

# 2022 Monkeypox Outbreak and Public Health Response

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September 26, 2022



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**



NCDHHS Monkeypox Response

## TODAY'S TOPICS

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- **Monkeypox Symptoms and Spread, 2022 Outbreak Data**
  - Zack Moore, MD, MPH – State Epidemiologist and Epidemiology Section Chief
- **Public Health Response: Testing, Vaccines, Treatment**
  - Catherine Guerrero, MPA – Vaccine Program Manager and Health Equity Lead
- **Equity, Communications and Outreach**
  - Robin Deacle – Senior Director, Office of Communications

# Monkeypox: Symptoms and Spread

**WARNING – GRAPHIC IMAGES**

# How it Spreads

Most often spread through close contact, including:

- Direct skin-to-skin contact with the monkeypox rash, sores, or scabs
- Contact with objects that have been used by someone with monkeypox (e.g., clothes, linens)
- Exposure to respiratory droplets or oral fluids during prolonged face-to-face contact with someone with monkeypox
- From pregnant people to the fetus through the placenta

Individuals are infectious until all scabs have fallen off and a fresh layer of skin has formed

Incubation: 5 to 21 days, usually 7 to 14 days

## MONKEYPOX SYMPTOMS

- Typically, but not always, begins with flu-like symptoms, lymphadenopathy
- Rash appears within 5 days after prodrome. Lesions may be all over or localized.
- Rash from bumps to vesicles and then pustules before scabbing over and resolving over a period of 2-4 weeks.
- Lesions are usually firm, well circumscribed, and deep seated
- Atypical presentations common in current outbreak



a) early vesicle, 3mm diameter



b) small pustule, 2mm diameter



c) umbilicated pustule, 3-4mm diameter



d) ulcerated lesion, 5mm diameter



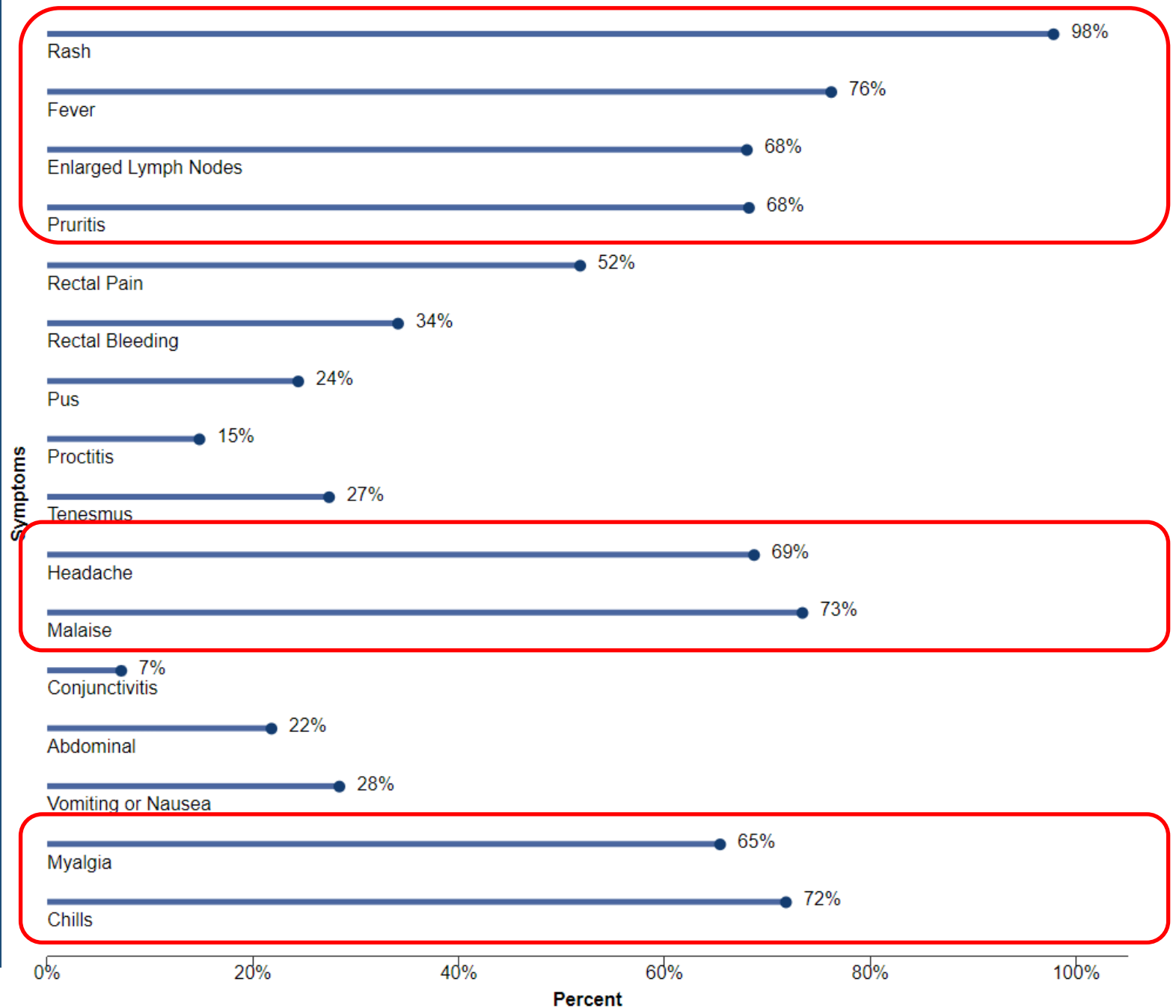
e) crusting of a mature lesion



f) partially removed scab



# Symptoms of Monkeypox Cases Reported to CDC



# 2022 Outbreak Data

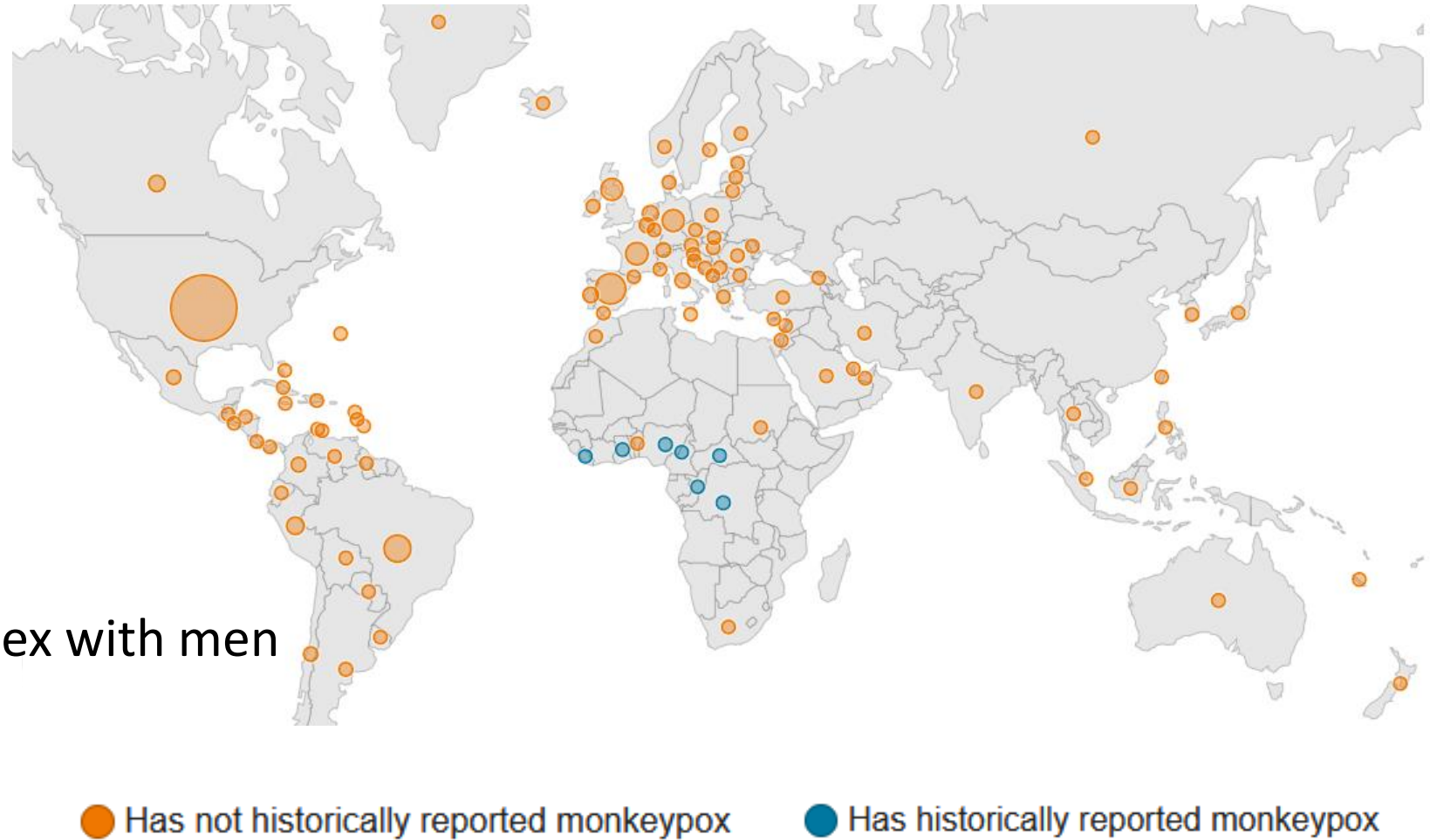
# Current Outbreak – Global and National

## Globally

- 64,835 cases in countries that have not historically reported monkeypox

## US

- 24,846 cases
  - 79% in men who report sex with men
  - 33% White non-Hispanic
  - 31% Hispanic
  - 31% Black non-Hispanic
  - 4% Asian





# National Coinfection Data

In the U.S., HIV or recent sexually transmitted infections (STIs)\* are common among people with monkeypox

Among nearly 2,000 people with monkeypox:†



38%  
had HIV



41%  
had an STI in the past year



61%  
had either HIV or an STI

It is important to

Prioritize people with HIV and STIs for monkeypox vaccination

Offer HIV and STI screening for people evaluated for monkeypox



\*Diagnosed with an STI other than HIV in the past year

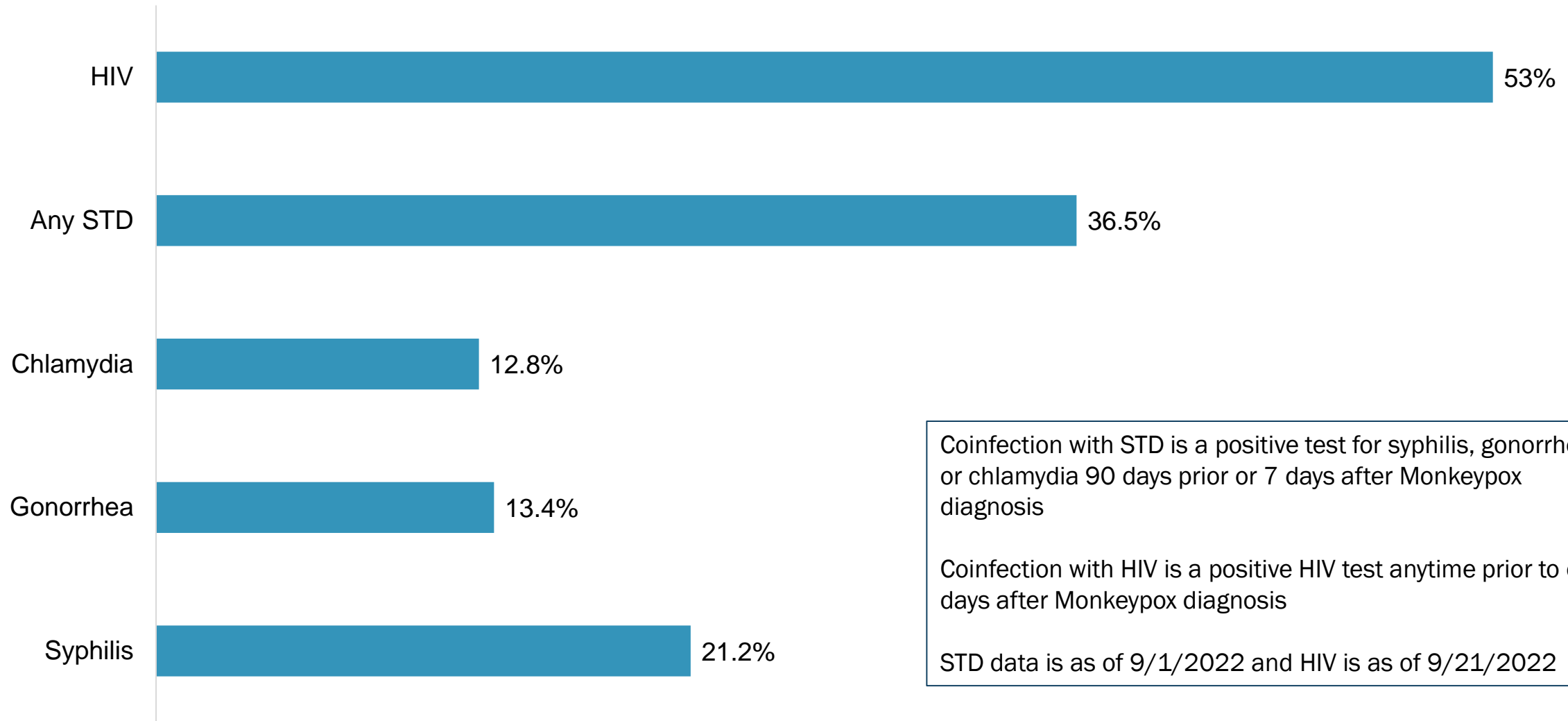
† People diagnosed with monkeypox in eight jurisdictions during May 17–July 22, 2022

[bit.ly/mm7136a1](https://bit.ly/mm7136a1)

SEPTEMBER 9, 2022

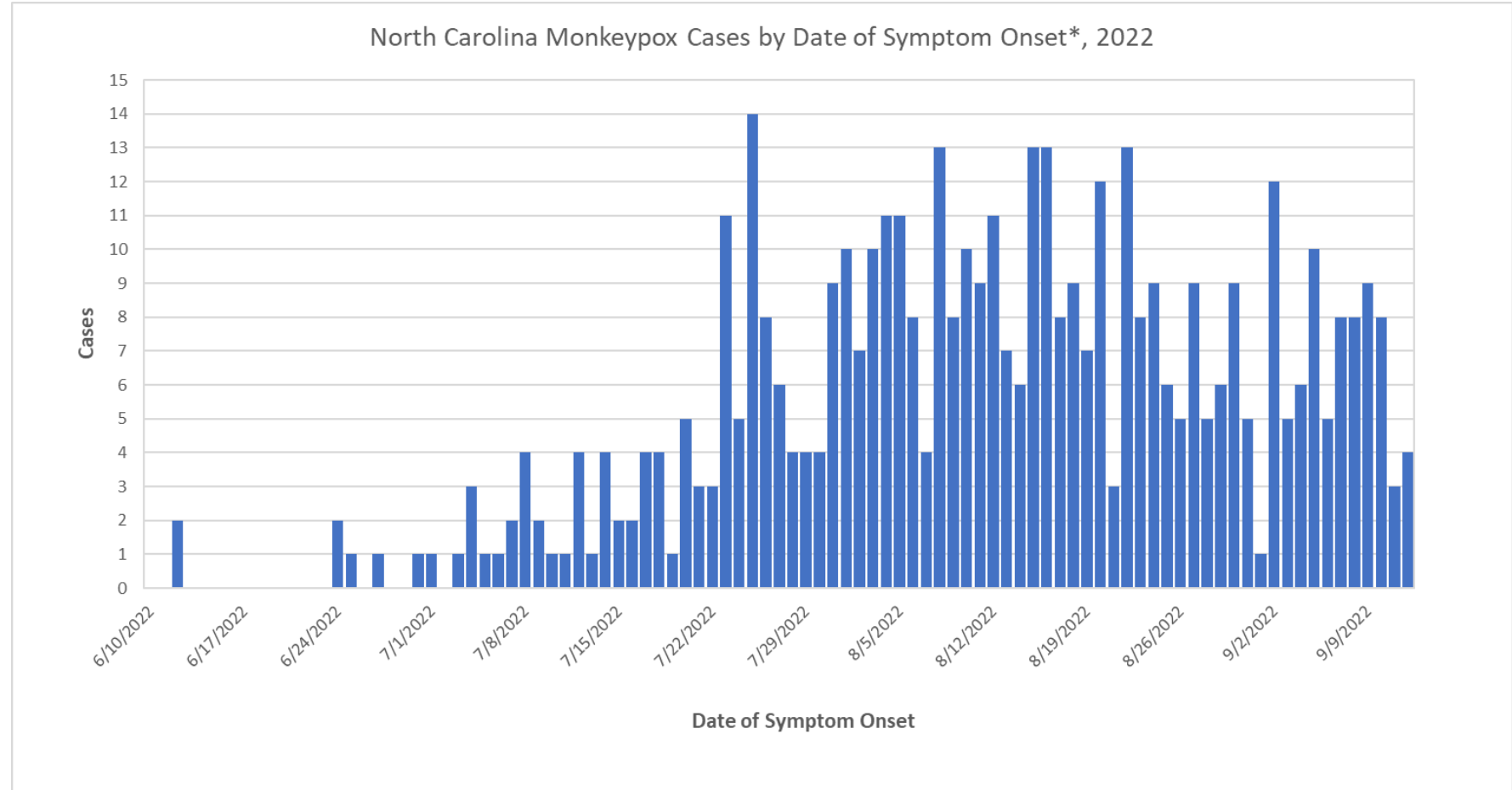
MMWR

# North Carolina Monkeypox Coinfection



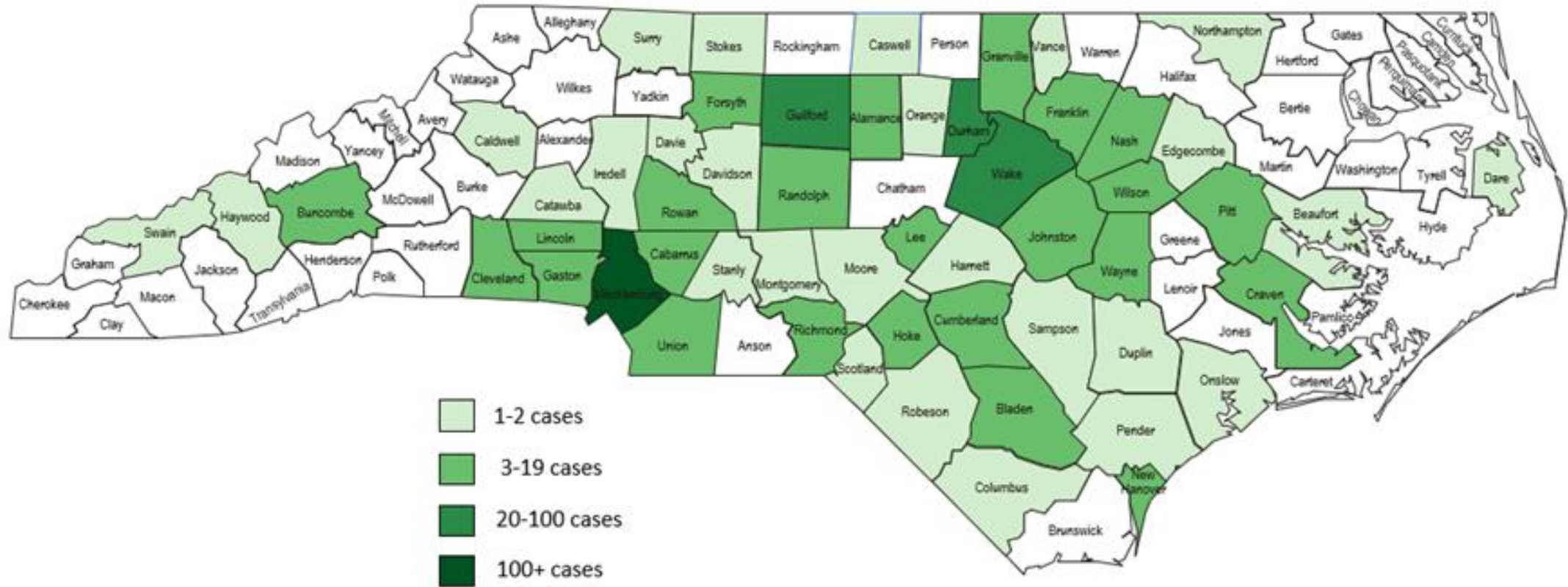
# North Carolina Case Demographics and Trends

North Carolina Monkeypox Case Demographic Data	Number of Cases (%)
Total	510
<b>Sex/Gender</b>	
Male	496 (97)
Female	12 (2)
Other than sex assigned at birth	2 (<1)
<b>Age</b>	
0-17	3 (1)
18-29	186 (36)
30-49	287 (56)
50+	34 (6)
<b>Race</b>	
American Indian/Alaskan Native	3 (1)
Asian	1 (<1)
Black or African American	358 (70)
Native Hawaiian or Pacific Islander	0
White	115 (23)
Multi-racial	16 (3)
Other	13 (3)
Unknown	2 (<1)
<b>Ethnicity</b>	
Hispanic	49 (11)
Non-Hispanic	378 (85)
Unknown	19 (4)
<b>Coinfection</b>	
Known to be living with HIV	274 (53)



Data as of September 21, 2022

# North Carolina Case Demographics and Trends



35% of cases are in Mecklenburg County. 55 counties have at least one case

Data as of September 21, 2022

# Overview of North Carolina Monkey Pox Response

# Monkeypox: Evolving Public Health Response

- Raising public awareness and vaccine equity events through community partnerships
- Testing
  - Wide availability of testing
  - State Laboratory of Public Health, several commercial laboratories, and some academic medical centers
- Treatment
  - Medications developed for similar viruses can be used to treat severe cases
  - Tecovirimat (TPOXX) available through Strategic National Stockpile under EA-IND protocol
  - NCDHHS working to streamline access, including pre-positioning doses with providers
- Vaccination
  - JYNNEOS vaccine FDA approved for prevention of monkeypox
  - Can prevent or reduce severity of symptoms if given within 14 days after exposure (post-exposure, PEP)
  - Can be given before exposure to those at higher risk (pre-exposure, PrEP)

# Testing

# Testing is Widely Available

- Testing is available at NC State Laboratory of Public Health and many commercial and hospital labs
- Test is for any patients with symptoms consistent with monkeypox
- NCDHHS working with clinicians to ensure testing can be done wherever patients are seeking care



# Vaccination

# VACCINE OPTIONS – JYNNEOS AVAILABLE

- JYNNEOS vaccine is available through Strategic National Stockpile (SNS) to mitigate spread of Monkeypox
- Can prevent or reduce severity of symptoms if given within 14 days after exposure
- Can be given before exposure to those at higher risk
- Required to be administered intradermally except for:
  - People <18 years old
  - People with history of keloid scarring

Name	Indication	Dosing & Administration	Availability	Storage and Handling	Notes
<p><b><u>JYNNEOS</u></b></p> <p>Also known as: Imvamune Imvanex</p>	<p>FDA approved for prevention of smallpox &amp; monkeypox in <b>adults 18+</b></p> <p><b>Individuals &lt;18 can be treated under expanded access IND.</b></p>	<p><b>Intradermal injection</b> 2 doses (0.1 mL each) administered 4 weeks apart.</p> <p><b>Subcutaneous injection</b> 2 doses (0.5 mL each) administered 4 weeks apart.</p>	<p>SNS request;</p> <p><b>~ 1.9M doses by end of 2022</b></p> <p>~4,800 vials on hand in NC</p>	<p><b>Keep frozen</b> at -25°C to -15°C (-13°F to +5°F).</p> <p>Once thawed, the vaccine may be kept at +2°C to +8°C (+36°F to +46°F) for <b>8 weeks</b></p> <p>Once punctured, vial must be used within 8 hours</p>	<p>Live attenuated virus vaccine; <b>non-replicating</b> modified vaccinia Ankara-Bavarian Nordic (MVA-BN)</p> <p><b>Ships frozen from SNS</b> Can transport refrigerated for immediate/short term use</p> <p><b>Single dose vials*</b>; SNS does not provide ancillary supplies</p>

\* Vials are single dose for subcutaneous injection (0.5 mL). Intradermal administration allows up to 5 doses per vial

# Current Vaccine Eligibility Criteria

- Anyone who had close contact in the past two weeks with someone who has been diagnosed with monkeypox; or
- Gay, bisexual, or other men who have sex with men, or transgender individuals, who are sexually active; or
- People who have had sexual contact with gay, bisexual, or other men who have sex with men, or transgender individuals in the past 90 days; or
- People living with HIV, or taking medication to prevent HIV (PrEP), or who were diagnosed with syphilis in the past 90 days.
- Certain health care, laboratory, and public health response team members

# Monkeypox Vaccine: Equity Considerations

- Tracking case and vaccination data (including race and ethnicity)
- In North Carolina, **70% of cases** were in Black or African American individuals, yet this group has received **27% of vaccines. Nationally, about 9% of vaccine doses** have gone to Black or African American individuals.
- Considerations for access to testing, vaccination and treatment:
  - Access to healthcare
  - Transportation
  - Cost
  - Stigma / Anonymity
- NCDHHS is working with all levels of government together in partnership with community organizations to remove disparities in monkeypox cases and vaccinations.
- Extensive communication, town halls and coordination with LGBTQ+ focused CBOs, HBCUs, HIV and other STI care providers, other community partners to ensure awareness, low-barrier access.
- Local vaccine equity events

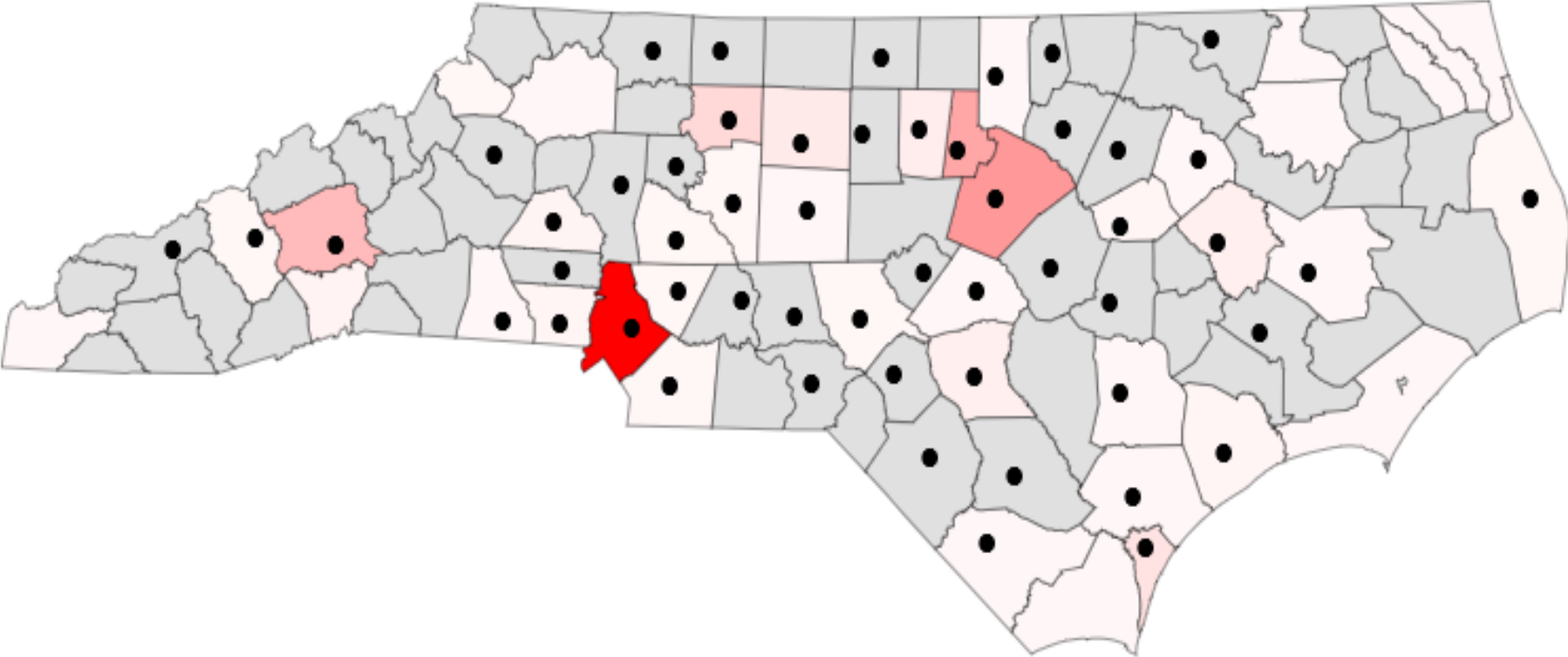
# VACCINE ADMINISTRATION DETAILS

Sex	Percentage:
Female	6%
Male	85%
Unknown	9%
Race	Percentage:
American Indian or Alaska Native	<1%
Asian	3%
Black or African-American	27%
Native Hawaiian or Other Pacific Islander	<1%
Other Race	4%
Prefer not to answer	3%
Unknown	<1%
White	62%
Ethnicity	Percentage:
Hispanic or Latino	9%
Not Hispanic or Latino	87%
Prefer not to answer	3%
Unknown	<1%
Age Breakdown	Percentage:
0-17	<1%
18-29	26%
30-49	49%
50+	24%

<b>Total Administrations</b>	18,577
<b>Persons Immunized</b>	12,275
<b>One Dose</b>	6059 (49%)
<b>Two Dose</b>	6126 (51%)
<b>Total Vaccinating Providers</b>	80
<b>Counties with Administrations</b>	45

# VACCINE ADMINISTRATION DETAILS

JYNNEOS Doses Administered as of 9/7/2022



# Treatment

# Treatment

- Tecovirimat (TPOXX) is available through strategic national stockpile
- Available at no cost to patients
- NCDHHS is working with local health departments and clinicians to ensure rapid access



# Equity, Communications and Outreach

# Communications and Outreach

**LEARN the facts.** Anyone can get monkeypox. It spreads mostly through close skin-to-skin contact.

**LOOK for a rash.** Get new rashes, lesions or sores checked by a health care provider. Talk with your partner about any monkeypox symptoms.

**LOCATE testing and vaccines for yourself or your community.**

- There is no limit on testing. Talk to your doctor or local health department.
- Limited vaccine supply is prioritized for those currently most at risk, and the communities where the virus is spreading.



**For more info, testing and vaccine locations:**  
[ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)



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Cover Photos: Centers for Disease Control and Prevention, National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of High-Consequence Pathogens and Pathology (DHCPP), [www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html](https://www.cdc.gov/poxvirus/monkeypox/clinicians/clinical-recognition.html) • NHS England High Consequence Infectious Diseases Network, [www.gov.uk/government/news/ukhsa-latest-findings-into-monkeypox-outbreak](https://www.gov.uk/government/news/ukhsa-latest-findings-into-monkeypox-outbreak), The National Archives, contains public sector information licensed under the Open Government Licence v3.0.



**Monkeypox: Get Checked.  
Get Tested. Get Vaccinated, if eligible.**



**Everyone can do their part to control the spread: We are in this together.**

# Communications – Pocket Card

**LEARN the facts:** Anyone can get monkeypox. It spreads mostly through close skin-to-skin contact.

**Examples of Monkeypox Exposure by contact with someone who has the virus**

## HIGHEST EXPOSURE:

- Bare skin-to-skin contact with infectious rash, scabs or bodily fluids
- Sexual contact
- Other intimate skin-to-skin contact: such as kissing, massage or cuddling

## SOME EXPOSURE:

- Crowds where people aren't wearing much clothing with a lot of skin-to-skin contact
- Sharing drinks, utensils, cigarettes, vapes, pipes, etc.
- Sharing towels, bed linens, or other personal items
- Exposure to respiratory droplets through prolonged face-to-face contact with no mask use

## UNLIKELY EXPOSURE:

- Crowds where people are mostly clothed, not much skin-to-skin contact
- Shaking hands with someone with no visible rash
- Shopping at the grocery store or mall
- Traveling by bus, train or plane or using public restrooms
- Trying on clothing at a store

**LOOK for a rash:** Get new rashes, lesions or sores checked by a health care provider. Talk with your partner about any monkeypox symptoms and be aware of any new or unexplained rash or lesion on either of your bodies, including the mouth, genitals and anus.



**LOCATE testing and vaccines for yourself, or your community:** There is no limit on testing. Talk to your doctor or local health department: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)

Vaccine is available at local health departments and clinics. Find out if you are eligible: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)



Everyone can do their part to control the spread: We are in this together. Learn more: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)

\*Photos used with permission.

# Communications – Social Media



## Love yourself.

Practicing safer sex can lower your risk of exposure to monkeypox and sexually transmitted infections.

Learn. Look. Locate.



Learn More: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)



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## Take care of YOU!

- Monkeypox can spread during sex.
- Learn how to lower your risk.

Learn. Look. Locate.



Learn More: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)



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- Learn how to lower your risk.

Learn. Look. Locate.



Learn More: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)



Condoms can lower your risk of exposure to monkeypox and sexually transmitted infections.

Learn. Look. Locate.



Learn More: [ncdhhs.gov/monkeypox](https://www.ncdhhs.gov/monkeypox)

# Communications – Ad Campaign

Worried about  
a rash that  
looks like  
monkeypox?



# Key Messages

## Current messages

- Monkeypox spreads mostly through close skin-to-skin contact.
- Anyone can get monkeypox. Data now show nearly all cases are in men who have sex with men.
  - While nearly 70% of cases are in Black men, Black North Carolinians are receiving about a quarter of the vaccinations.

## Learn. Look. Locate.

- LEARN the facts. Anyone can get monkeypox. It spreads mostly through close skin-to-skin contact.
- LOOK for a rash. Get new rashes, lesions, or sores checked by a health care provider. Talk with your partner about any monkeypox symptoms.
- LOCATE testing and vaccines for yourself or your community.
  - There is plenty of testing available.
  - Vaccine criteria and locations are linked online.
  - Appointments and vaccines are confidential.

# Challenges

- The same data is seen as both stigmatizing and necessary
- Meeting people where they are requires multiple messages and channels
- Limited resources



# More Info and Guidance

- **North Carolina:** [www.ncdhhs.gov/monkeypox](http://www.ncdhhs.gov/monkeypox)
- **US:** [www.cdc.gov/poxvirus/monkeypox](http://www.cdc.gov/poxvirus/monkeypox)