

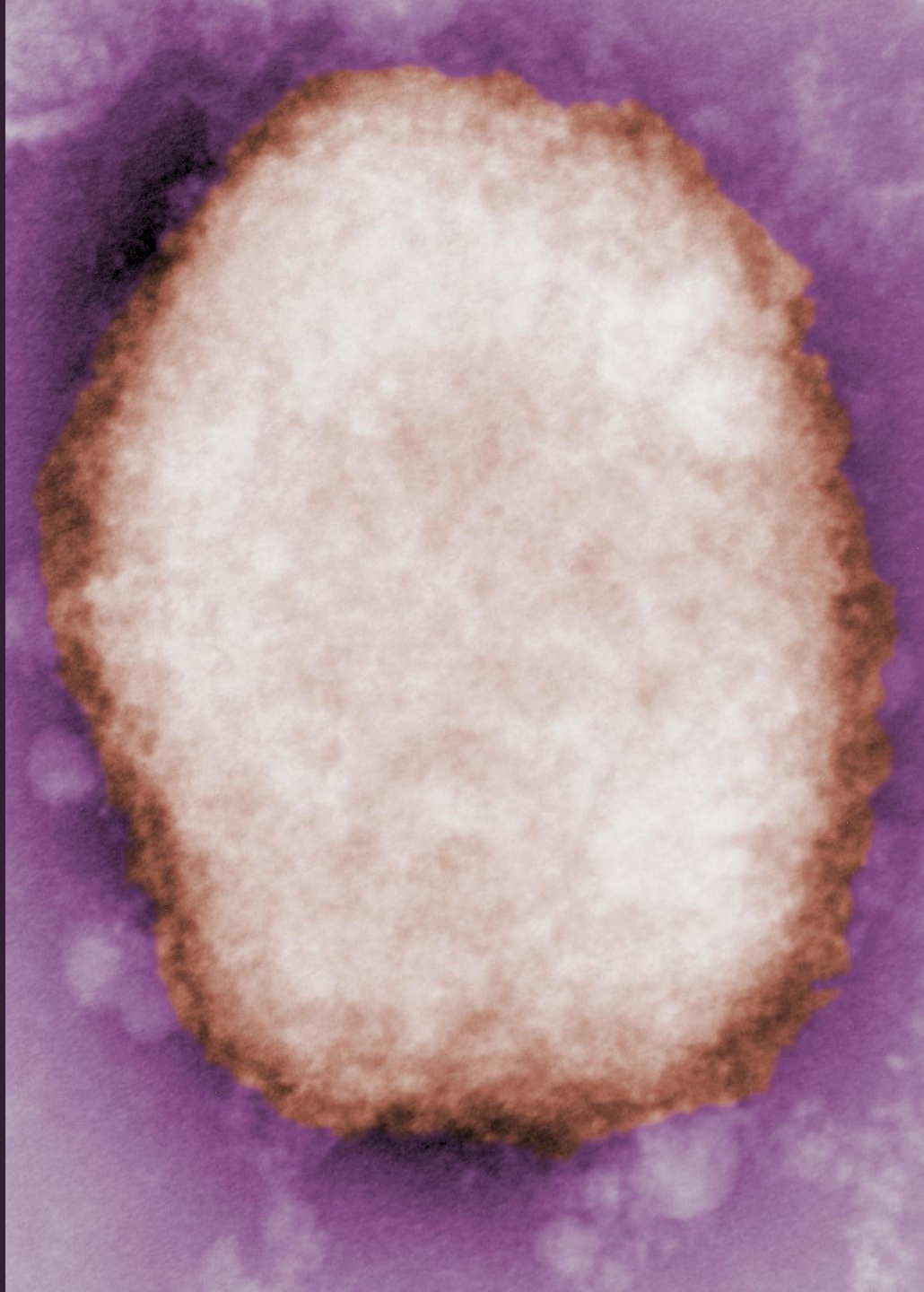
Monkeypox (MPX)

Tennessee Department
of Health

August 18, 2022

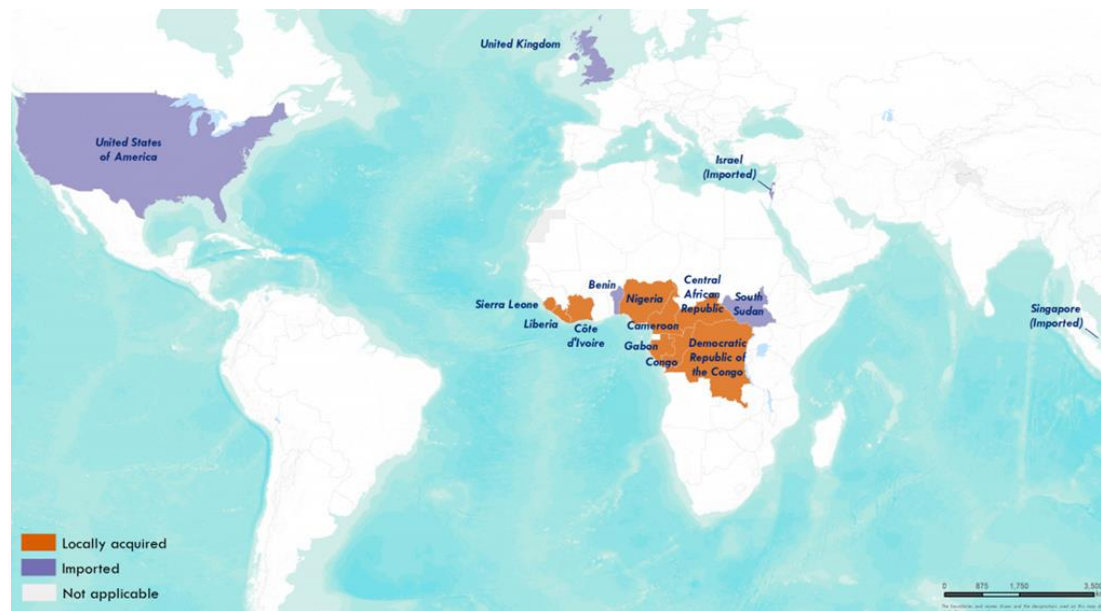
TN

Department of
Health

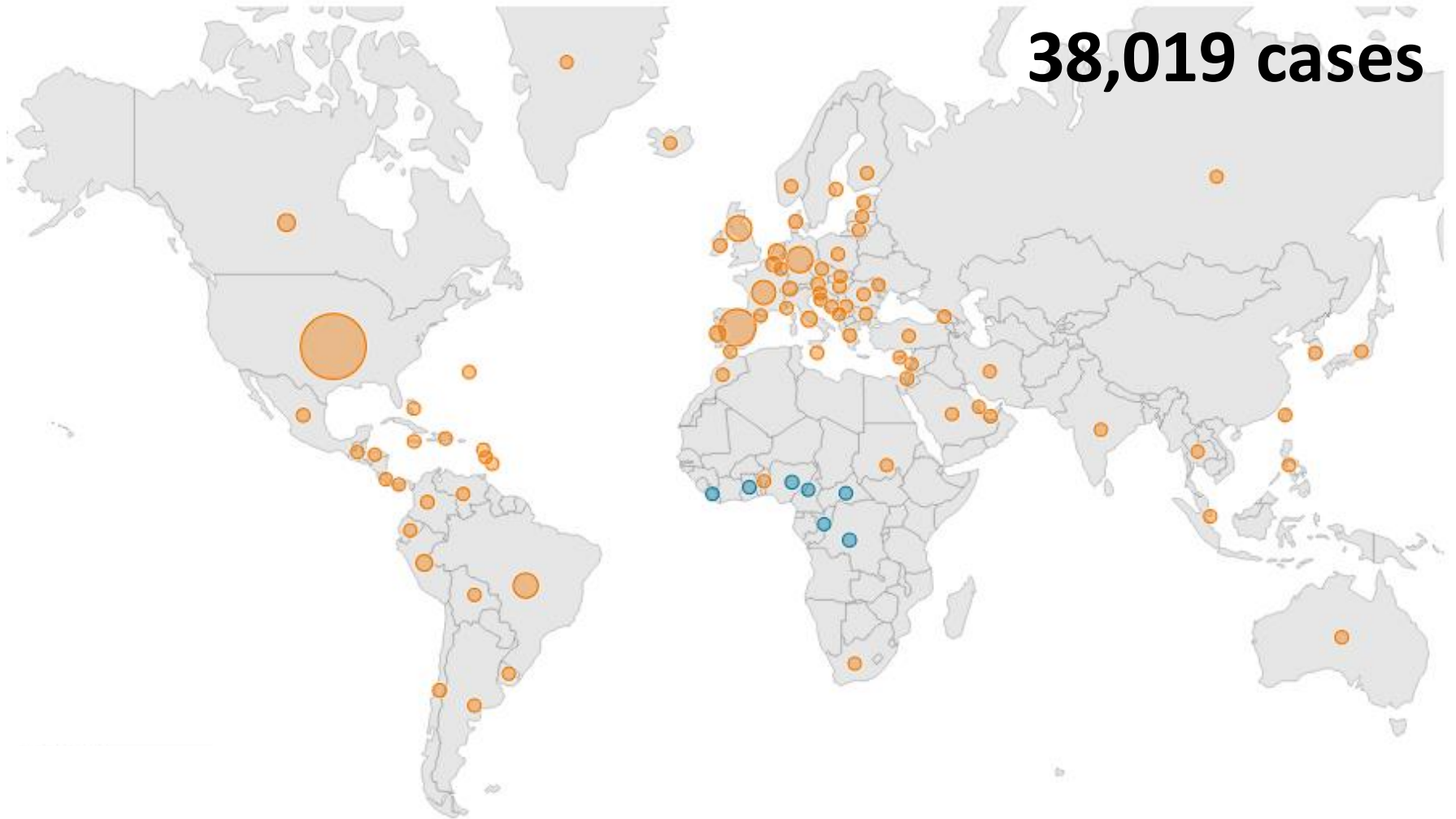


Background + What's in a name?

- **Orthopoxvirus** (cousin to *variola*/smallpox, cowpox, *vaccinia* virus)
- Discovered in 1958 – **outbreak of pox-like disease in 2 colonies of research monkeys**
- **Enzootic in central and west Africa**; exact animal reservoirs unknown (squirrels, Gambian pouched rats, non-human primates)
- 2003 Outbreak in US – linked to imported exotic animals from Ghana



Global Situation Summary: 17 August



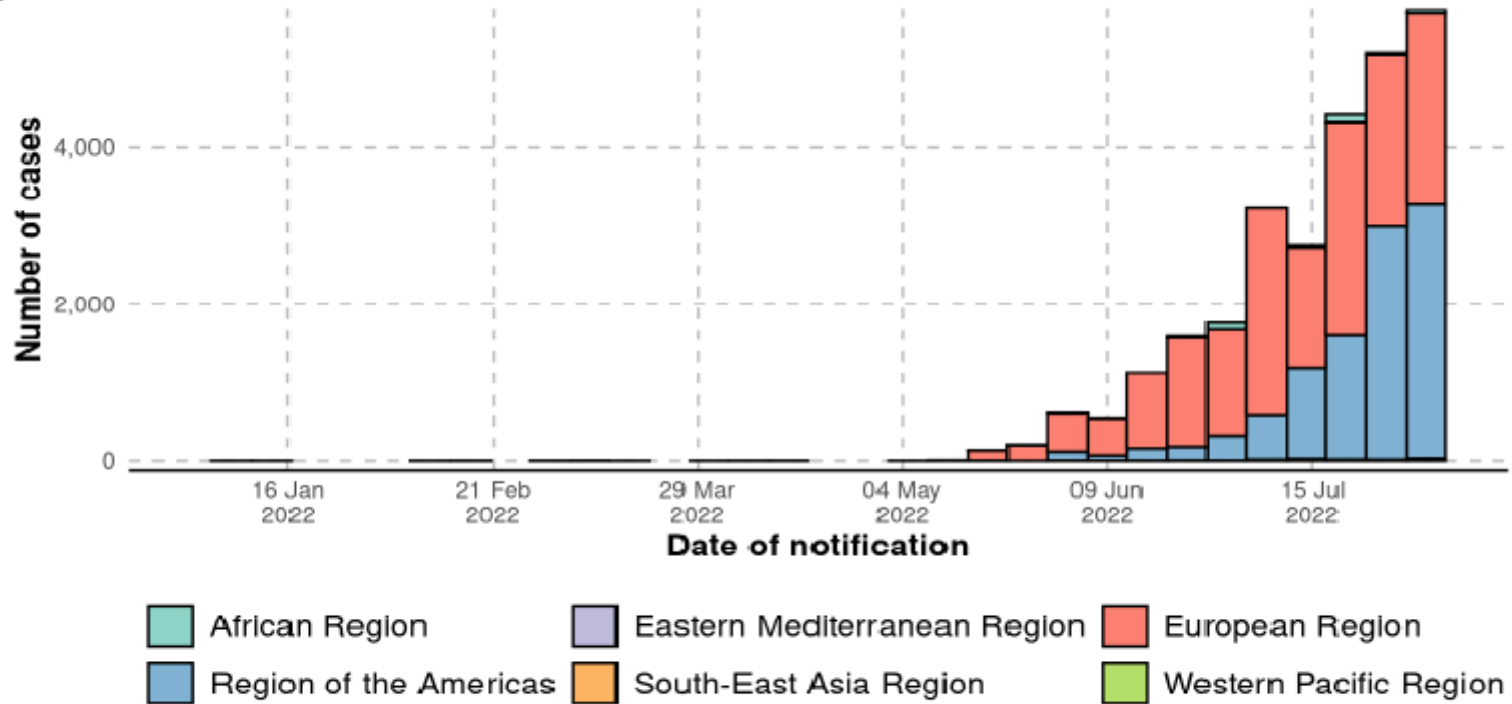
Has not historically reported MPX

Has historically reported MPX

TN

Global Situation Summary: 17 August

Figure 1. Epidemiological curve of weekly aggregated confirmed cases of monkeypox by region, from 1 January to 7 August 2022 17:00 CEST*



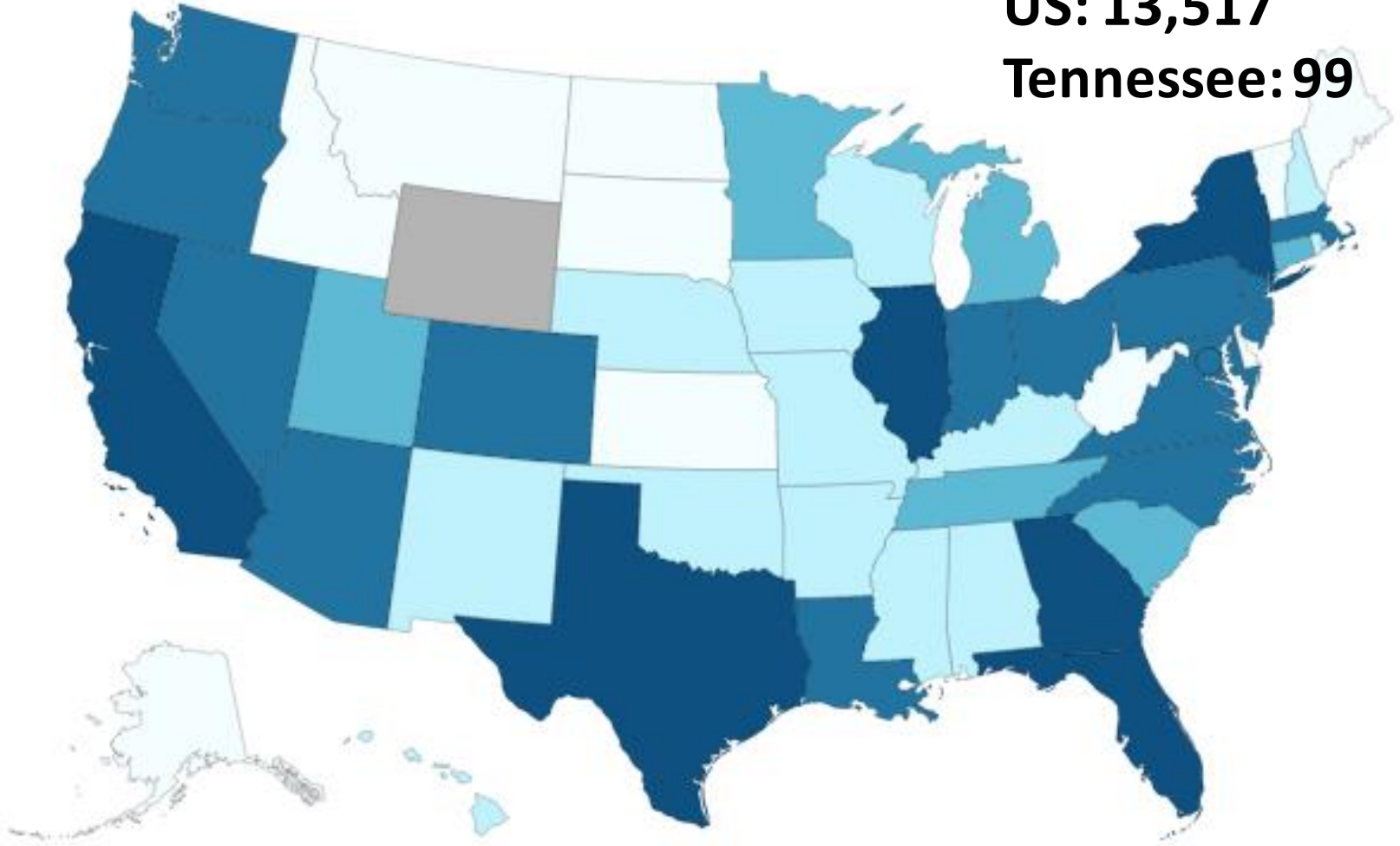
Source: WHO

*This figure shows aggregated weekly data, for epidemiological weeks ending on Sundays. Data on the current week, with incomplete data, will be presented in the next situation report.

Domestic Situation Summary: 17 August

US: 13,517

Tennessee: 99

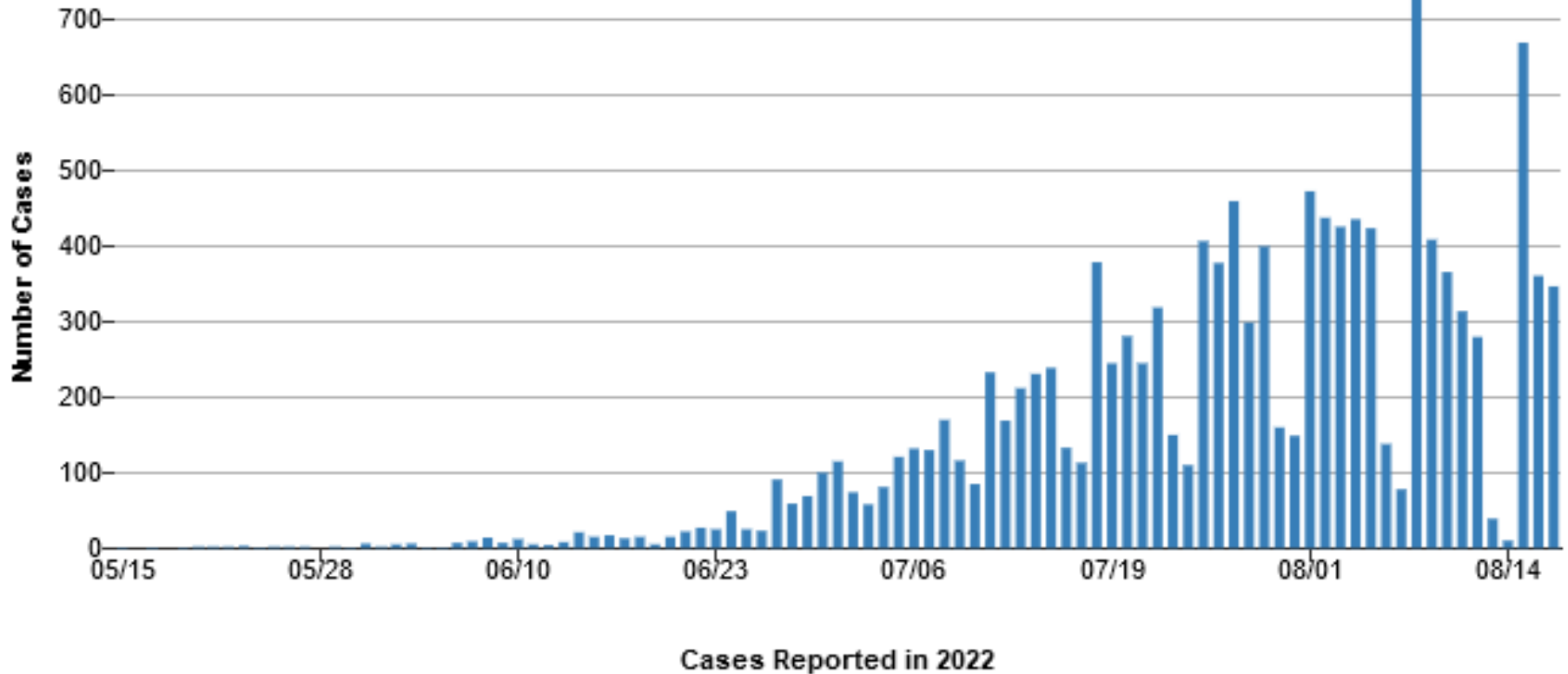


Territories

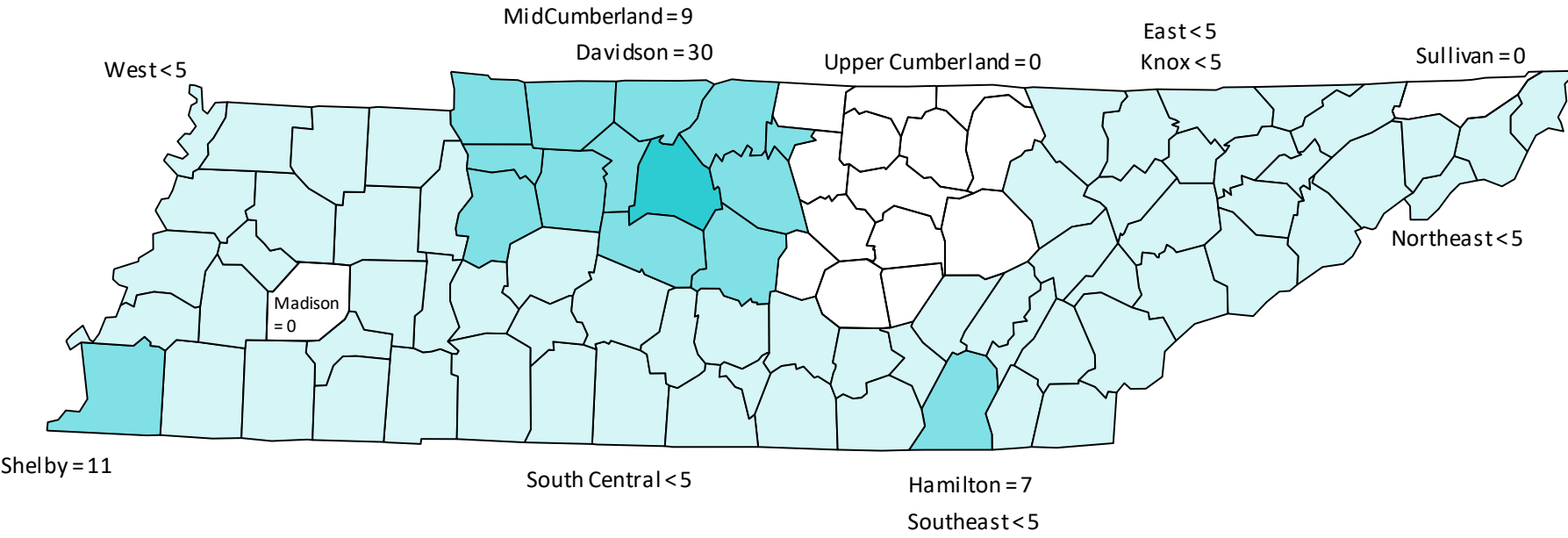
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Domestic Situation Summary: 17 August

U.S. Monkeypox Case Trends Reported to CDC

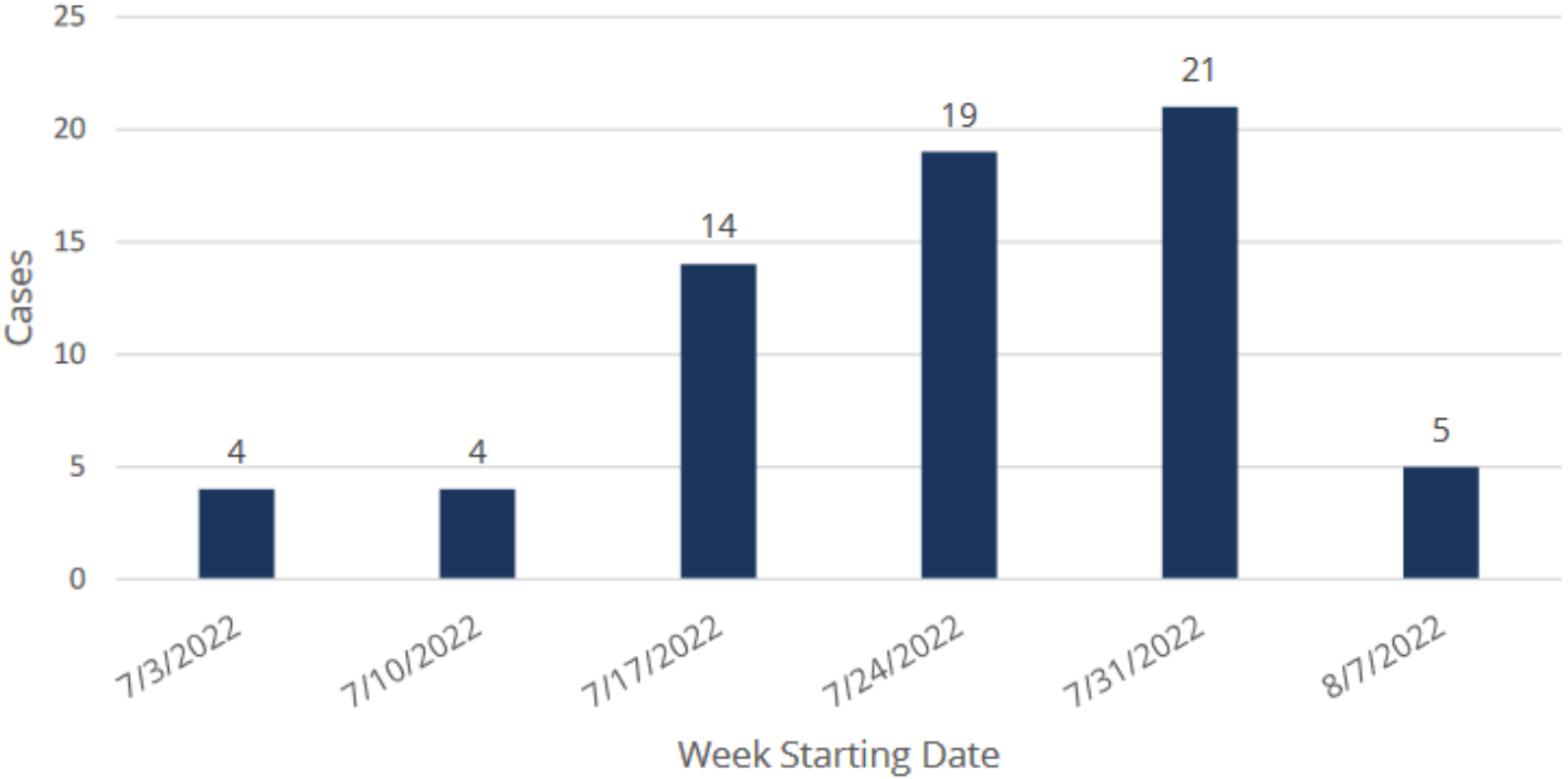


Tennessee Situation Summary: 11 August



Tennessee Situation Summary: 11 August

Monkeypox Cases by Week of Specimen Collection, Tennessee, 2022 (n = 67)



Epidemiologic Details - Tennessee

- **Tennessee (*as of 11 August*)**

- Median age: 35 years (20–62 years)

- Male sex at birth: 94%

- Race

- White: 45%

- Black: 43%

- UNK: 4%

- Ethnicity

- Hispanic/Latino: 13%

- Not Hispanic/Latino: 73%

- UNK: 13%

Epidemiologic Details - Tennessee

- **Tennessee (as of 11 August)**

- Median age: 35 years (20–62 years)

- Male sex at birth: 94%

- Race**

- White: 45%
- Black: 43%
- Other: 8%
- UNK: 4%

- TN Population**

- White: 77%
- Black: 17%
- Other: 6%

- TN HIV Cases (2020)**

- White: 30%
- Black: 59%
- Other: 11%

- Ethnicity**

- Hispanic/Latino: 13%
- Not Hispanic/Latino: 73%
- UNK: 13%

- TN Population**

- Hispanic/Latino: 6%
- Not Hispanic/Latino: 94%

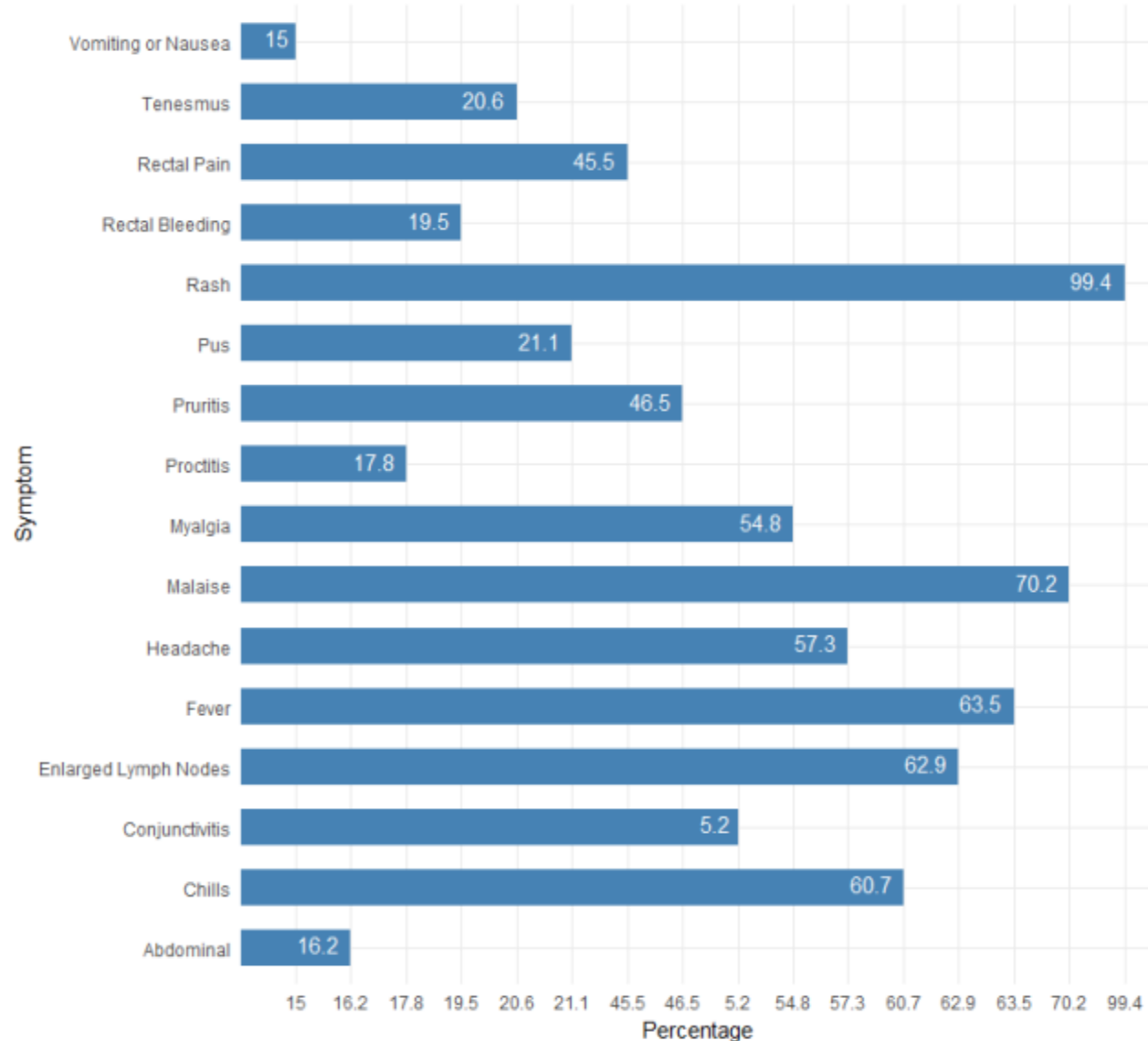
- TN HIV Cases (2020)**

- Hispanic/Latino: 7%
- Not Hispanic/Latino: 93%

Signs & Symptoms

- Rash (99%)
- Malaise (70%)
- Fever (64%)
- Lymphadenopathy (63%)

Illness typically lasts
2–4 weeks



Rash Details

- Lesions are **well circumscribed**, **deep seated**, and often develop **umbilication**.
- Often described as **painful** until the healing phase when they become itchy (crusts).
- **Progresses through stages:** macular, papular, vesicular, pustular (not necessarily simultaneously)



Transmission

Average incubation period: 6–13 days (5–21 days)

- 1. Direct contact** with bodily fluids (respiratory secretions) or monkeypox lesions or scabs
- 2. Indirect contact** with items that have been contaminated with fluids or sores, like clothing or bedding

Example activities through which MPX can spread:

- Prolonged face-to-face contact
- Intimate contact (sexual activity, hugging, massaging, kissing)
- Touching fabrics and objects during sex that were used by a person with monkeypox and that have not been disinfected



MPX Testing

Who should be tested? A person who presents with an otherwise unexplained rash.

Specimen Collection:

- **Direct swab of lesions** (consider 2 swabs from each lesion; max of 6)
- **Sterile, synthetic swab** (polyester, nylon, or Dacron) with plastic, wood, or thin aluminum shaft
- Place in a **sterile container** (no transport media required; VTM acceptable)

Test Specifics:

- **PCR test** (orthopoxvirus)
- **~4h test time in lab; TAT varies by laboratory**

In-Home Isolation

- Remain **isolated at home or another location for the duration of illness** (generally 2–4 weeks) - until **rash has fully resolved**, the scabs have fallen off, and a **fresh layer of intact skin has formed**.
 - **While symptomatic with a fever or any respiratory symptoms**, remain isolated and away from others unless it is necessary to see a healthcare provider or for an emergency.
 - Avoid close or physical contact with other people and animals.
 - Cover the lesions, wear a well-fitting mask and avoid public transportation when leaving the home as required for medical care or an emergency.
 - **While a rash persists but in the absence of a fever or respiratory symptoms**
 - Cover all parts of the rash with clothing, gloves, and/or bandages.
 - Wear a well-fitting mask to prevent the wearer from spreading oral and respiratory secretions when interacting with others until the rash and all other symptoms have resolved.

Persons Living with HIV

- Available international data from the current outbreak indicate **30-51% HIV prevalence** among persons with MPX for whom HIV status was known.
- Persons with **advanced and uncontrolled HIV might be at higher risk for severe or prolonged disease**. Therefore, prophylaxis after possible exposure (e.g., vaccination), medical treatment and close monitoring are a priority for this population.

Children and Adolescents

- At least **two cases of MPX have been identified in children** in the United States during the current outbreak.
- Limited pediatric data on infection with the Congo Basin clade of MPX virus suggest **increased risk of severe disease in children younger than 8 years of age**.
 - Rare complications of MPX include abscess, airway obstruction due to severe lymphadenopathy, cellulitis, encephalitis, keratitis, pneumonia, and sepsis.
 - However, the West African clade of MPX virus involved in the current outbreak typically causes less severe disease than the Congo Basin clade.

People Who are Pregnant or Breastfeeding

- It is **unknown if pregnant people are more susceptible** to acquiring MPX virus infection **or if illness is more severe** during pregnancy.
- **MPX virus can be transmitted to the fetus during pregnancy and to the newborn by close contact during and after birth.** While most adults with MPX virus infection experience self-limiting infection and recover within 2–4 weeks, **pregnant and breastfeeding people should be prioritized for medical treatment.**

Treatment

- TPOXX
- Smallpox treatment
- Investigational approval for MPX
- Who should be considered for treatment?
 - With severe disease (e.g., hemorrhagic disease, confluent lesions, sepsis, encephalitis, or other conditions requiring hospitalization)
 - Those are at high risk of severe disease:
 - People with immunocompromising conditions
 - Pediatric populations, particularly patients younger than 8 years of age
 - Pregnant or breastfeeding women
 - People with a history or presence of skin conditions
 - People with one or more complication
 - People lesions near/in eyes, mouth, or other anatomic areas where *Monkeypox virus* infection might constitute a special hazard (e.g., the genitals or anus)

Vaccine

- **2 products, both licensed for smallpox**
- **ACAM2000**
 - Huge supply
 - Live, replicating virus
 - Not indicated for many
- **JYNNEOS**
 - Limited supply
 - Live, nonreplicating virus
 - Not as many contraindications
 - 2 doses, 28 days apart
- **Can be used BEFORE exposure and AFTER exposure**
- **Who is eligible in Tennessee?**
 - Individuals with a known contact/exposure to MPX identified through public health investigation
 - Individuals who *might* have been exposed to MPX in the past 14 days
 - Gay, bisexual, or other men who have sex with men (MSM), and/or transgender, gender-nonconforming or gender non-binary individuals who report any of the following in the last 90 days:
 - Having multiple sex partners or anonymous sex
 - Being diagnosed with a sexually transmitted infection (STI)
 - Receiving medications to prevent HIV infection (HIV PrEP)

Questions?

<https://www.tn.gov/health/cedep/reportable-diseases/monkeypox.html>

TN

Department of
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