

**Florida
HEALTH**

Mpox Presentation

Alvaro Mejia-Echeverry, MD, MPH

Epidemiology

Florida Department of Health in Miami-Dade County

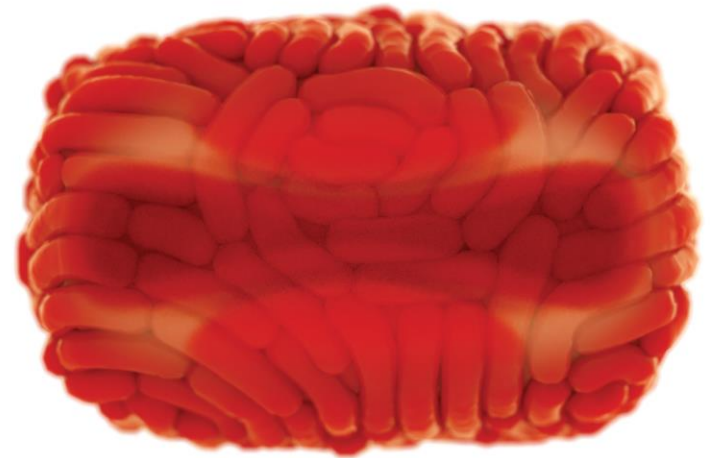
Ph. 305-470-5660

Mpox Virus

Mpox is a viral zoonosis (a virus transmitted to humans from animals) with symptoms similar to those seen in the past in smallpox patients, although it is clinically less severe. With the eradication of smallpox in 1980 and subsequent cessation of smallpox vaccination, monkeypox has emerged as the most important orthopoxvirus for public health.

Pathogen

Mpox virus is an enveloped double-stranded DNA virus that belongs to the *Orthopoxvirus* genus of the *Poxviridae* family.



This illustration depicts a single red-colored mpox virion on a white background, with its intact exterior coat composed of surface filaments, sometimes seen in a whorled pattern, and also showing the interior, dumbbell-shaped core.

Source: CDC PHIL

Mpox Virus

History:

Mpox was discovered in 1958 when two outbreaks of a pox-like disease occurred in colonies of monkeys kept for research. Despite being named “monkeypox,” the source of the disease remains unknown. However, African rodents and non-human primates (like monkeys) might harbor the virus and infect people.

Natural host of Mpox Virus

Various animal species have been identified as susceptible to monkeypox virus. This includes rope squirrels, tree squirrels, Gambian pouched rats, dormice, non-human primates and other species.



Source: World Health Organization

Mpox Virus

Name Change

When the outbreak of monkeypox expanded in 2022, racist and stigmatizing language online, in other settings and in some communities was observed and reported to WHO. In several meetings, public and private, a number of individuals and countries raised concerns and asked WHO to propose a way forward to change the name.

Following a series of consultations with global experts, on November 28th, 2022, the World Health Organization began using a new preferred term “mpox” as a synonym for monkeypox. Both names will be used simultaneously for one year while “monkeypox” is phased out.

Transmission

Mpox can spread to anyone through close, personal, often skin-to-skin contact, including:

- Direct contact with mpox rash and scabs from a person with mpox, as well as contact with their saliva, upper respiratory secretions (snot, mucus), and areas around the anus, rectum, or vagina

This direct contact can happen during intimate contact, including:

- Oral, anal, or vaginal sex, or touching the genitals (penis, testicles, labia, and vagina) or anus of a person with mpox
- Hugging, massage, and kissing
- Prolonged face-to-face contact

Source: World Health Organization

Transmission

Pregnancy

Mpox virus can be spread to the fetus during pregnancy or to the newborn by close contact during and after birth.

Infected Animals

The most common route for transmission of mpox from infected animals to people is direct contact with the infectious rash, scabs, crusts or fluids from sores, saliva, or infected bodily fluids, including respiratory secretions. Urine and feces that contain infectious viral particles may also be a source of infection.

It is possible that people with mpox can spread it to animals through close contact, including petting, cuddling, hugging, kissing, licking, sharing sleeping areas, and sharing food.



Transmission

A person with mpox can spread it to others from the time symptoms start until the rash has fully healed and a fresh layer of skin has formed. As of February 2023, new data show that some people can spread mpox to others from one to four days before their symptoms appear. It's not clear how many people this has affected during the current outbreak.

There is currently no evidence showing that people who never develop symptoms have spread the virus to someone else.

In the current mpox outbreak, the virus is spreading primarily through sexual contact; however, infections have occurred through other exposures, including non-sexual contact with infectious lesions and from contaminated instruments in clinic settings.

Mpox Symptoms

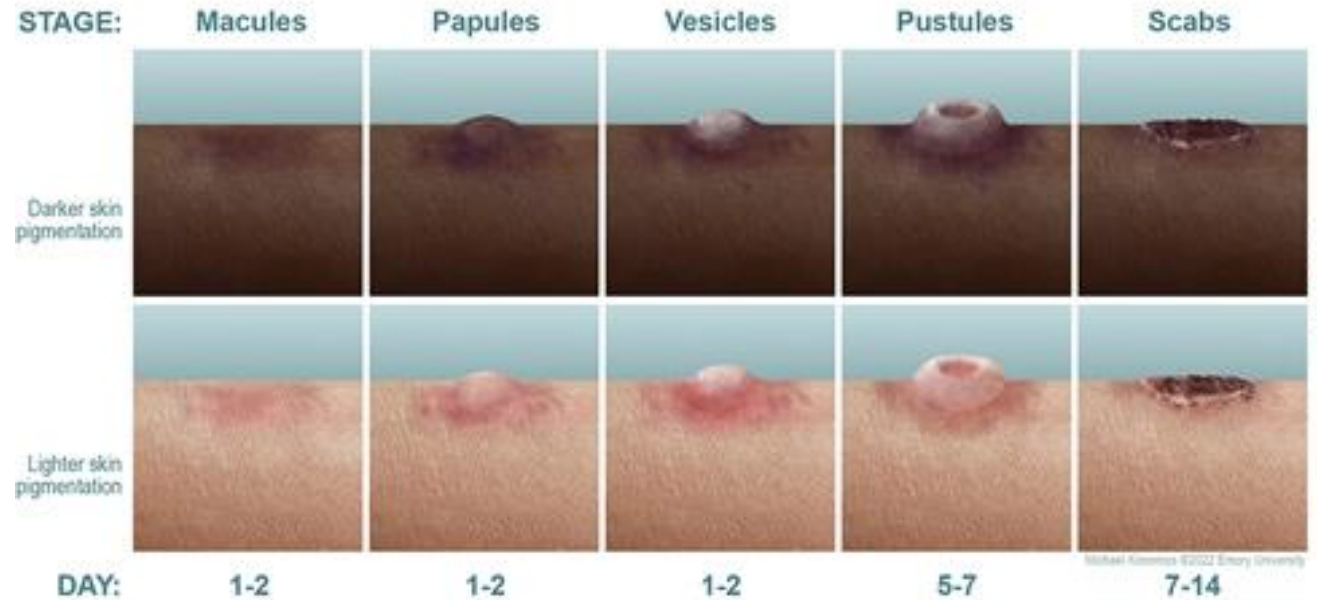
Rash

May be located on hands, feet, chest, face, or mouth or near the genitals, including penis, testicles, labia, and vagina, and anus.

Incubation period: 3-17 days.

During this time, a person does not have symptoms and may feel fine.

- The rash will go through several stages, including scabs, before healing.
- The rash can initially look like pimples or blisters and may be painful or itchy.



Source: CDC

Mpox Symptoms

Other symptoms of mpox can include:

- Fever
- Chills
- Swollen lymph nodes
- Exhaustion
- Muscle aches and backache
- Headache
- Respiratory symptoms (e.g., sore throat, nasal congestion, or cough)



2022 Mpox Outbreak

Global Cases:
86,231

Source: CDC
Data as of March 01 2023

Locations with cases

110

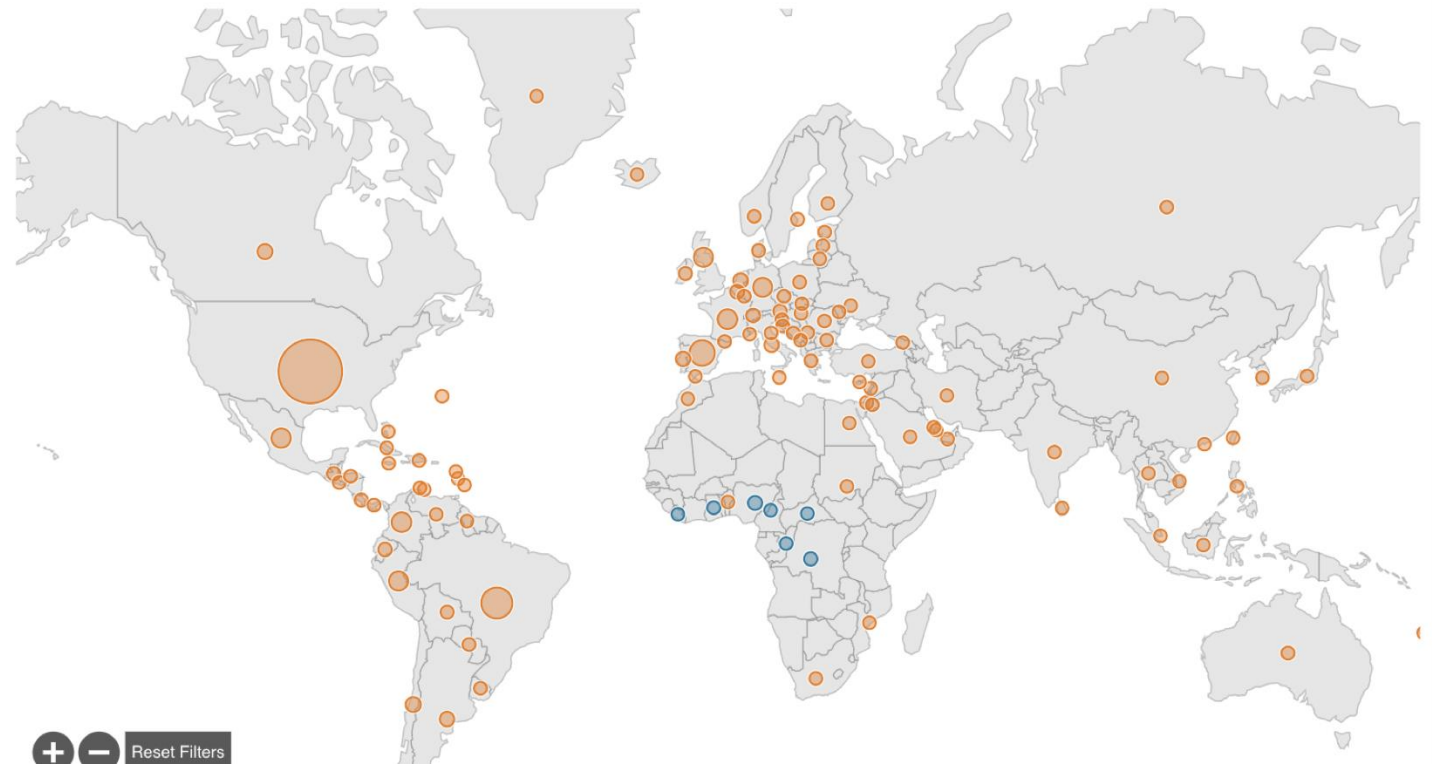
Total

103

Has not historically reported mpox

7

Has historically reported mpox

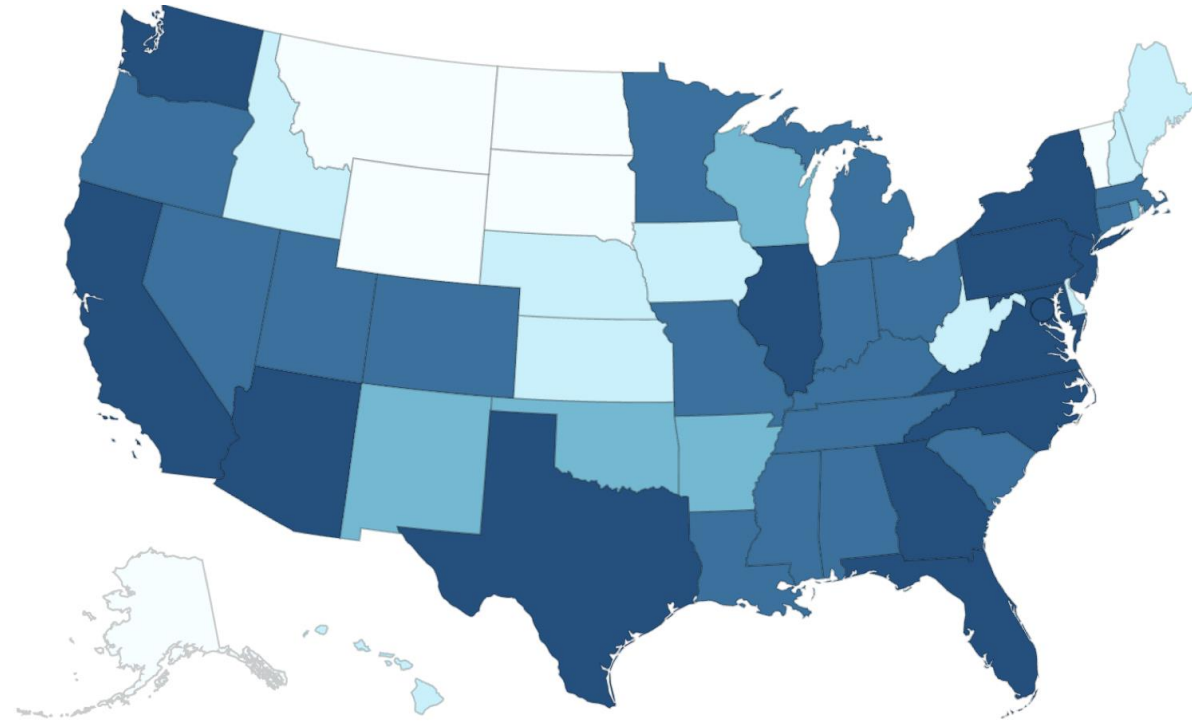


2022 Mpox Outbreak

U.S. Cases: 30,225

Deaths: 38

Florida: 2,875



Territories **PR**



Legend

○ 1 to 10

● 51 to 100

● >500

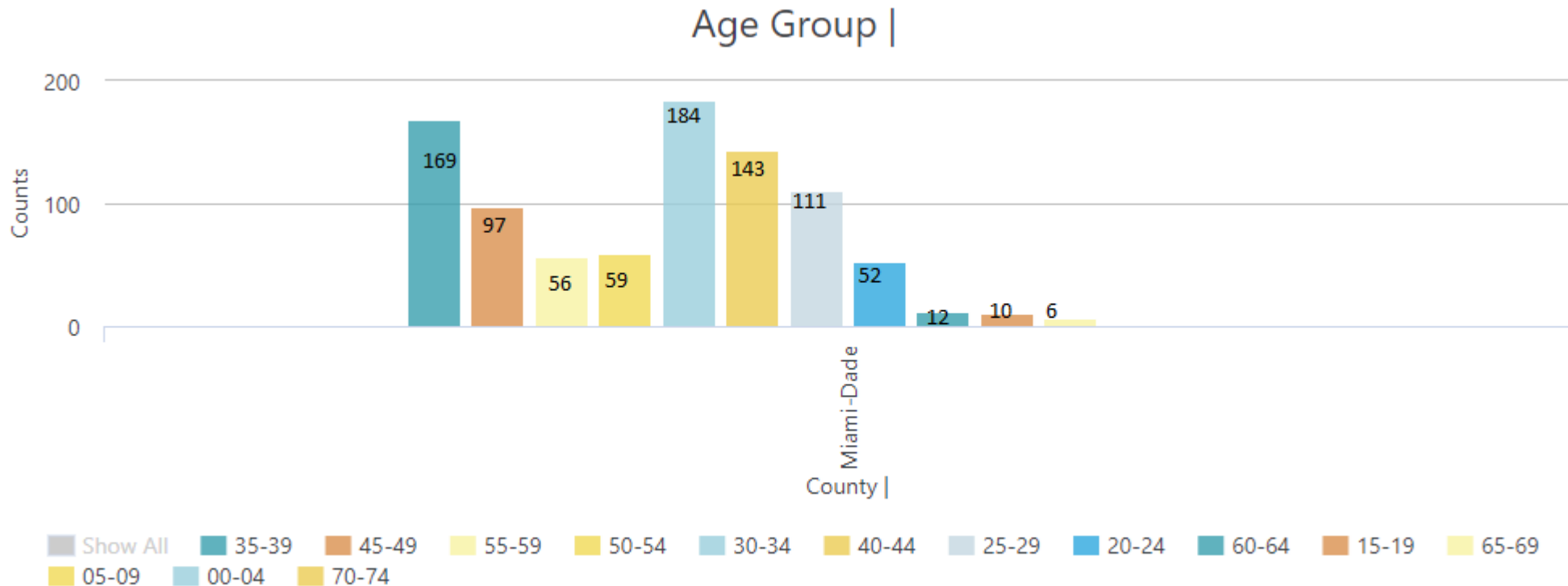
● 11 to 50

● 101 to 500

Source: CDC

Data as of March 01 2023

Mpox Cases in Miami-Dade County



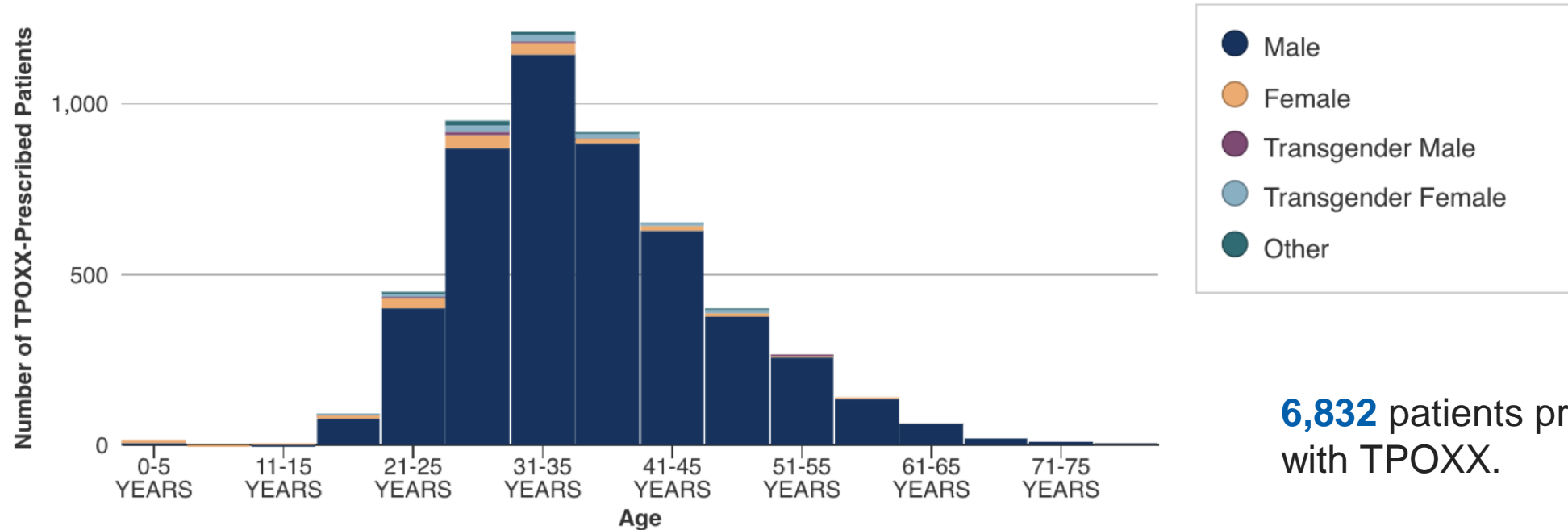
Powered by the Florida Department of Health, Bureau of Epidemiology

Source: FL Charts
Data as of March 03 2023

Total Cases in Miami-Dade 2022-2023: 905
Year 2022: Male 885 / Female 15
Year 2023: Male 2 / Female 3

Demographics of Patients Receiving TPOXX for Treatment of Mpox (United States)

Cumulative Number of TPOXX-prescribed Patients Reported to CDC: Age and Gender



6,832 patients prescribed or treated with TPOXX.

Data as of January 25th, 2023.

Per CDC website, this data will no longer be updated after 1/25/2023. These data may not reflect the overall population of patients who have been prescribed TPOXX since CDC did not receive forms for every patient treated with TPOXX. Some sections of the submitted forms may also be incomplete.

TPOXX Dispensed in Miami-Dade County

Name: Tecovirimat capsules 200mg (TPOXX)

Dose: 600 mg 2x per day. Orally for 14 days. If patient weighs between 40-119 Kg.

Dose: 600 mg 3x per day. Orally for 14 days. If patient weighs over 120 Kg.

Total bottles distributed: 851

Total bottles received: 886

Total bottles on hand: 35

Local facilities:

- Jackson Memorial
- Care Resource
- Baptist Main Hospital

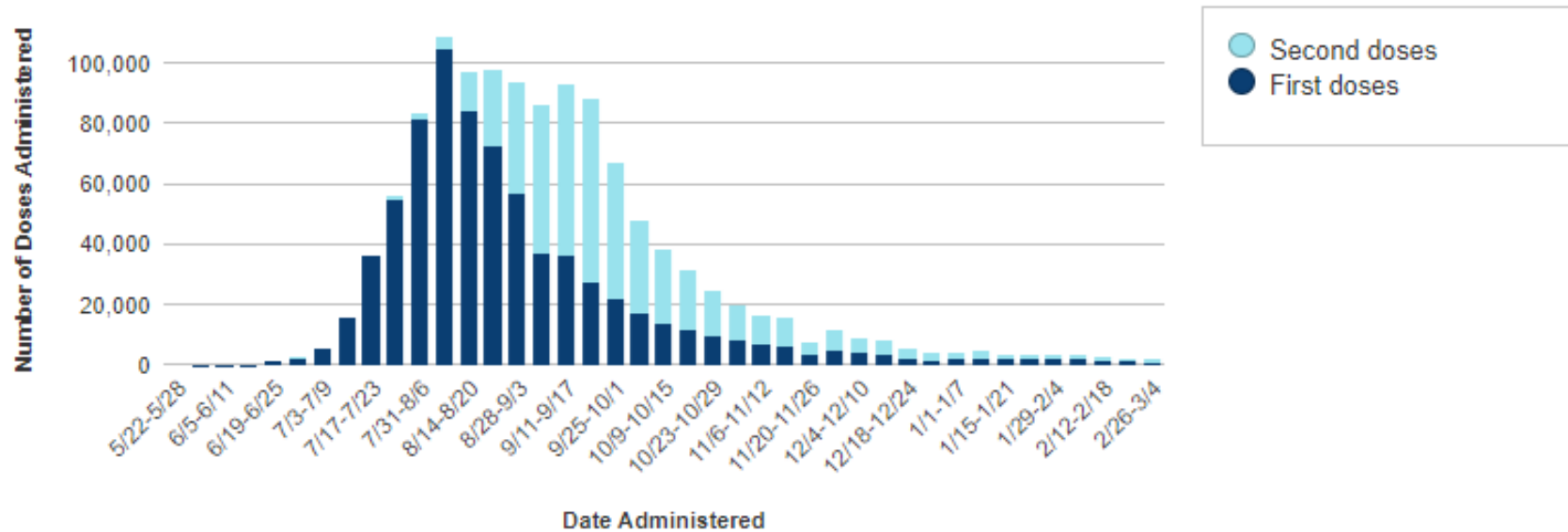
Mpox Vaccine Administration in the U.S.

Total Vaccine Doses Administered

1,201,210

Doses Administered in the 57 U.S. Jurisdictions Reporting Data as of March 7 2023.

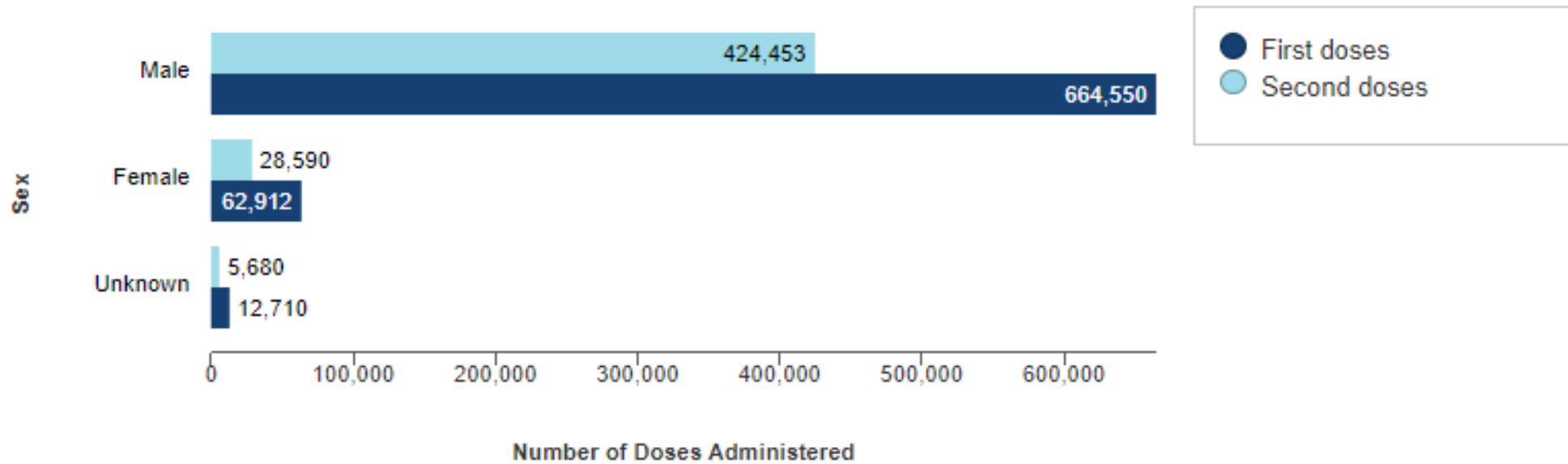
Total JYNNEOS Vaccine Second Doses and First Doses Reported to CDC



Source: CDC

JYNNEOS Vaccine Administration in the U.S.

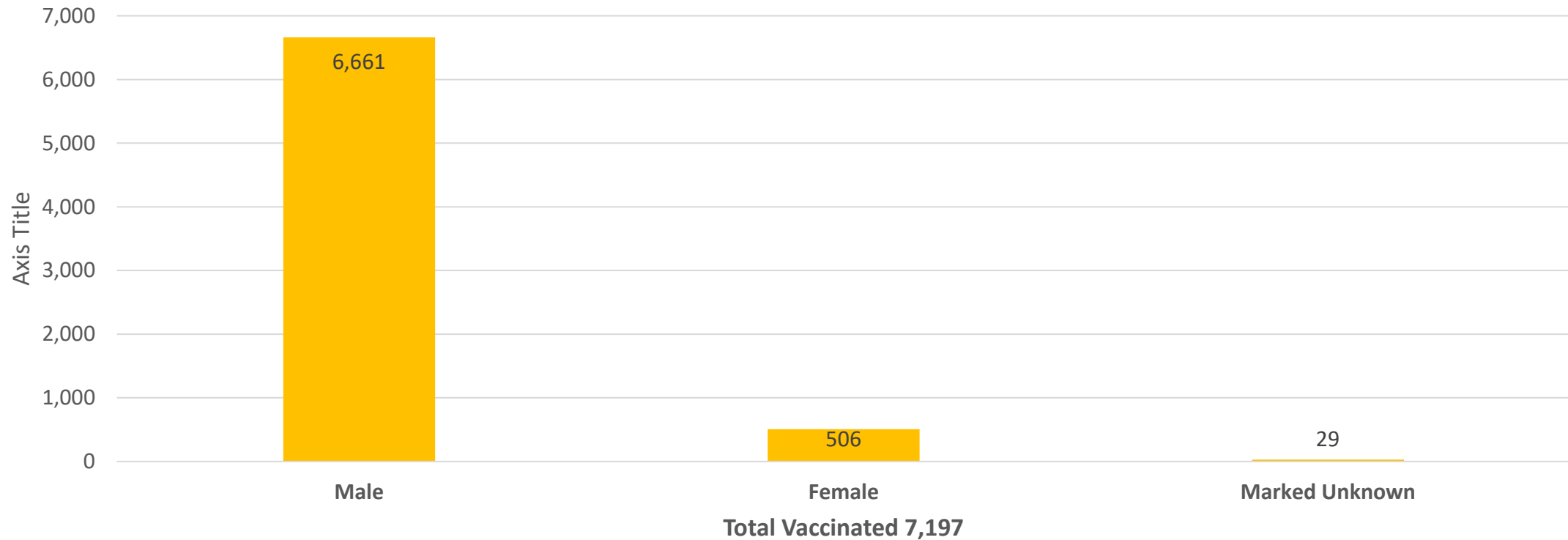
JYNNEOS Vaccine Doses Administered, by Sex



Source: CDC

JYNNEOS Vaccines Administered in Miami-Dade County

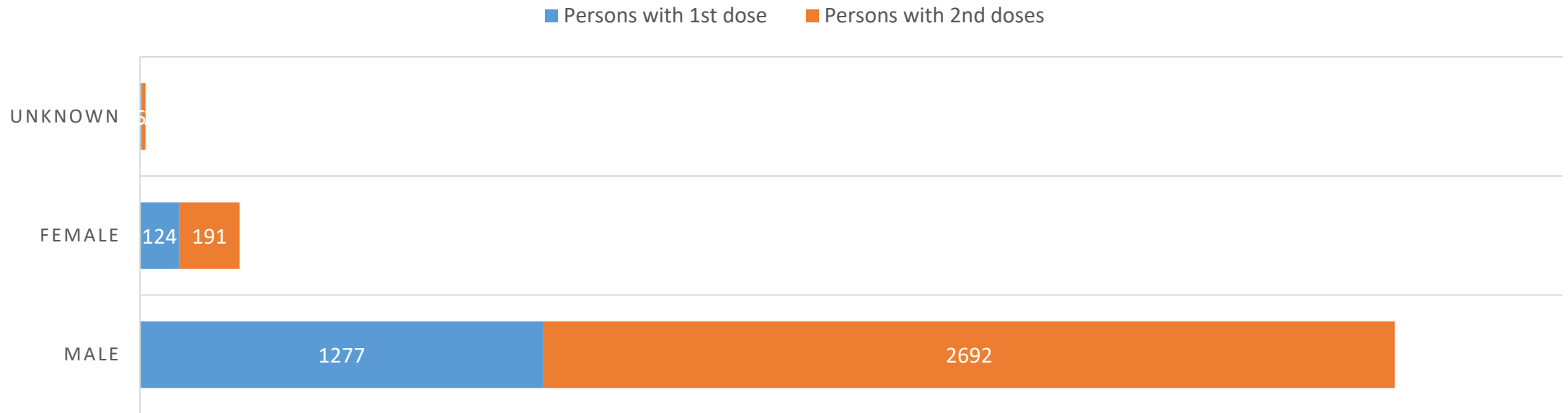
(June 22, 2022 - March 09, 2023)



Source: FL Shots

JYNNEOS Vaccines Administered in Miami-Dade County

LOCAL VACCINES ADMINISTERED, BY SEX



	Male	Female	Unknown
■ Persons with 1st dose	1277	124	5
■ Persons with 2nd doses	2692	191	12

Source: FL Shots

Case Definitions for Use in the 2022 Mpox Response

Suspect Case

- New characteristic rash* **OR**
- Meets one of the epidemiologic criteria and has a high clinical suspicion[†] for mpox

Probable Case

- No suspicion of other recent *Orthopoxvirus* exposure (e.g., *Vaccinia virus* in ACAM2000 vaccination) **AND** demonstration of the presence of
 - *Orthopoxvirus* DNA by polymerase chain reaction of a clinical specimen **OR**
 - *Orthopoxvirus* using immunohistochemical or electron microscopy testing methods **OR**
 - Demonstration of detectable levels of anti-orthopoxvirus IgM antibody during the period of 4 to 56 days after rash onset

Confirmed Case

- Demonstration of the presence of mpox virus DNA by polymerase chain reaction testing or Next-Generation sequencing of a clinical specimen **OR** isolation of mpox virus in culture from a clinical specimen

Source: CDC

Case Definitions for Use in the 2022 Mpox Response

Epidemiologic Criteria

Within 21 days of illness onset:

- Reports having contact with a person or people with a similar appearing rash or who received a diagnosis of confirmed or probable mpox **OR**
- Had close or intimate in-person contact with individuals in a social network experiencing mpox activity, this includes men who have sex with men (MSM) who meet partners through an online website, digital application (“app”), or social event (e.g., a bar or party) **OR**
- Traveled outside the US to a country with confirmed cases of mpox or where mpox virus is endemic **OR**
- Had contact with a dead or live wild animal or exotic pet that is an African endemic species or used a product derived from such animals (e.g., game meat, creams, lotions, powders, etc.)

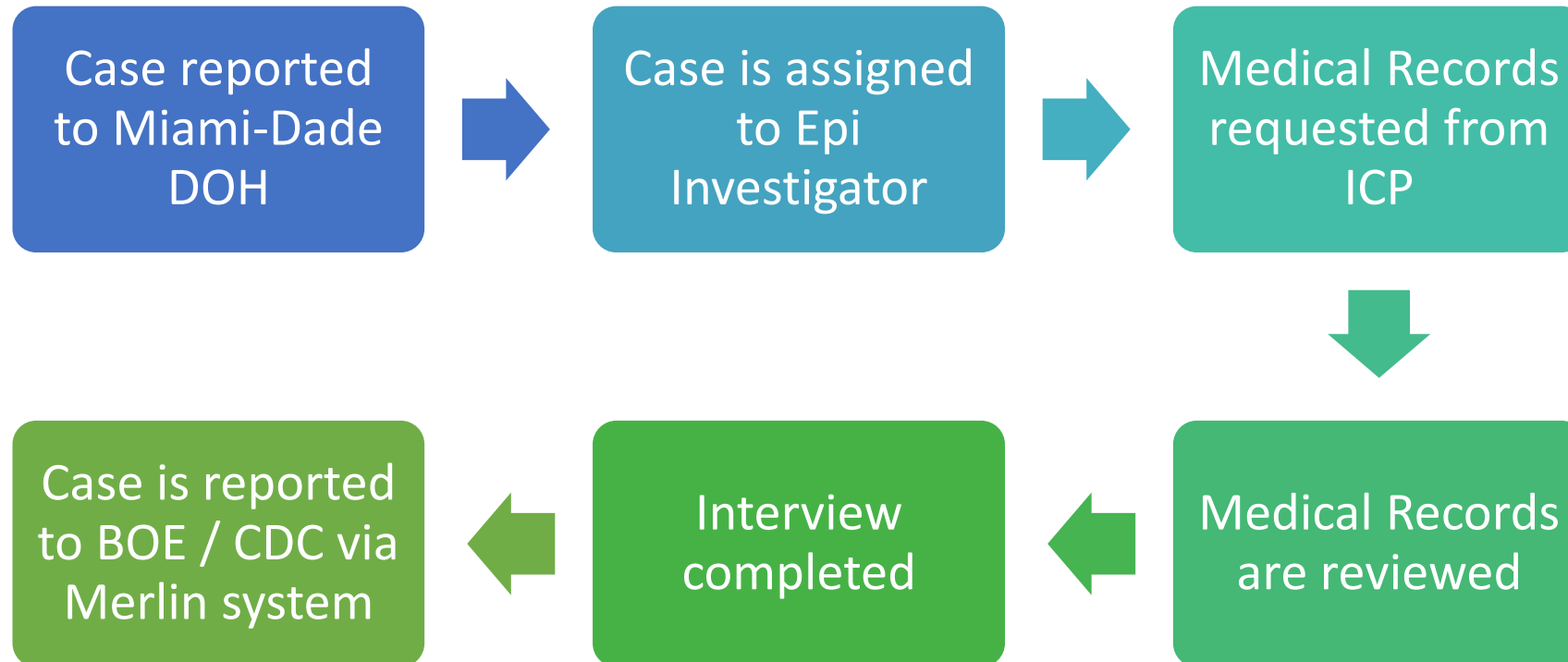
Exclusion Criteria

A case may be excluded as a suspect, probable, or confirmed case if:

- An alternative diagnosis* can fully explain the illness **OR**
- An individual with symptoms consistent with mpox does not develop a rash within 5 days of illness onset **OR**
- A case where high-quality specimens do not demonstrate the presence of *Orthopoxvirus* or mpox virus or antibodies to orthopoxvirus

Source: CDC

Case Investigation Process



DOH Notified

**Florida
HEALTH**

Mpox Presentation

Alvaro Mejia-Echeverry, MD, MPH

Epidemiology

Florida Department of Health in Miami-Dade County

Ph. 305-470-5660