categories**  
based on primary means of  
transmission

1. Sexually Transmitted Infections and Bloodborne Pathogens
2. Enteric, Foodborne and Waterborne
3. Vaccine Preventable
4. Direct Contact and Respiratory
5. Vector borne and Zoonotic
6. Encephalitis, Meningitis and Prion Diseases



# Monthly CD Statistics: Category A Biological Agents

As a part of Emergency Preparedness/Response, the CD monthly report tracks

## **6 Biological Agents**

that may pose a threat to national security

1. Anthrax
2. Botulism
3. Viral Hemorrhagic Fever
4. Plague
5. Smallpox
6. Tularemia



Many diseases are reportable;

***only a few conditions*** are responsible for most reports.

## Enteric, Foodborne and Waterborne

- Campylobacter
- Salmonella
- E. Coli

## Sexually Transmitted Infections and Bloodborne Pathogens

- Chlamydia
- Gonorrhea
- HIV
- Syphilis



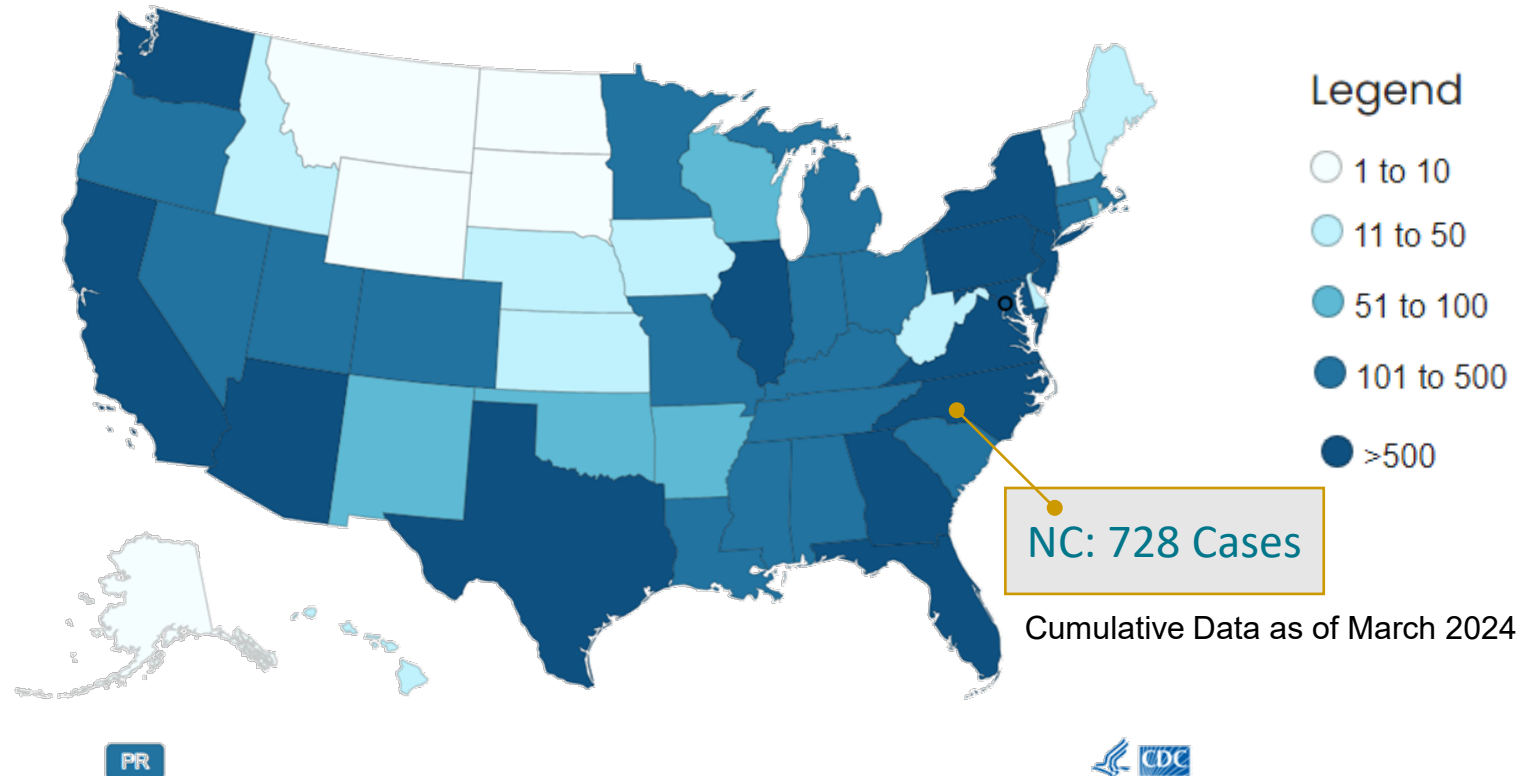
# Emerging Diseases

## 2022 Clade II Mpox Global Outbreak: United States

- US Mpox cases peaked in August 2022: > 30,000 cases reported in first year
- In the US, mpox infection is mostly spread through sexual or intimate contact
- Currently, Clade II mpox still circulating but at lower levels

U.S. Cases
Total Cases
<b>32,063</b>

U.S. Deaths
Total Deaths
<b>58</b>



Between January – July 2024,

**41 cases of Mpox were reported**

in Mecklenburg County



# Emerging Diseases

## Mpox Outbreak: Mecklenburg County, NC

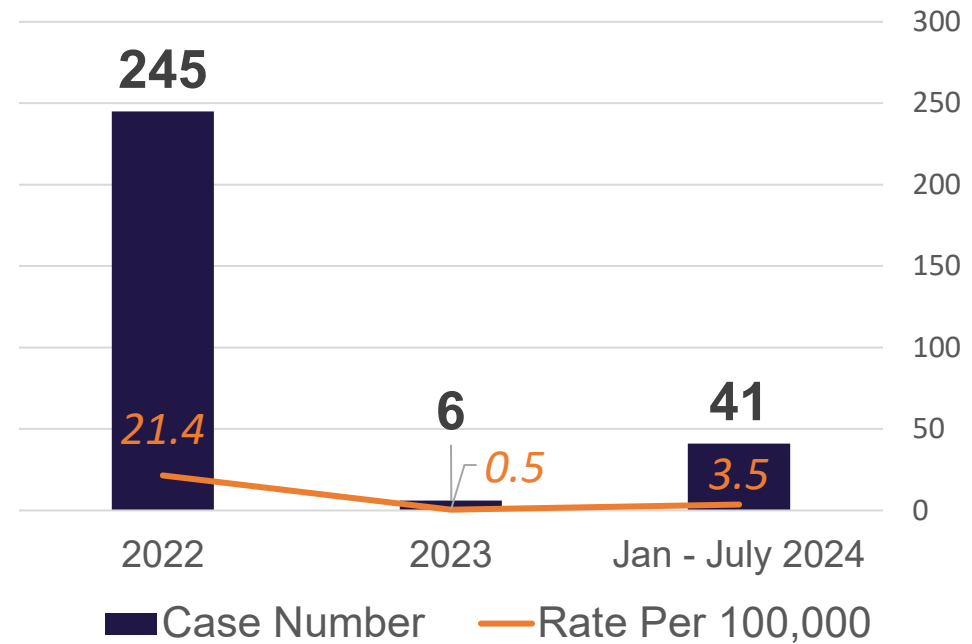
### North Carolina

- The first case of Mpox was reported in NC in June 2022.
- Since then, 789 cases have been reported (as of August 2024).

### Mecklenburg County

- As of July 2024, Mecklenburg has reported 293 Mpox cases, the majority of which (84%) occurred during 2022.
- Case reports dropped dramatically in 2023, before resurging in 2024.

2022 - 2024 Mpox Cases and Rates, Mecklenburg  
Rate per 100,000



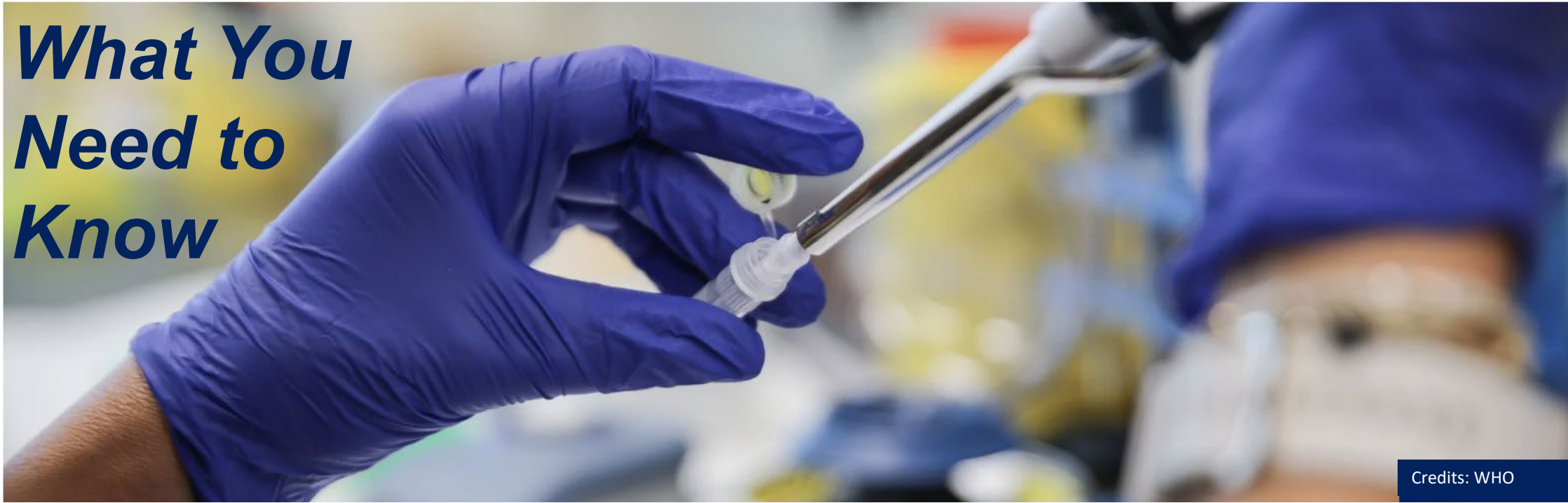
Sources:

NC EDSS, Mecklenburg County Communicable Disease Reports  
US Census Bureau, Mecklenburg County Population Estimates



# Emerging Diseases: 2024 Mpox (Clade I) Outbreak

## *What You Need to Know*



- **Aug 14, 2024:** WHO declares Mpox outbreak a Public Health Emergency of International Concern
- Declaration due to widespread outbreak of Mpox (Clade I) cases and deaths in parts of Africa
- Current Risk to the U.S. is considered **LOW**



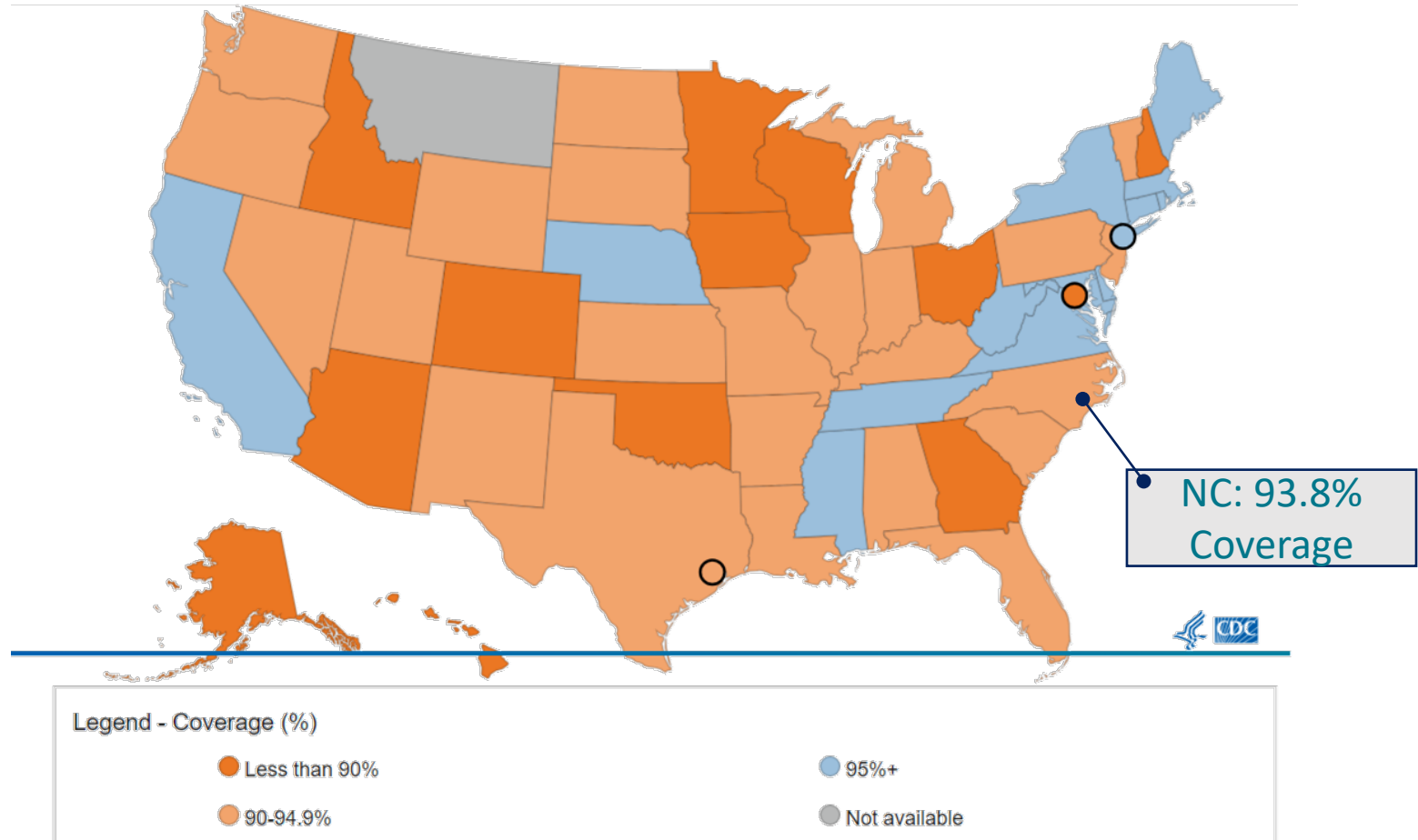


# CD Reporting: Re-Emerging Issues

## Vaccine Preventable Diseases (VPD)

- Vaccines are a safe and effective way to prevent diseases, and yet vaccination coverage has declined
- Recent outbreaks of Measles and Mumps in the U.S. underscore the need to maintain high vaccination rates
- The MMR vaccine require high levels of vaccination coverage (> 95%) to protect the public.

MMR Vaccine Coverage for Kindergarteners by School Year (2009–2023)



# CD Reporting: Re-Emerging Issues

## Vaccine Preventable Diseases (VPD)

- In addition to measles and mumps, national outbreaks of **Pertussis** and **Varicella** often occur.
- Safe and effective vaccines exist for both conditions.
- Locally, reports for Pertussis and Varicella are higher than three years prior.

### Monthly CD Reporting: PERTUSSIS (Whooping Cough), Mecklenburg

Jan – June 2024 Year to Date Cases	Month of June, 3 YR Average	Year-to-Date (Jan-June) 3 YR Average
19 cases	0 cases	1 case

### Monthly CD Reporting: VARICELLA, Mecklenburg

Jan – June 2024 Year to Date Cases	Month of June, 3 YR Average	Year-to-Date (Jan-June) 3 YR Average
15 cases	1 case	6 cases

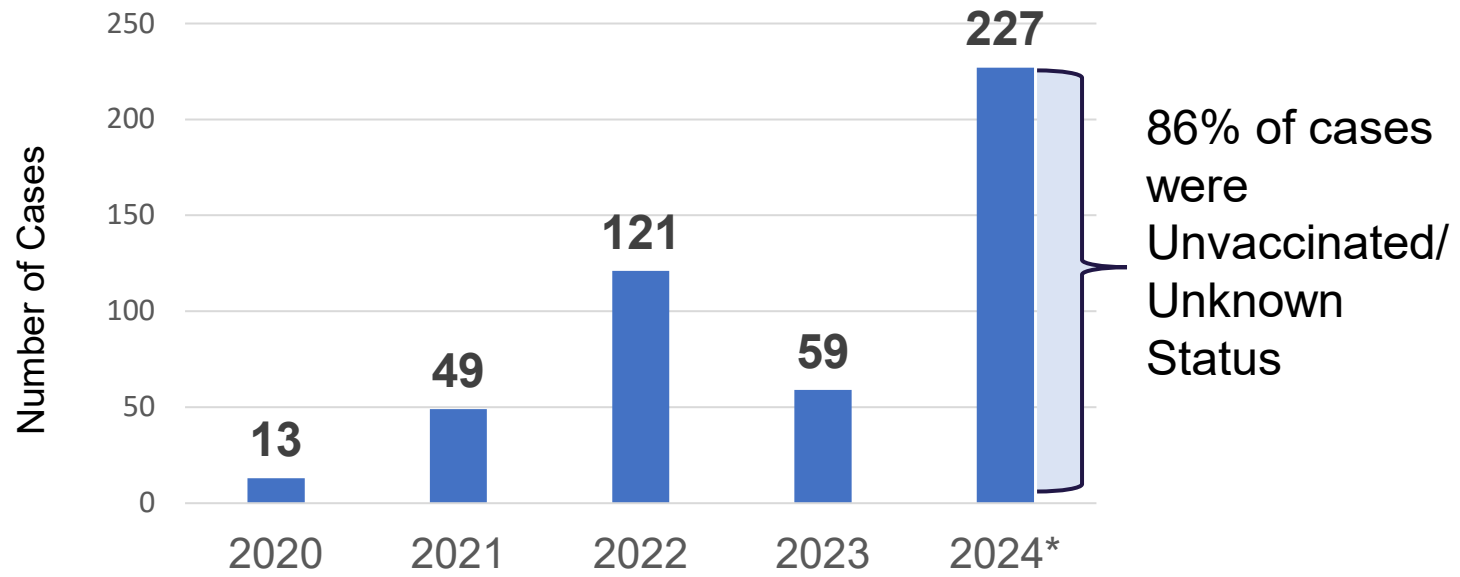
Source: MCPH, Communicable Disease Monthly Report (January – June 2024)



## MEASLES

- Highly contagious viral infection that can lead to serious complications
- **In 2024:** 227 cases and 13 outbreaks reported in the United States.

**Measle Cases in United States, 2020 – 2024\***  
*\*As of August 22, 2024*



Social distancing practices during COVID pandemic potentially limited spread of measles during 2020 and 2021

Source: Centers for Disease Control and Prevention

Between January – June 2024,  
**0 cases of Measles were reported**  
in Mecklenburg County



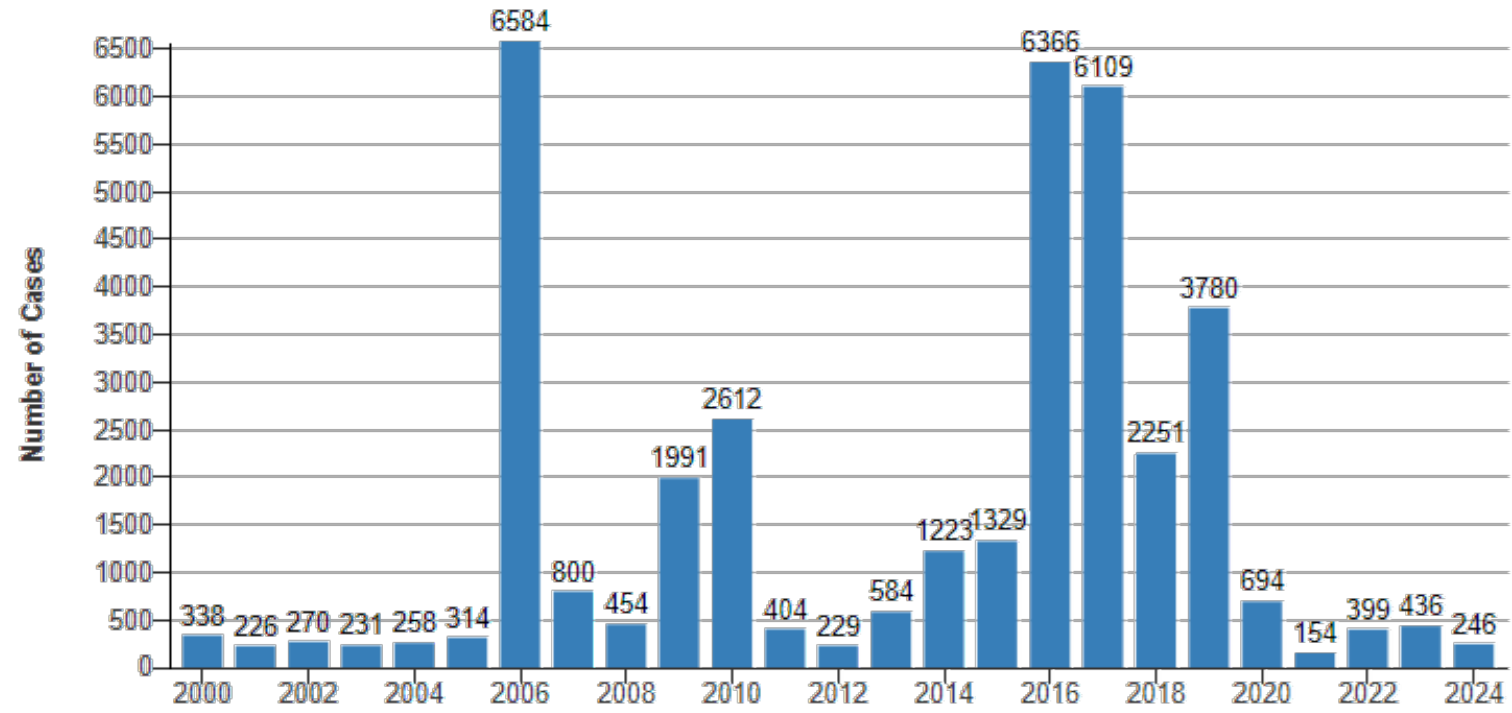
# VPD Outbreaks in United States

## MUMPS

- Contagious viral infection characterized by facial swelling; can lead to serious complications
- Since 2006, U.S. mump cases have increased.

Between January – June 2024,  
**3 cases of Mumps were reported**  
in Mecklenburg County

### Reported U.S. mumps cases by year (2000–2024)



Source: Centers for Disease Control and Prevention



# Public Health Response Updates

- Held school-based vaccines with mobile unit in Spring (200+ kids up-to-date); these will continue throughout this school year
- Hosting two “Big Shot” Back to School Immunization events and offering extended clinic hours prior to 2024 school exclusion date (expect to serve >1,000 students)
- Partnered with childcare facilities, with support of NACCHO grant, to establish vaccine champions and raise awareness among parents
- Implementing new technology solution that gives school nurses easier access to real-time vaccination records to do school-based follow-up



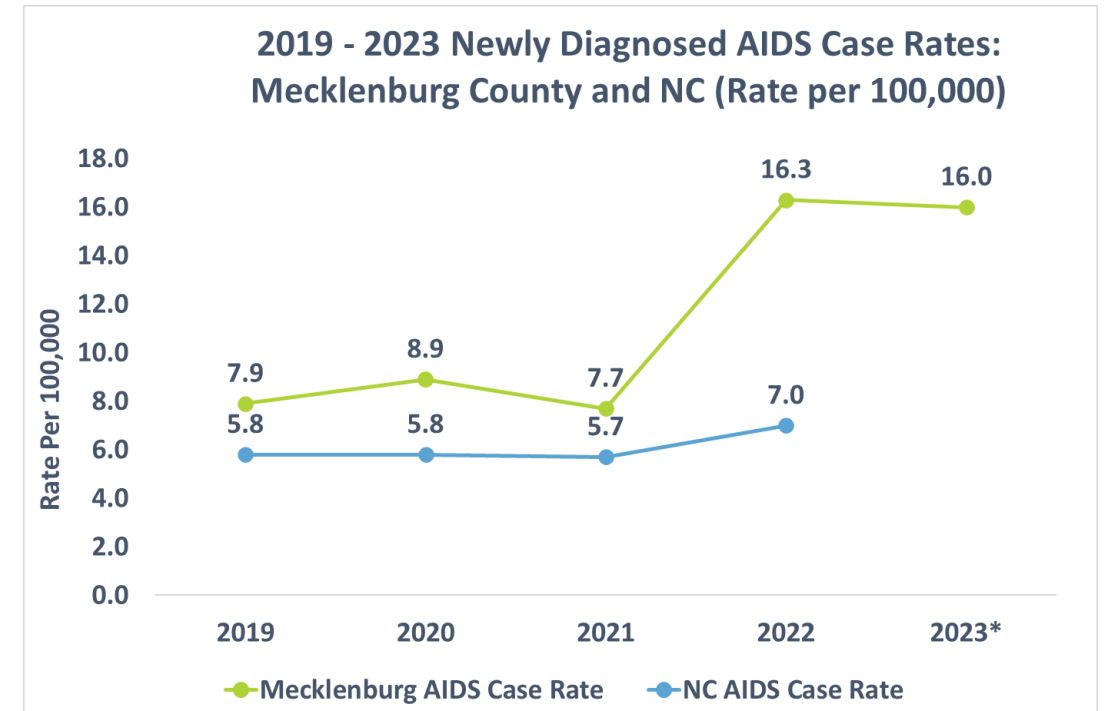
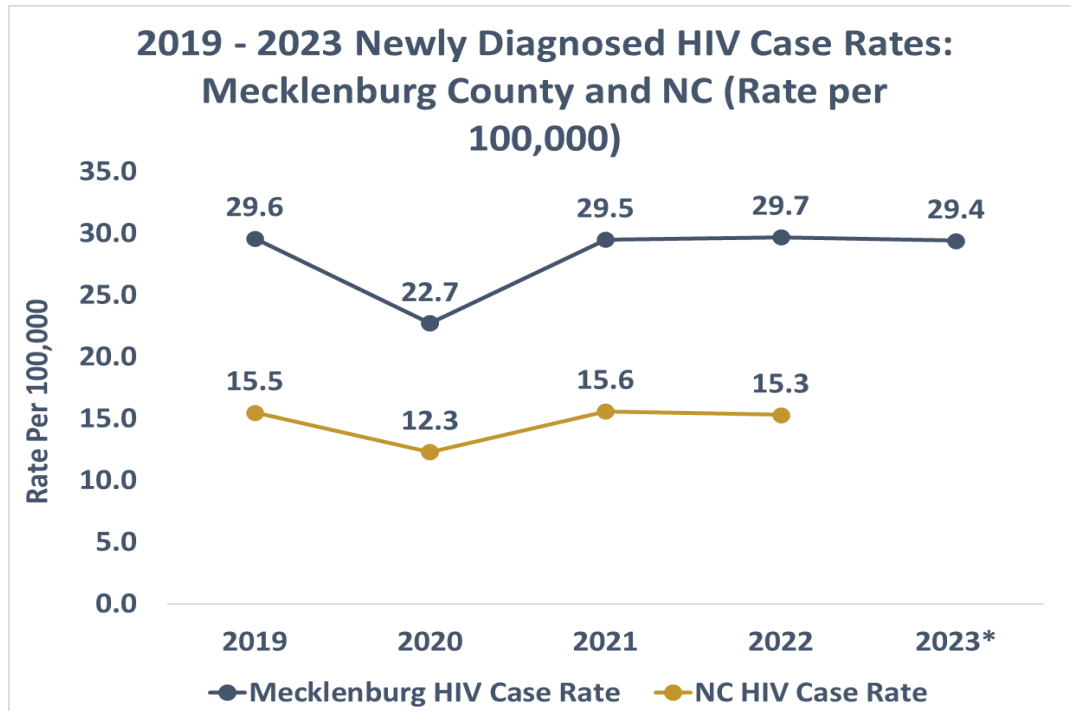
# HIV/AIDS

## in Mecklenburg County



# New HIV Diagnoses<sup>1</sup> in Mecklenburg County , 2019-2024\*

New HIV diagnoses are highest among young (20 to 29 years) African American/Black males



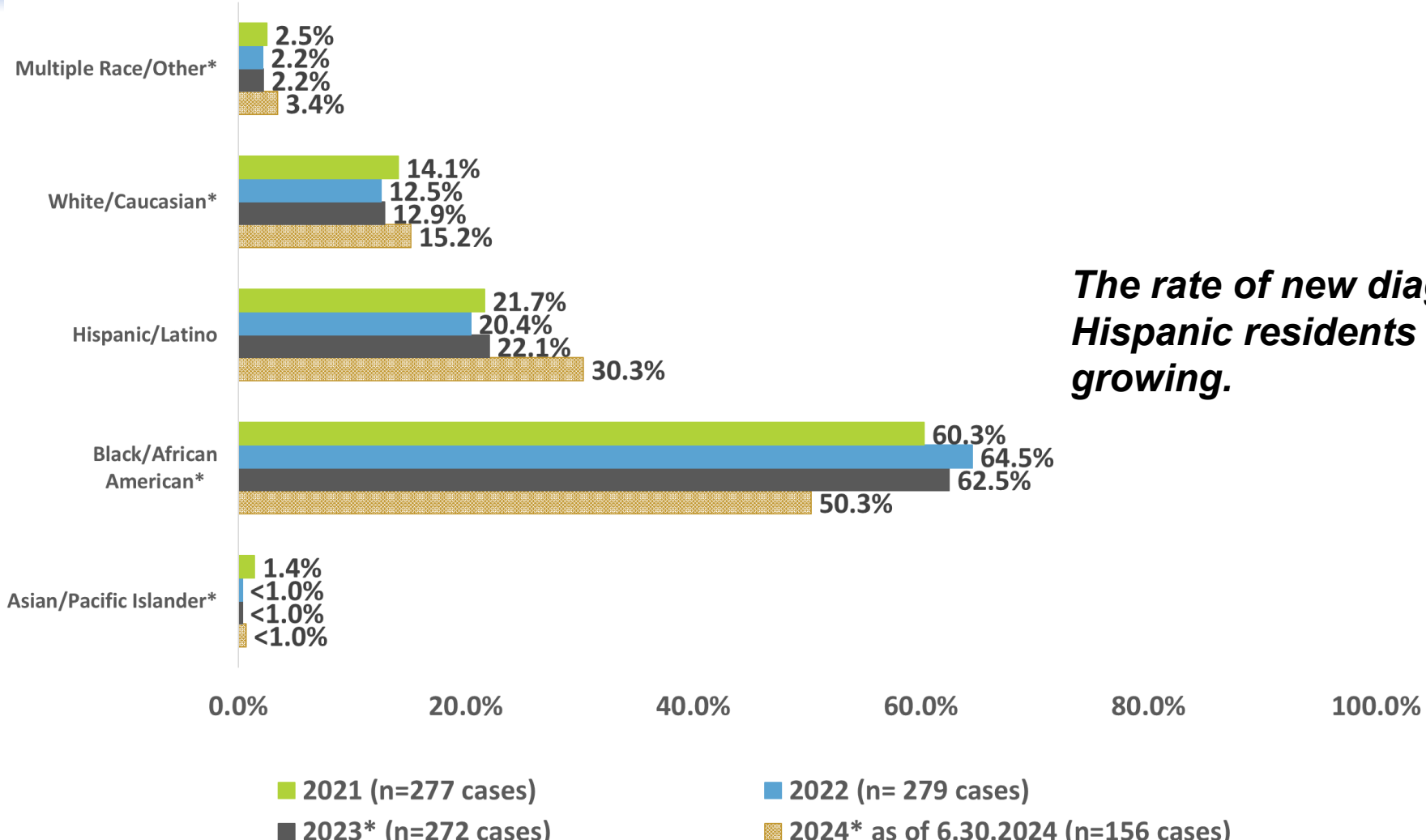
<sup>1</sup>HIV Diagnoses includes all persons with reported HIV regardless of stage of disease, HIV infection or AIDS. AIDS cases are included in these reports. Pediatric cases (0 – 12 yrs.) are not included

\*2023 and 2024 data are preliminary and data subject to change as new information becomes available.

Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# New HIV Diagnoses<sup>1</sup> in Mecklenburg County by Race/Ethnicity, 2021-2024\*



*The rate of new diagnoses among Hispanic residents appears to be growing.*

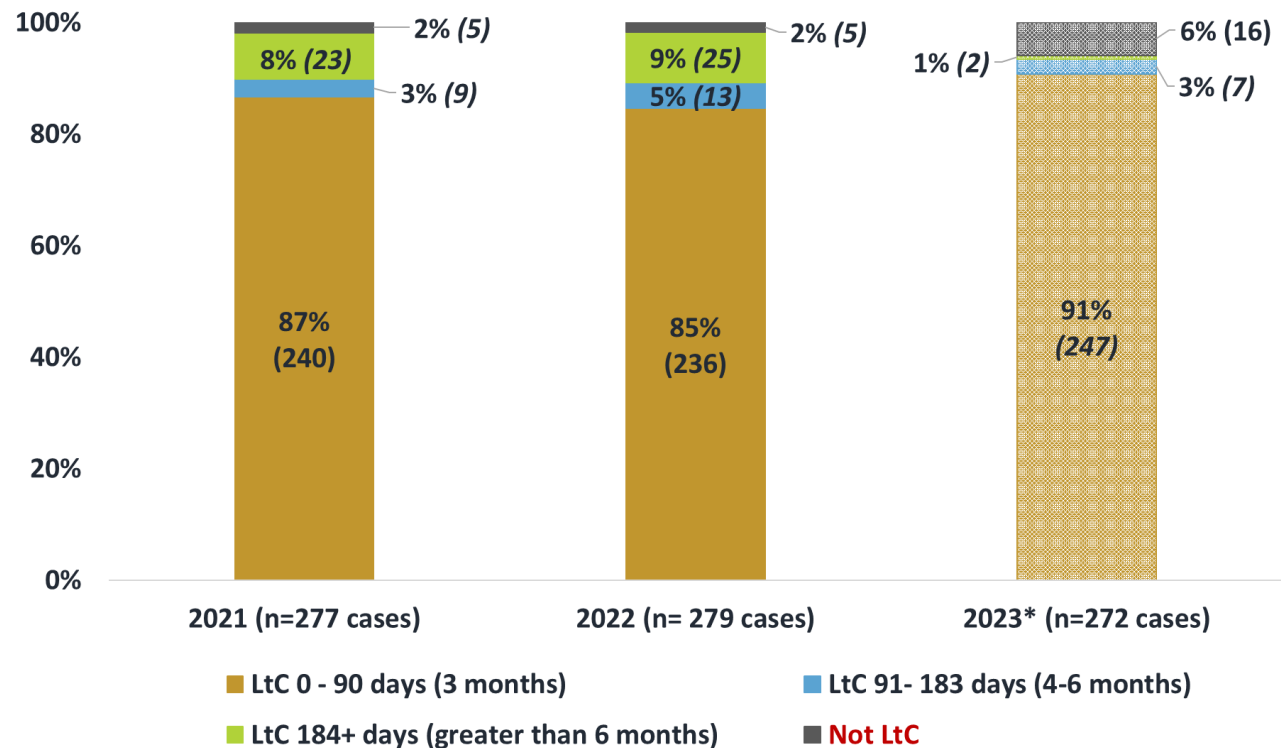
<sup>1</sup>HIV Diagnoses includes all persons with reported HIV regardless of stage of disease, HIV infection or AIDS. AIDS cases are included in these reports. Pediatric cases (0 – 12 yrs.) are not included.  
 \*Non-Hispanic  
 \*2023 and 2024 data are preliminary and should be interpreted with caution. Data subject to change as new information becomes available  
 Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.





# Linkage to Care (LtC) among New HIV Diagnoses<sup>1</sup> in Mecklenburg County, 2021-2023\*

Linkage to Care (LtC) among New HIV Diagnoses in Mecklenburg County, 2021-2023\*



Linkage to care is defined as having a visit or CD4/VL lab with an HIV health care provider within a set time frame of being diagnosed with HIV.

<sup>1</sup>HIV Diagnoses includes all persons with reported HIV regardless of stage of disease, HIV infection or AIDS. AIDS cases are included in these reports. Cases with unknown data were excluded from chart, but are included in total reports.

\*2023 data is preliminary and should be interpreted with caution. Data subject to change as new information becomes available.

Data Source: North Carolina Electronic Disease Surveillance System (NCEDSS), data as of June 2024



# Late HIV Diagnoses among New HIV Diagnoses<sup>1</sup> in Mecklenburg County, 2021-2024\*

Late HIV Diagnosis is defined as a person first diagnosed with HIV that presents for care with a CD4 count < 350 cells/μL or, an AIDS-defining event, or being diagnosed with AIDS within 12 months of initial HIV diagnosis.

Late HIV Diagnosis are higher among:

- Males
- NH African-American
- Young adults ages 20-29; 30-39

	Mecklenburg County reported Late HIV Diagnoses, 2021- 2024*			
	2021	2022	2023*	2024* as of 6.30.2024
Total HIV Cases	277	279	272	156
Total Late HIV Dx Cases	47	65	62	32
<b>Gender</b>				
Male	81%	89%	82%	69%
Female	19%	11%	18%	31%
<b>Race/Ethnicity</b>				
Asian/Pacific Islander*	0%	2%	0%	0%
Black/African American*	55%	57%	58%	50%
Hispanic/Latino	17%	23%	24%	41%
White/Caucasian*	21%	12%	15%	6%
Multiple Race/Other*	6%	6%	3%	3%
<b>Age<sup>2</sup></b>				
13 – 19 years	11%	5%	8%	6%
20 – 29 years	21%	38%	26%	13%
30 – 39 years	23%	32%	31%	44%
40 – 49 years	17%	14%	11%	22%
50 – 59 years	21%	6%	16%	6%
60+ years	6%	5%	8%	9%

<sup>1</sup>HIV Diagnoses includes all persons with reported HIV regardless of stage of disease, HIV infection or AIDS. AIDS cases are included in these reports. Pediatric cases (0 – 12 yrs.) are not included.;

<sup>2</sup>Age at date of Diagnosis

\*Non-Hispanic; \*2023 and 2024 data are preliminary and should be interpreted with caution. Data subject to change as new information becomes available.

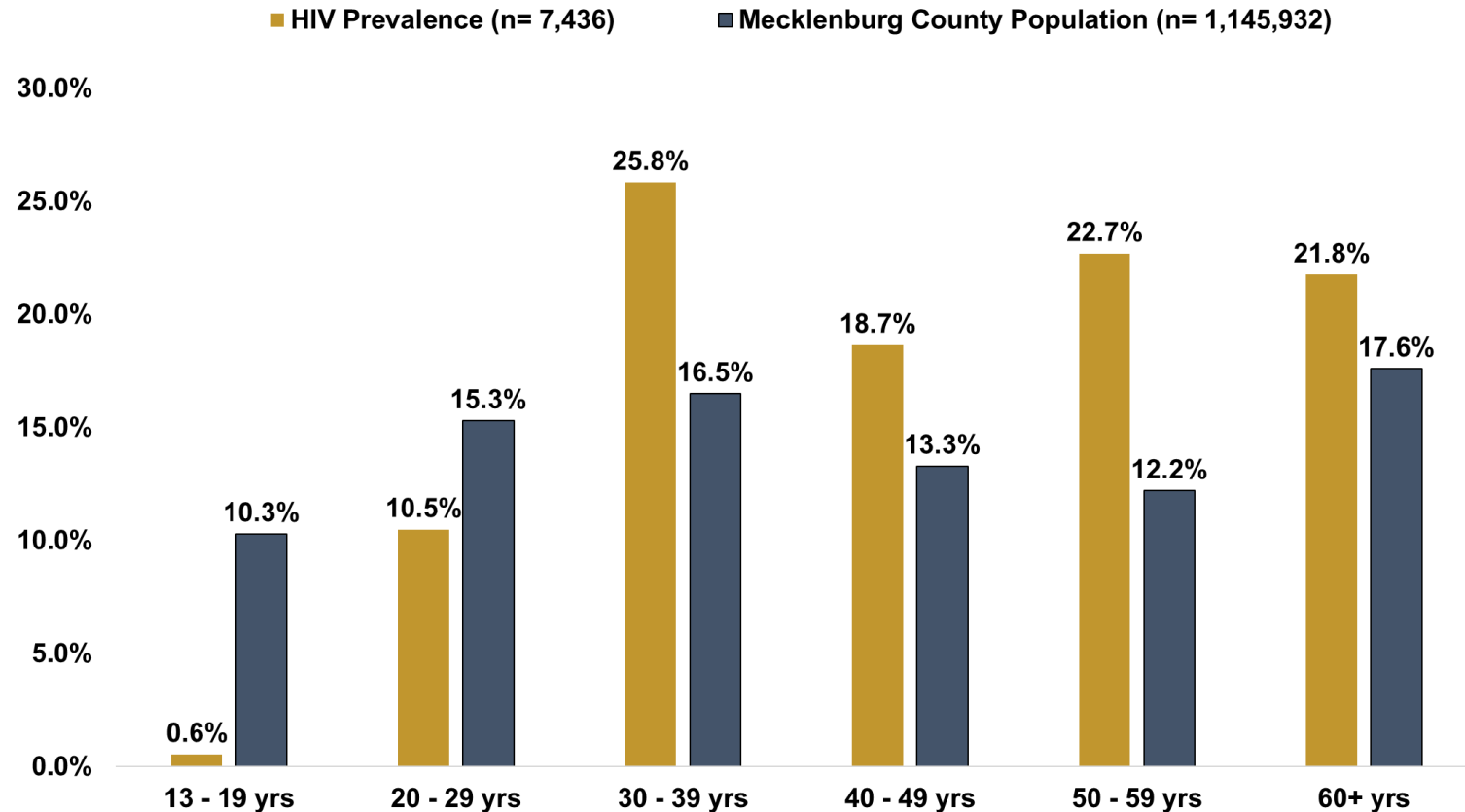
Source: North Carolina Electronic Disease Surveillance System (NCEdSS) as of June 2024.



# HIV Prevalence in Mecklenburg County by Age Groups, 2023\*

*People aged 50 and older account for the largest number of persons living with HIV due to longer life expectancy with advancements in treatment.*

2023 Population Distribution by Age Groups



Percentages may not total 100% due to rounding

Source: United States Census. Charlotte MSA, American Community Survey population estimates

\*2023 data is preliminary and should be interpreted with caution. Data subject to change as new information becomes available.

Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# Public Health Response Updates

- Getting to Zero Plan and community advisory body guiding response activities.
- Increased access to HIV testing via more data driven approach to community based testing, mobile unit, and free at-home test kits
- Launched Rapid HIV treatment in MCPH Clinics
- Expanded capacity of MCPH HIV PrEP Clinic
- Providing array of supportive services to residents living HIV/AIDS via case management program
- Extensive social marketing efforts via social media, dating apps, and grassroots engagement



# Syphilis

## in Mecklenburg County

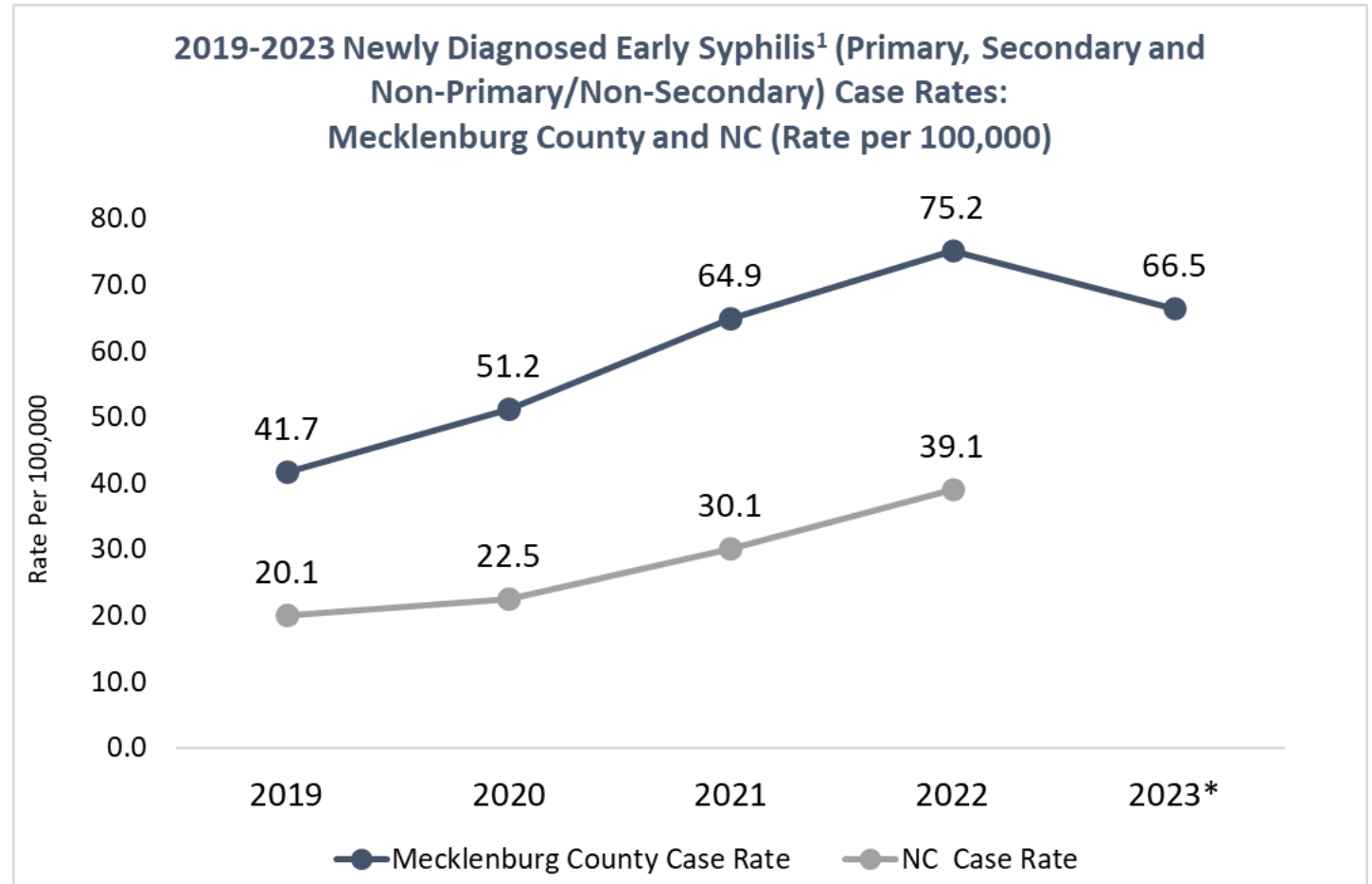


# New Early Syphilis<sup>1</sup> Diagnoses in Mecklenburg County , 2019-2023\*

- Early Syphilis rates increased between 2019 – 2022
- Early syphilis rates decreased in 2023 in Mecklenburg County

In 2023:

- **742** Early Syphilis diagnoses were reported in Mecklenburg County
- **60%** increase compared to 2019 case reports (N=464 cases)



<sup>1</sup>Early syphilis is defined as primary, secondary, or early non-primary non-secondary (formerly early latent) syphilis.

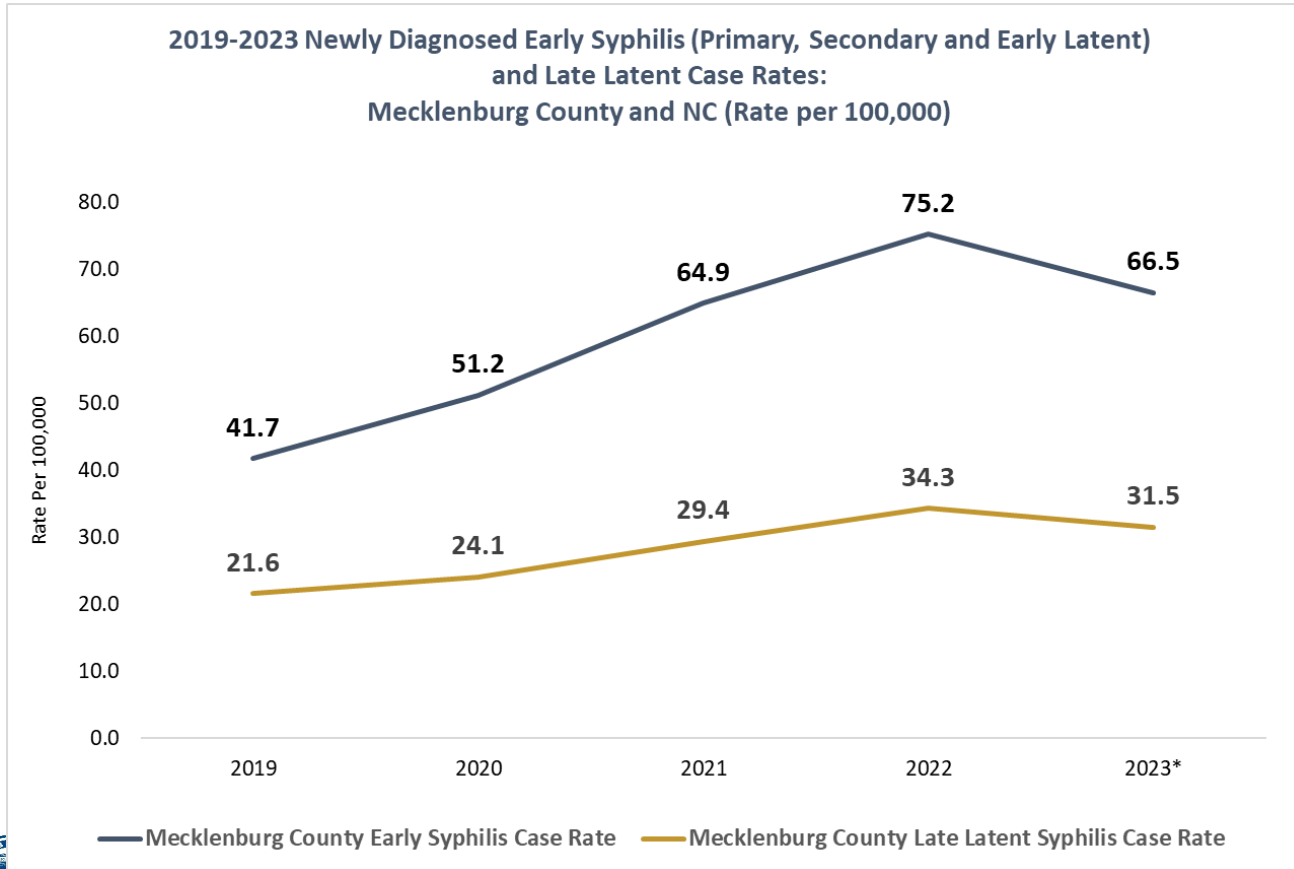
\*2023 Data is preliminary and subject to change as new information becomes available.

Data Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# New Early<sup>1</sup> and Late Latent Syphilis Diagnoses, Mecklenburg County, 2019 – 2024\*

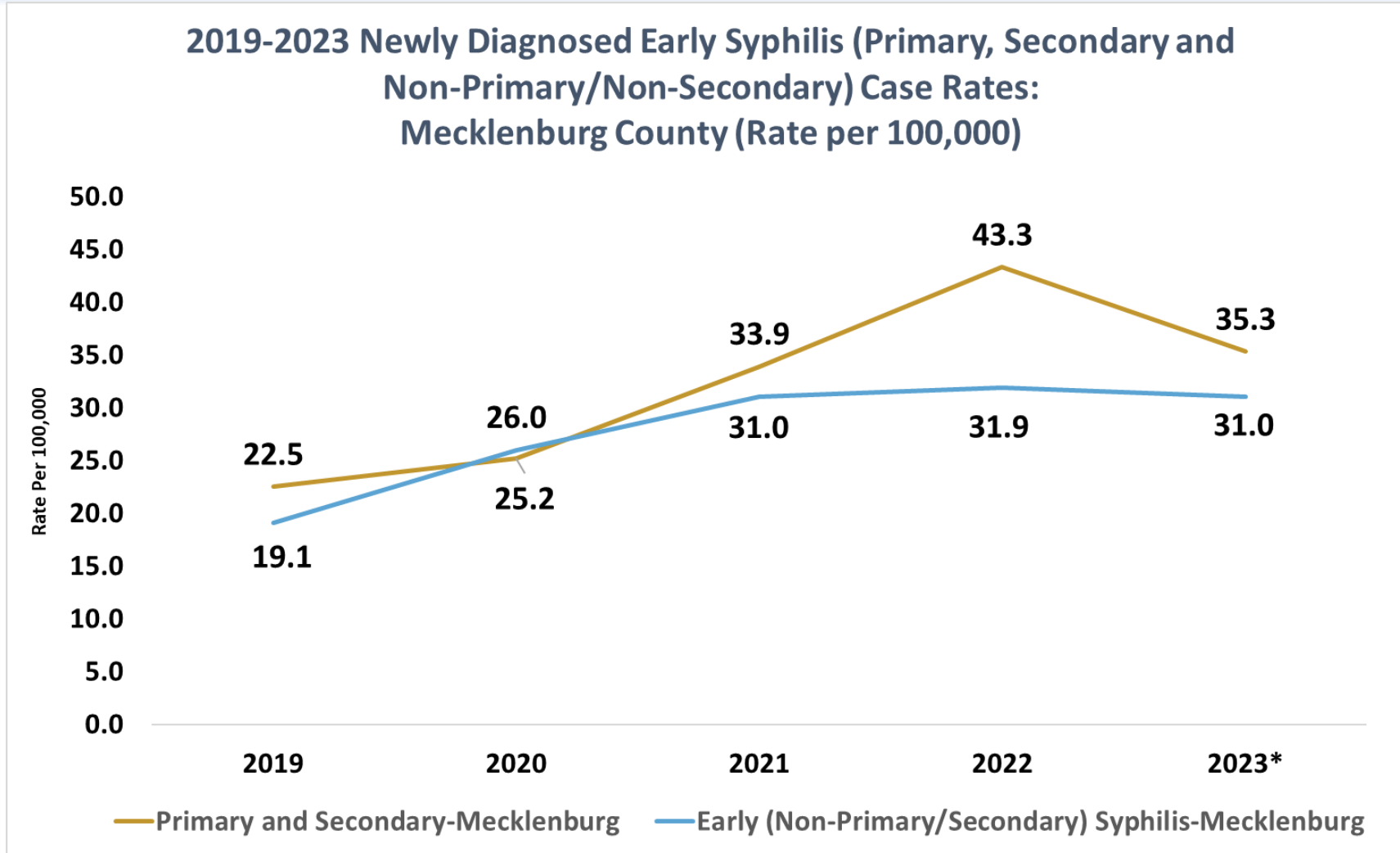
Year	2019	2020	2021	2022	2023*	2024* as of 6.30.2024
Early Syphilis	464	571	728	844	742	404
Late Latent Syphilis	241	269	331	392	366	218



<sup>1</sup>Early syphilis is defined as primary, secondary, or early non-primary non-secondary (formerly early latent) syphilis.  
 \*2023 and 2024 Data are preliminary and subject to change as new information becomes available.  
 Data Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# Early Syphilis<sup>1</sup> Diagnoses in Mecklenburg County, 2019-2023\*



<sup>1</sup>Early syphilis is defined as primary, secondary, or early non-primary non-secondary (formerly early latent) syphilis.

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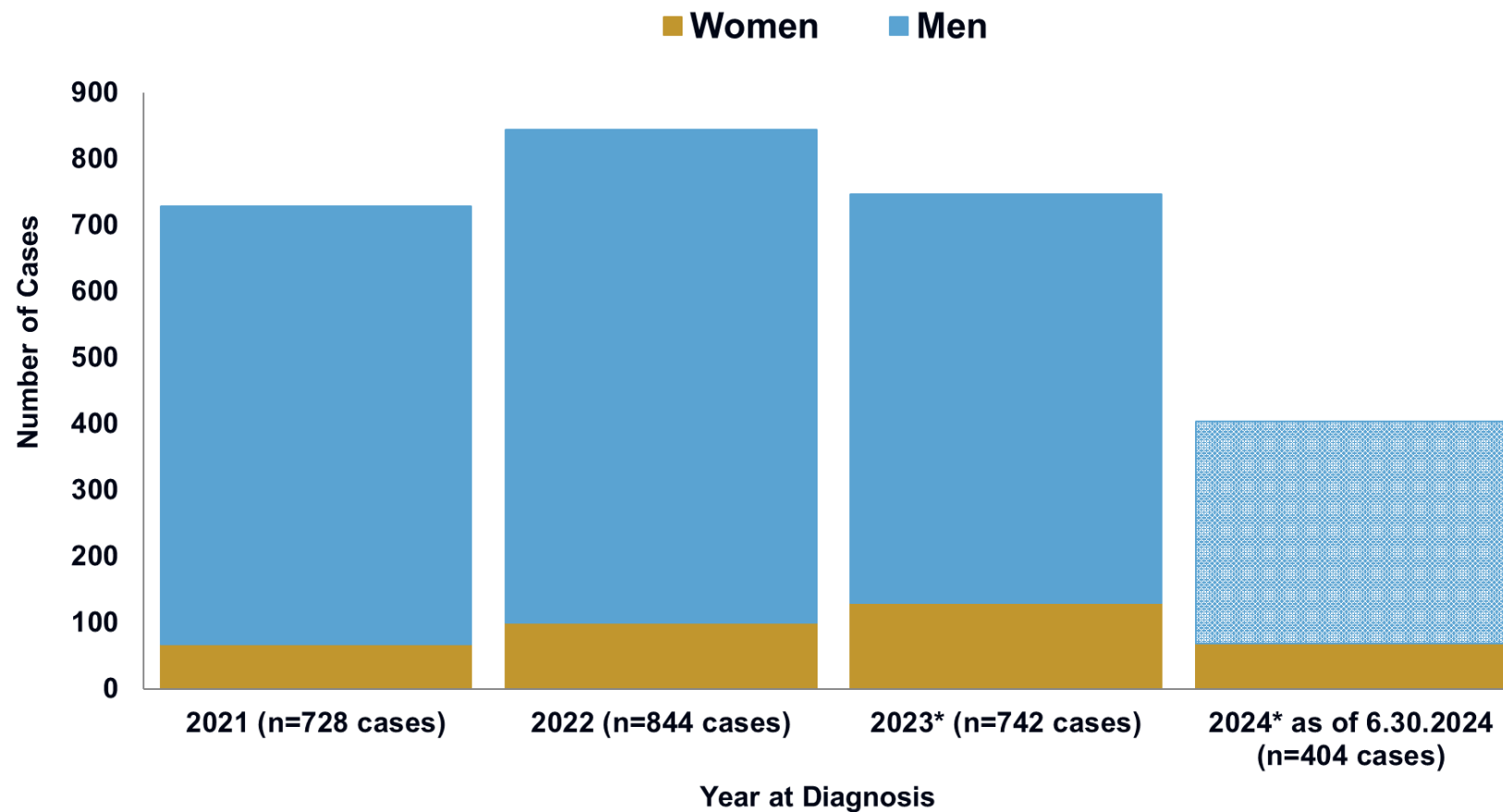
Data Source: North Carolina Electronic Disease Surveillance System (NCEdSS) as of June 2024.





# Early Syphilis<sup>1</sup> Diagnoses by Gender in Mecklenburg County, 2021-2024\*

- Males accounted for majority of cases reported each year between 2019 -2023
- In 2023\*, **9** out of **10** new Early Syphilis infections were among males.



<sup>1</sup>Early syphilis is defined as primary, secondary, or early non-primary non-secondary (formerly early latent) syphilis.

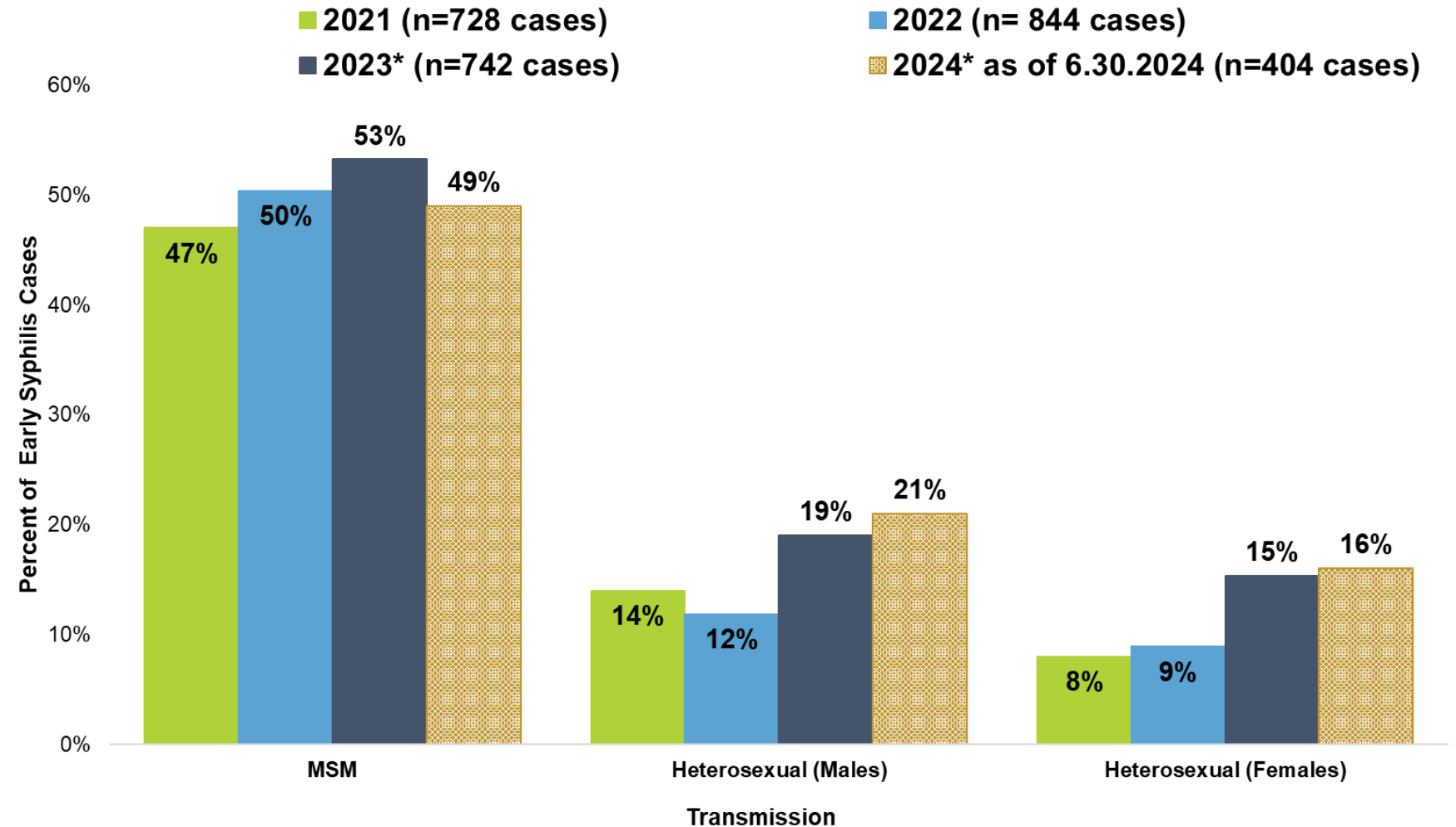
\*2023 and 2024 Data are preliminary and subject to change as new information becomes available.

Data Source: North Carolina Electronic Disease Surveillance System (NCEdSS) as of June 2024.



# Early Syphilis<sup>1</sup> Diagnoses by Transmission in Mecklenburg County, 2021-2024\*

- In 2023, approximately **50%** of new Early Syphilis diagnoses were individuals who self-reported MSM transmission.



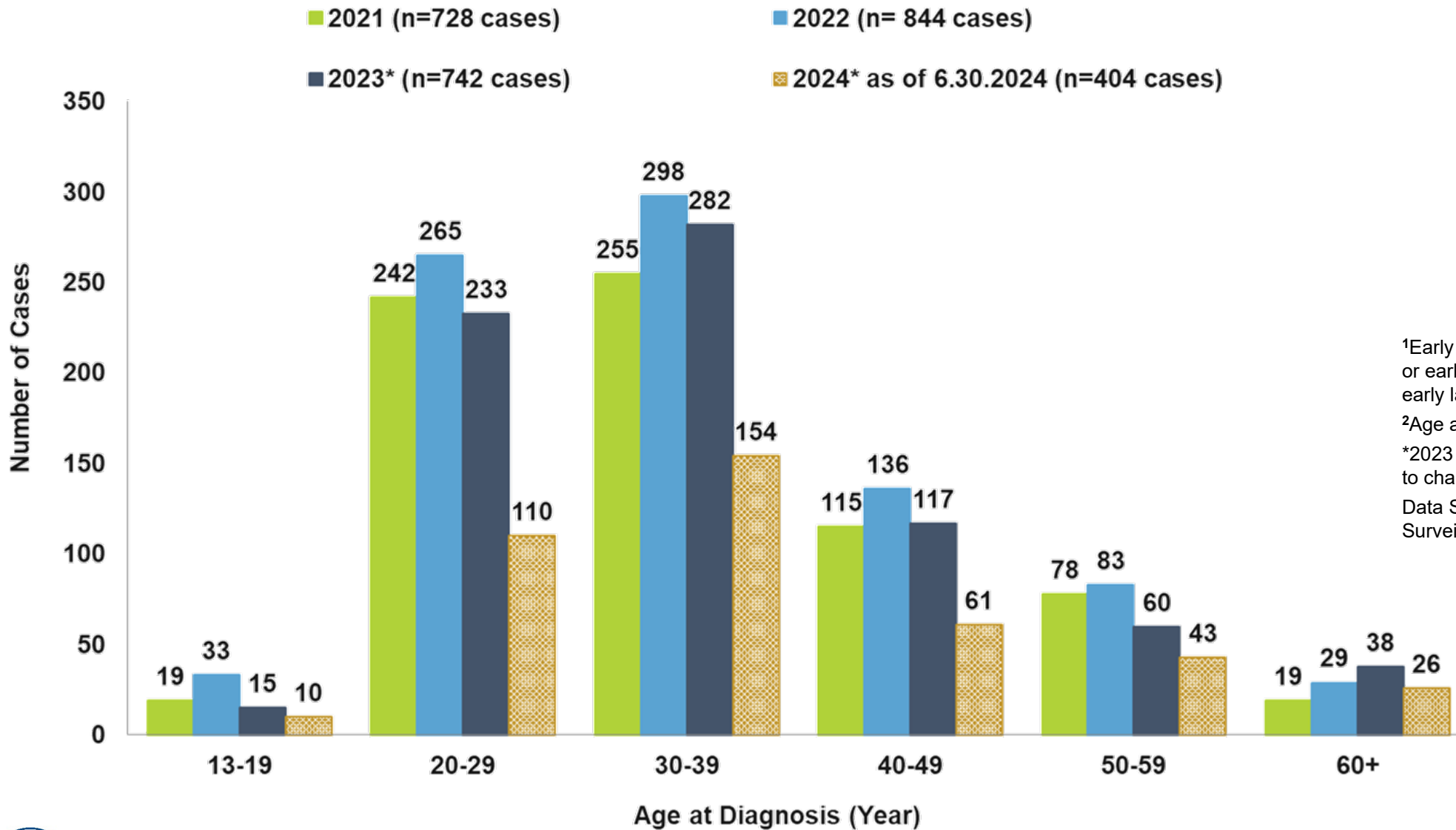
<sup>1</sup>Early syphilis is defined as primary, secondary, or early non-primary non-secondary (formerly early latent) syphilis.

\*2023 and 2024 Data are preliminary and subject to change as new information becomes available.

Data Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# Early Syphilis<sup>1</sup> Diagnoses by Age Groups<sup>2</sup> in Mecklenburg County, 2021-2024\*



<sup>1</sup>Early syphilis is defined as primary, secondary, or early non-primary non-secondary (formerly early latent) syphilis.

<sup>2</sup>Age at date of Diagnosis

\*2023 and 2024 Data are preliminary and subject to change as new information becomes available.

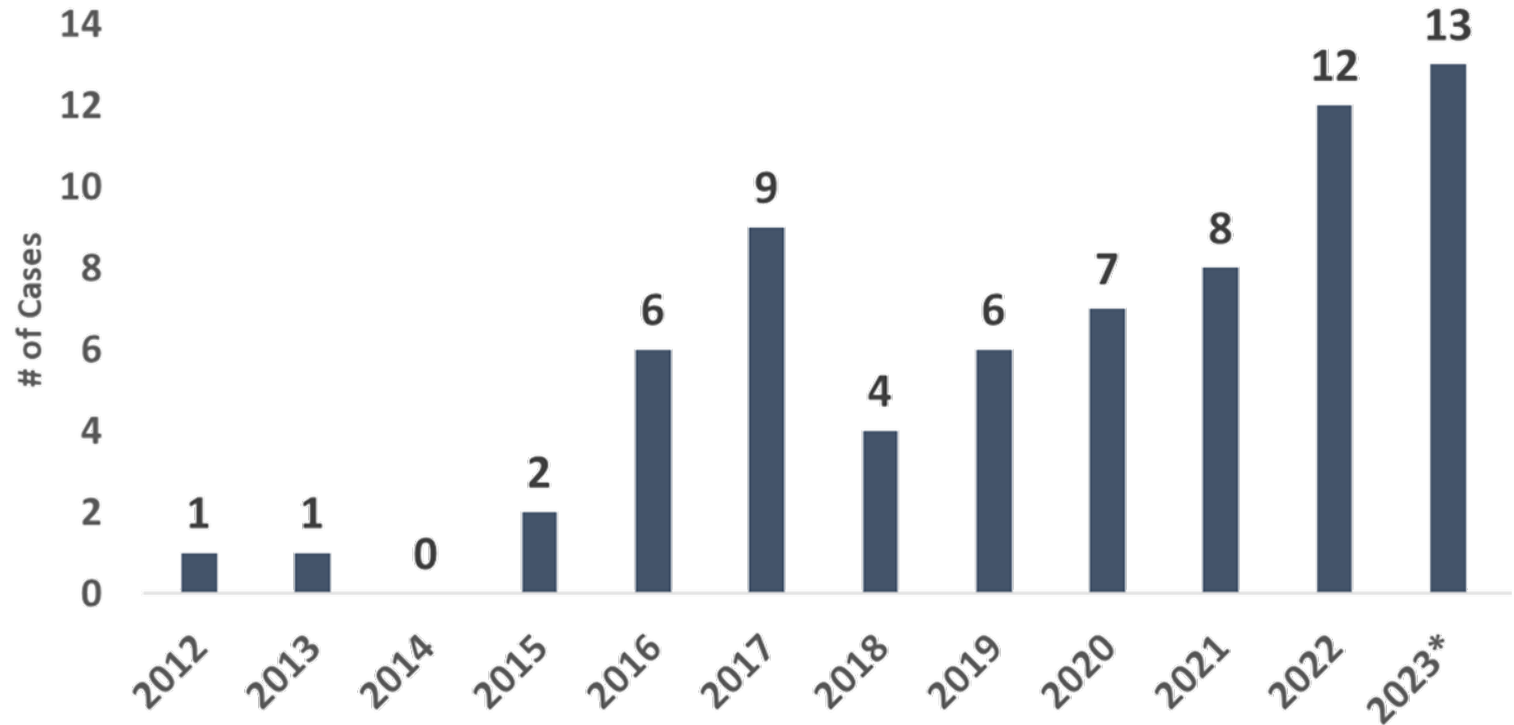
Data Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# Congenital Syphilis<sup>1</sup> Cases in Mecklenburg County by Birth Year, 2012-2024\*

- Mecklenburg County has reported an increase in Congenital Syphilis cases between 2018-2023.
- In 2023\*, there were 13 presumptive/probable cases of congenital syphilis.
  - **46%** identified as Non-Hispanic African Americans
  - **23%** identified Hispanics

Mecklenburg County Congenital Syphilis<sup>1</sup> Cases by Year of Birth, 2012-2024\*



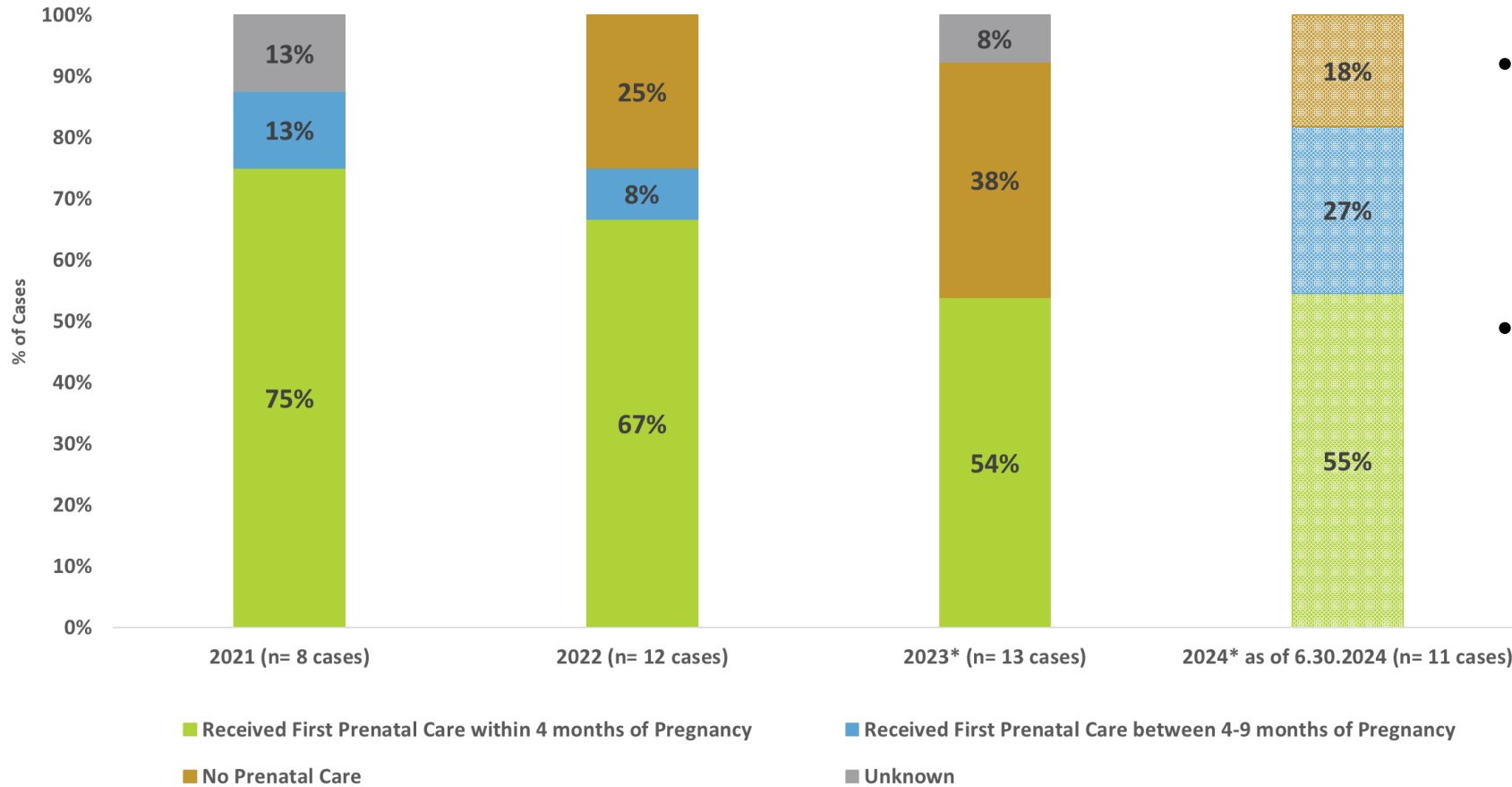
<sup>1</sup> Reported probable Congenital Syphilis cases. Probable cases rely on clinical presentation and/or supportive laboratory criteria for designation AND are not considered laboratory confirmed cases  
\*2023 and 2024 data are preliminary and should be interpreted with caution. Data subject to change as new information becomes available.

Data Source: North Carolina Electronic Disease Surveillance System (NCEDSS) as of June 2024.



# Congenital Syphilis<sup>1</sup> Diagnoses in Mecklenburg County by First Prenatal Care Visit, 2021-2024\*

Mecklenburg County Congenital Syphilis<sup>1</sup>  
by Year of Birth and First Prenatal Care Visit, 2021-2024\*



- Most mothers, who delivered a baby diagnosed with CS, attended their 1<sup>st</sup> PNC visit within 4 months of pregnancy.
- However, there has been an increase among mothers who delivered babies diagnosed with CS that received no PNC during their pregnancy.

<sup>1</sup> Reported probable Congenital Syphilis cases. Probable cases rely on clinical presentation and/or supportive laboratory criteria for designation AND are not considered laboratory confirmed cases. Percentages may not total 100% due to rounding

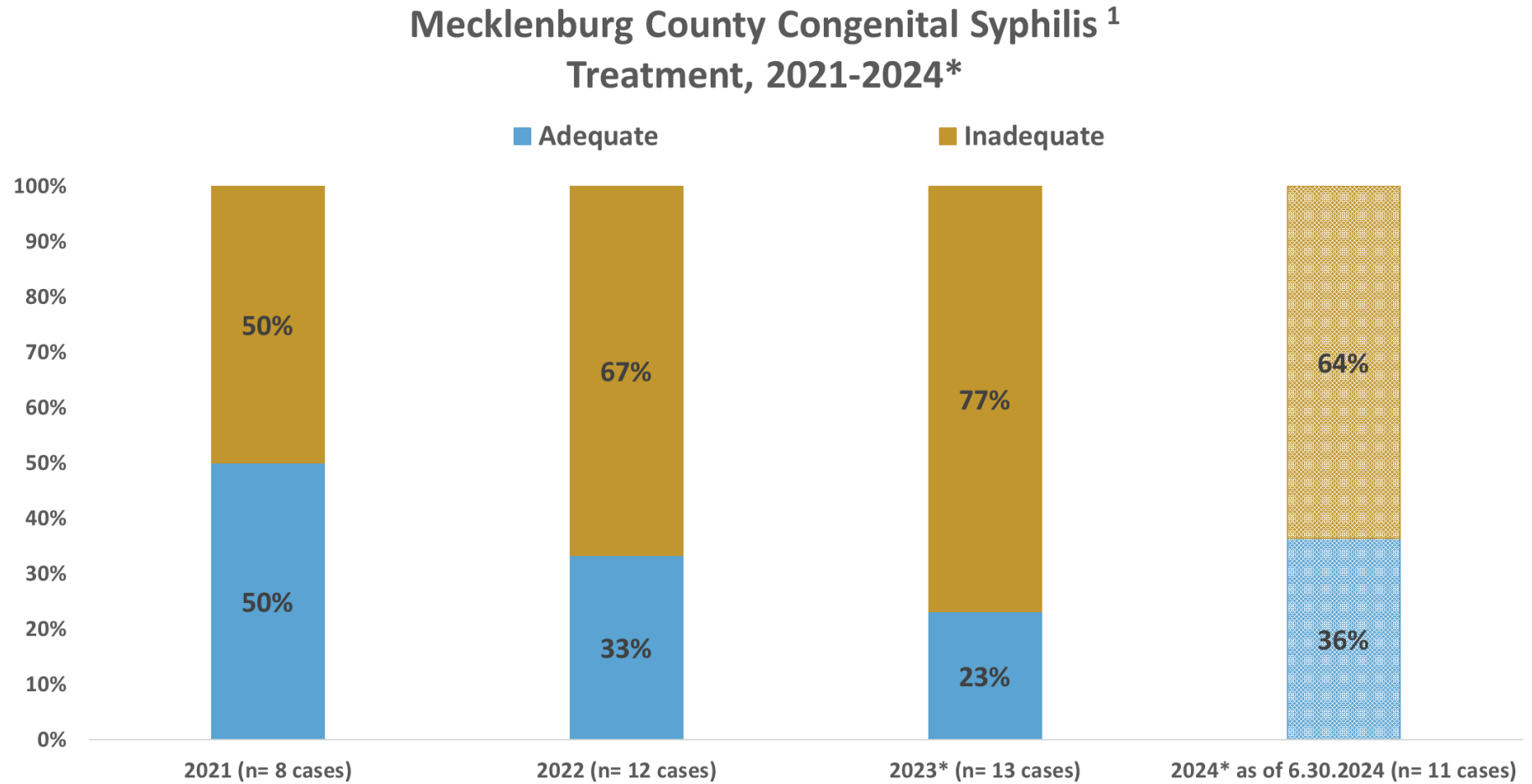
\*2023 and 2024 data are preliminary and should be interpreted with caution. Data subject to change as new information becomes available.

Data Source: NCDHHS Vital Statistics Birth data, 2019- 2022; North Carolina Electronic Disease Surveillance System (NCEDSS), data as of June 2024



# Treatment of Congenital Syphilis<sup>1</sup> Diagnoses in Mecklenburg County, 2021-2024\*

- In 2023, 77% of mothers who gave birth to babies diagnosed with CS were not appropriately treated for syphilis during pregnancy (N=10)
- Data show a trend of mothers with Syphilis being adequately treated early in pregnancy. These mothers may be reinfected later during the same pregnancy and are not adequately treated.



<sup>1</sup> Reported probable Congenital Syphilis cases. Probable cases rely on clinical presentation and/or supportive laboratory criteria for designation AND are not considered laboratory confirmed cases. Percentages may not total 100% due to rounding.

\*2023 and 2024 data are preliminary and should be interpreted with caution. Data subject to change as new information becomes available.

Data Source: NCDHHS Vital Statistics Birth data, 2019- 2022; North Carolina Electronic Disease Surveillance System (NCEDSS), data as of June 2024



# Public Health Response Updates

- Implementing Congenital Syphilis Response Plan:
  - Case management for pregnant women with syphilis
  - Continue universal case reviews with NC DHHS
  - Developing home-based syphilis treatment program
  - Healthcare provider education campaign
- Increased access to syphilis testing via more data driven approach to community based testing, mobile unit, and free at-home test kits
- Launched Doxy PEP in MCPH Clinics
- Hosting 2<sup>nd</sup> Syphilis Prevention and Treatment Summit – October 1, 2024
- Developing second phase of social marketing efforts via social media, dating apps, OB/GYN practices and healthcare systems

