

# Comparing the Epidemiology and Clinical Presentation of Monkeypox in Nigeria and the Global North

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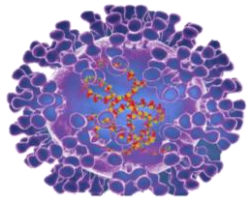
Niger Delta University/Niger Delta University Teaching Hospital, Okolobiri

Bayelsa

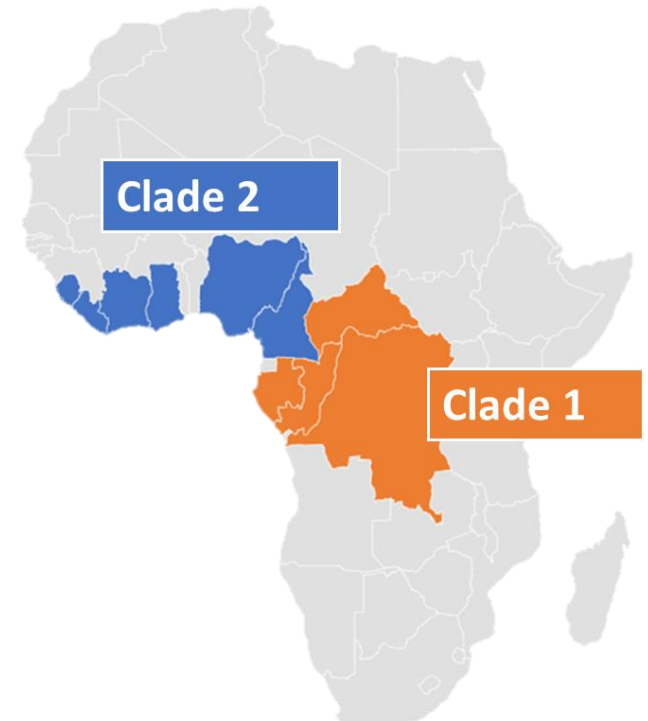
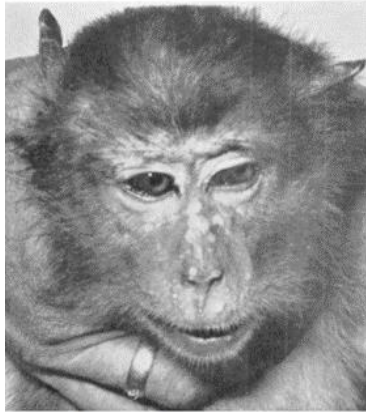
# Disclosure

- President, Nigeria Infectious Diseases Society (Unpaid)

# The monkeypox virus



DNA virus  
Double stranded  
Orthopoxvirus



Clades of monkeypox virus



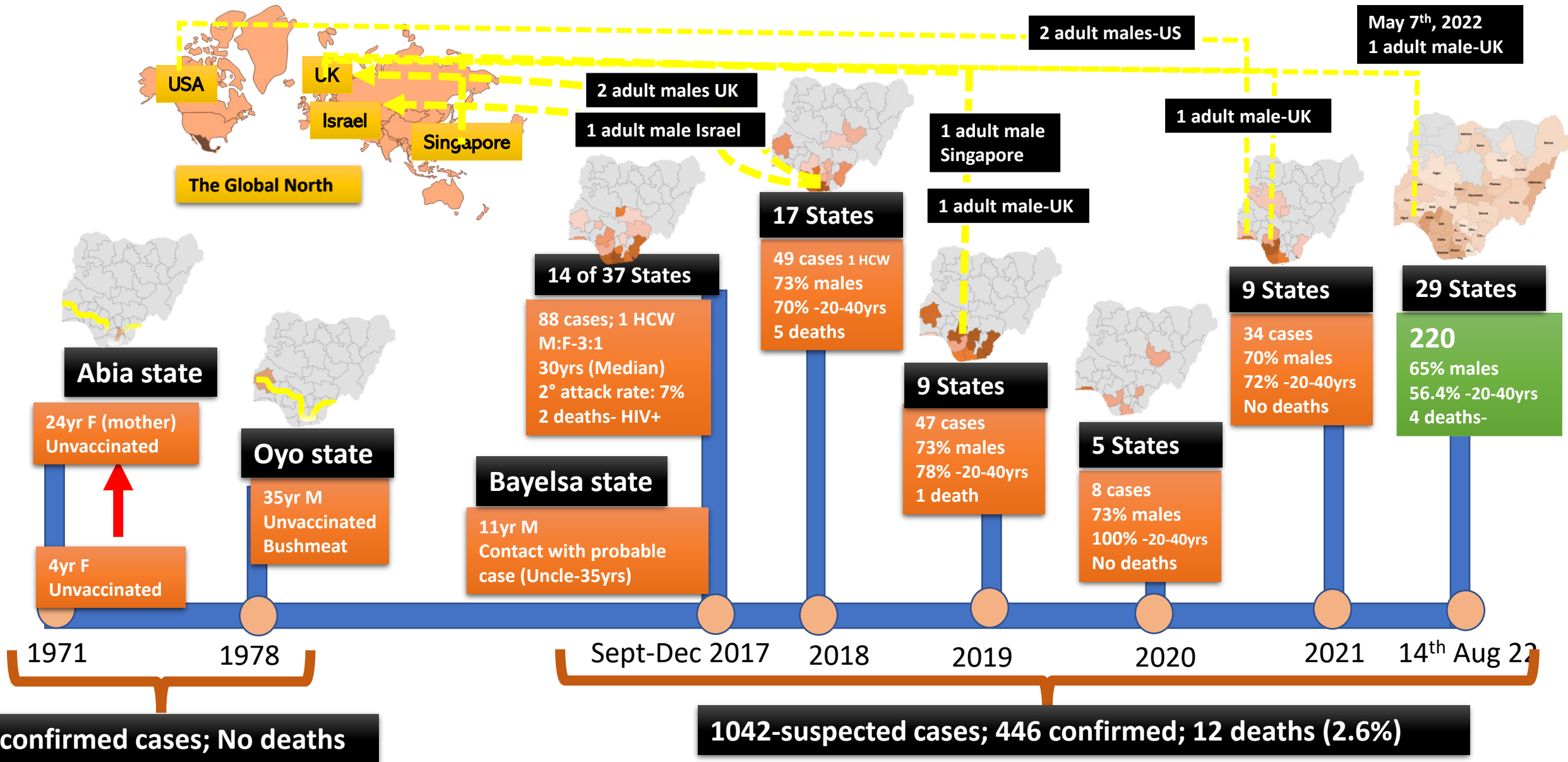
First outbreak of monkeypox in animals  
1958 Denmark



Basankusu district  
Rainforest area of West and Central Africa

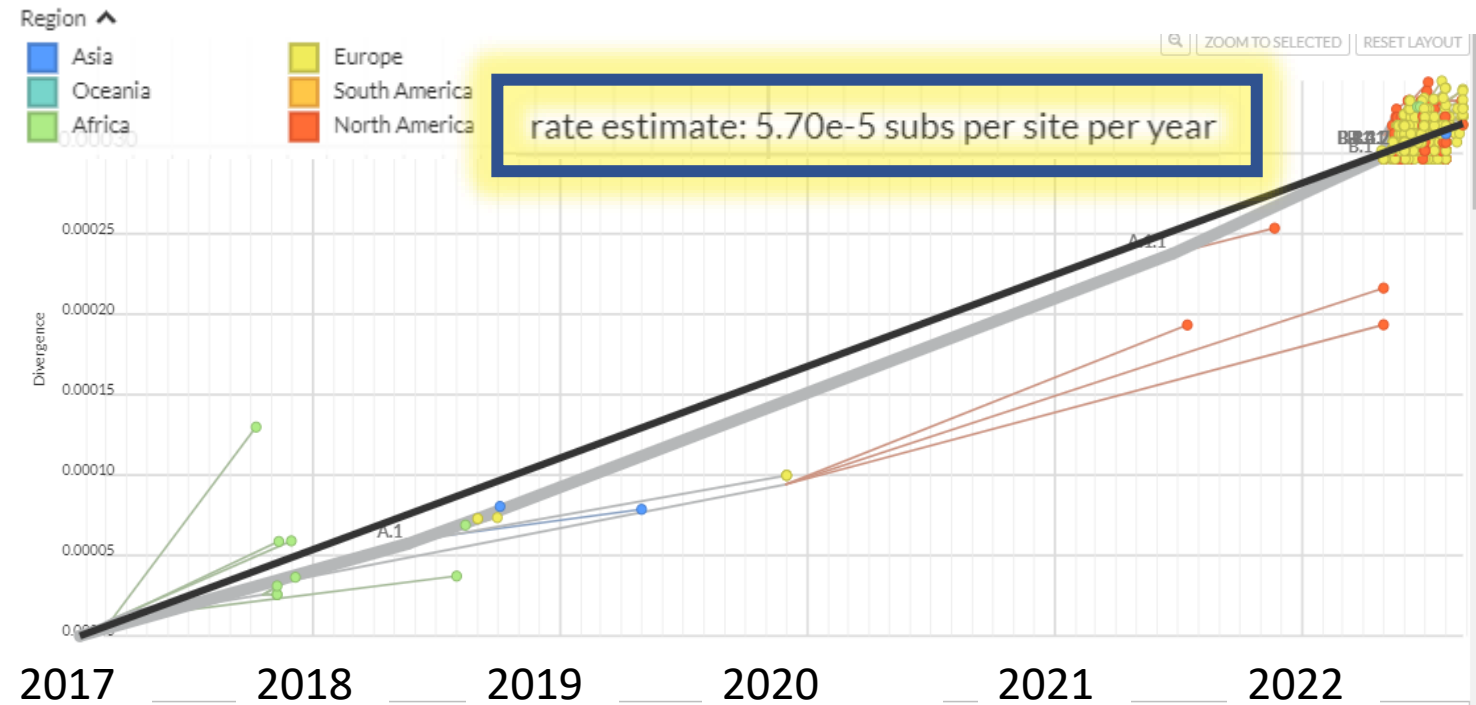
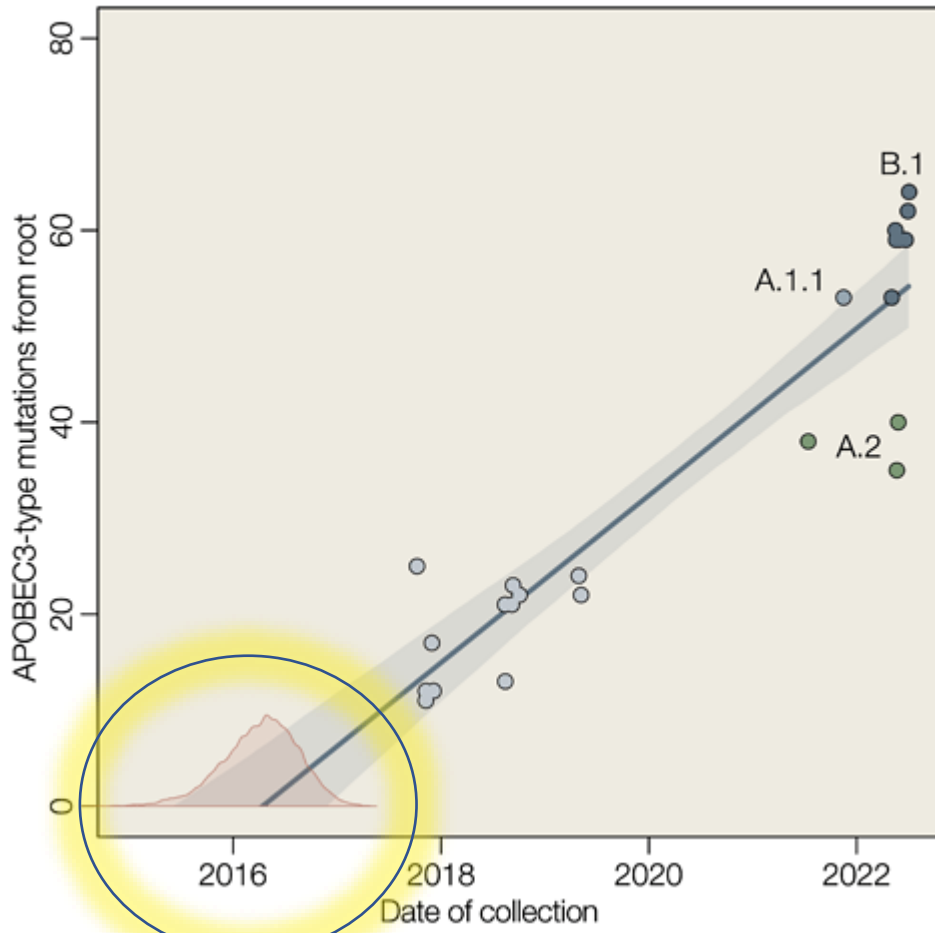
First human case of monkeypox in a  
9month old boy 1970

# Re-emergence and exportation of human monkeypox -Nigeria

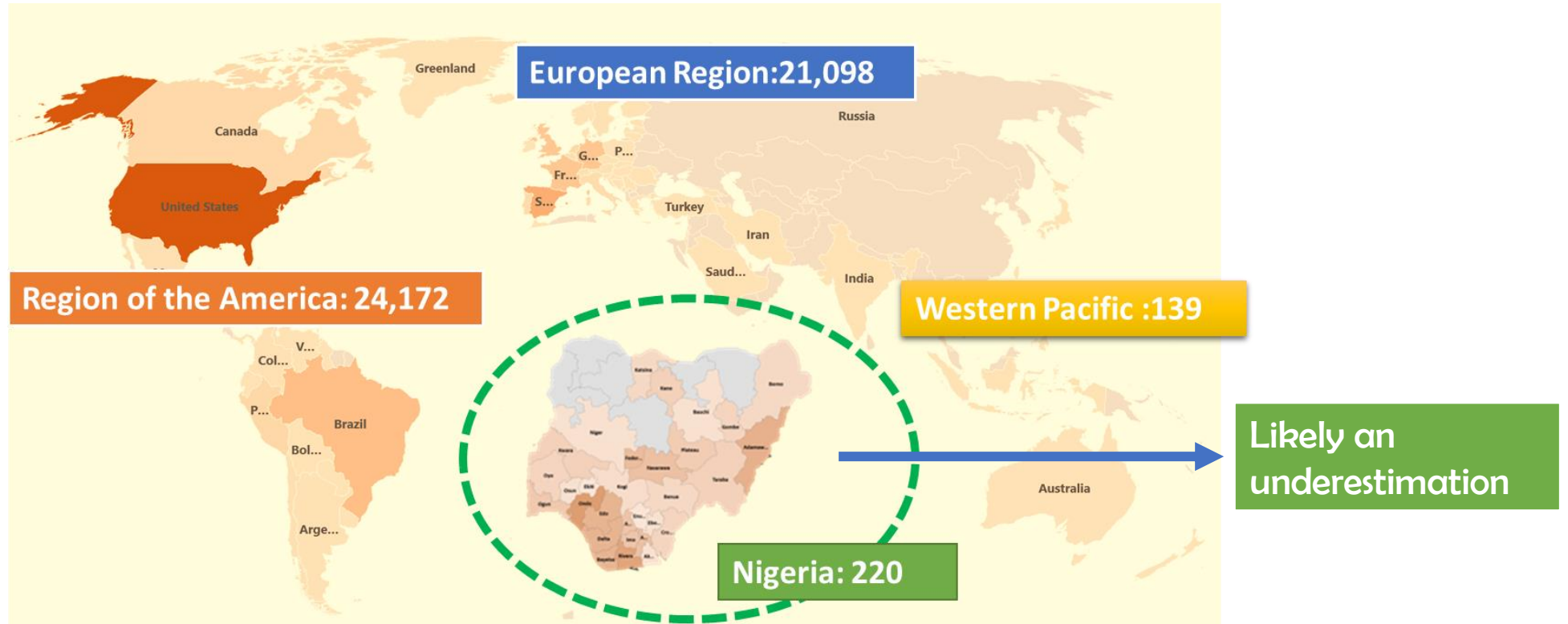




# Microevolution of the monkeypox virus: 2017-2022

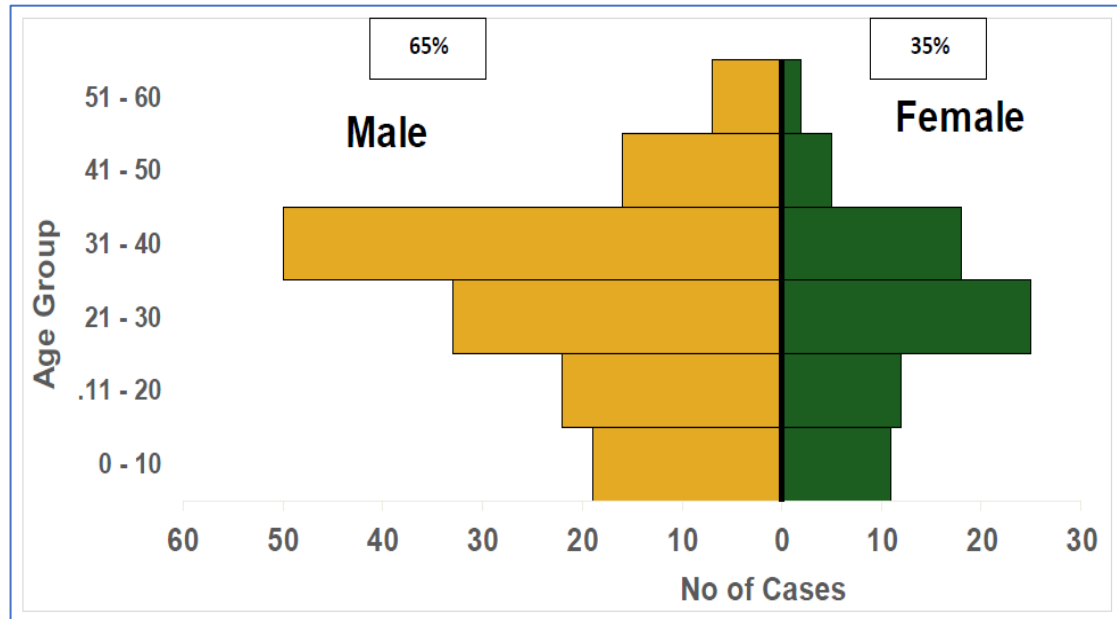


# Number of cases of human monkeypox: Nigeria vs global north (August 26<sup>th</sup> 2022)

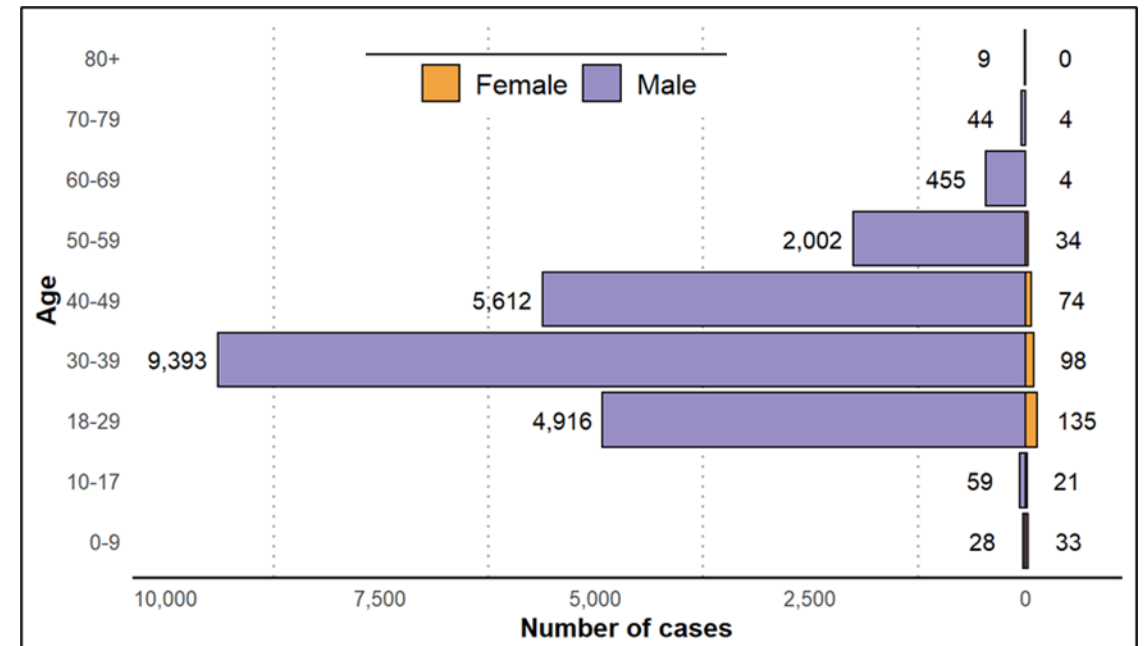


# Demographics of monkeypox: Age & Sex

## Nigeria



## Global North



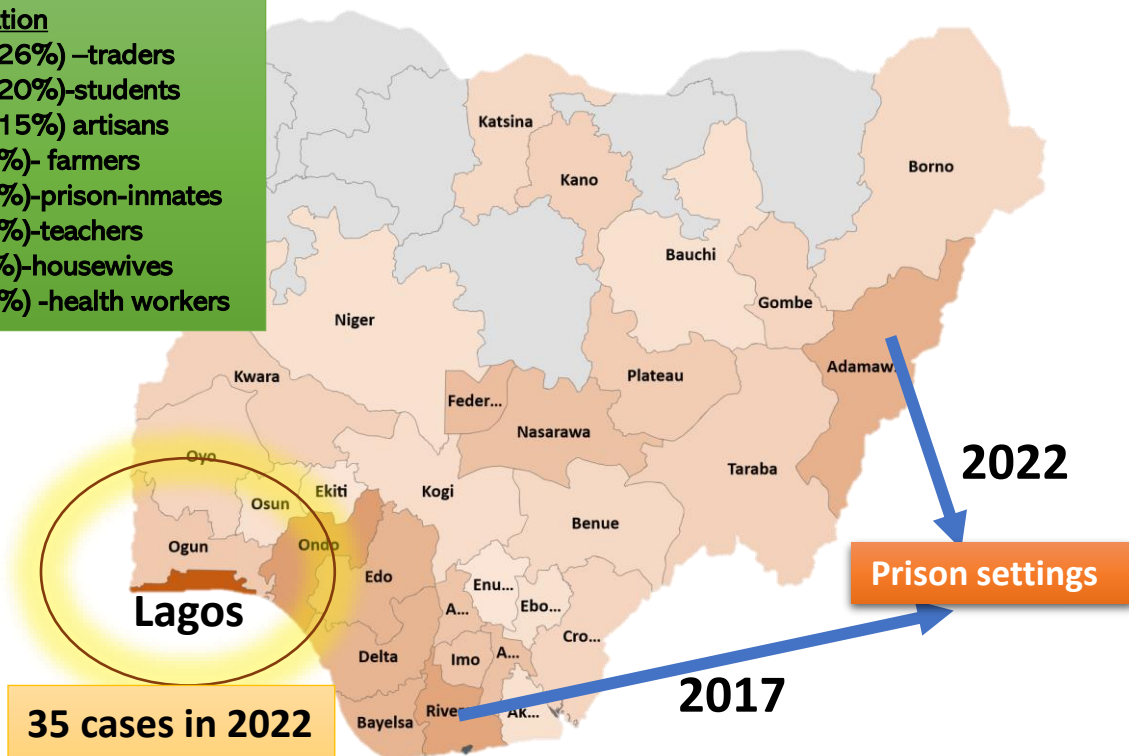


# Monkeypox in cities and other settings

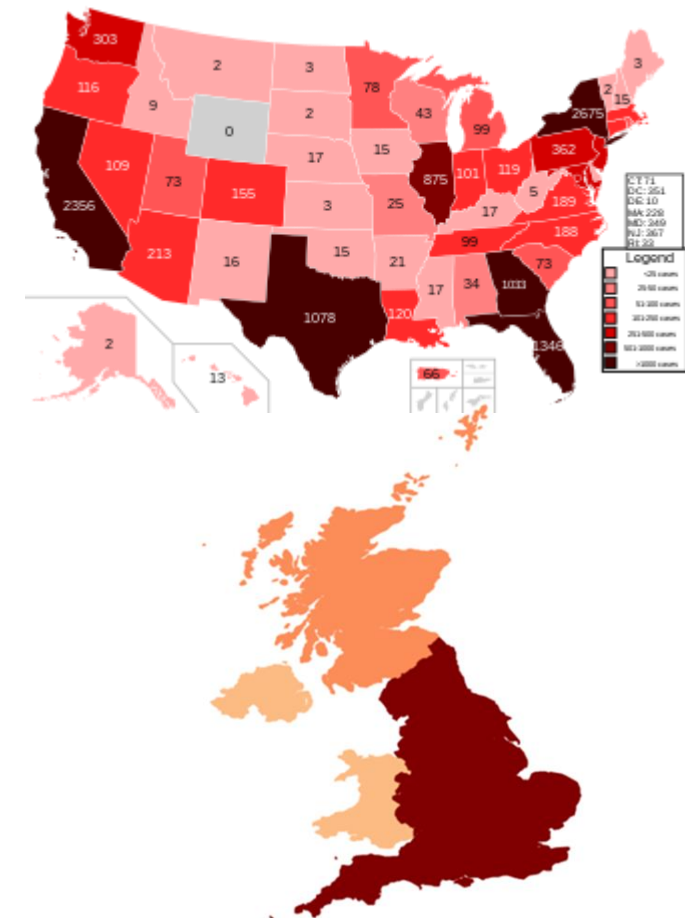
## Nigeria

### Occupation

- 24 (26%) –traders
- 18 (20%)–students
- 14 (15%) artisans
- 5 (5%)– farmers
- 5 (5%)–prison-inmates
- 4 (4%)–teachers
- 4(4%)–housewives
- 4 (4%) –health workers

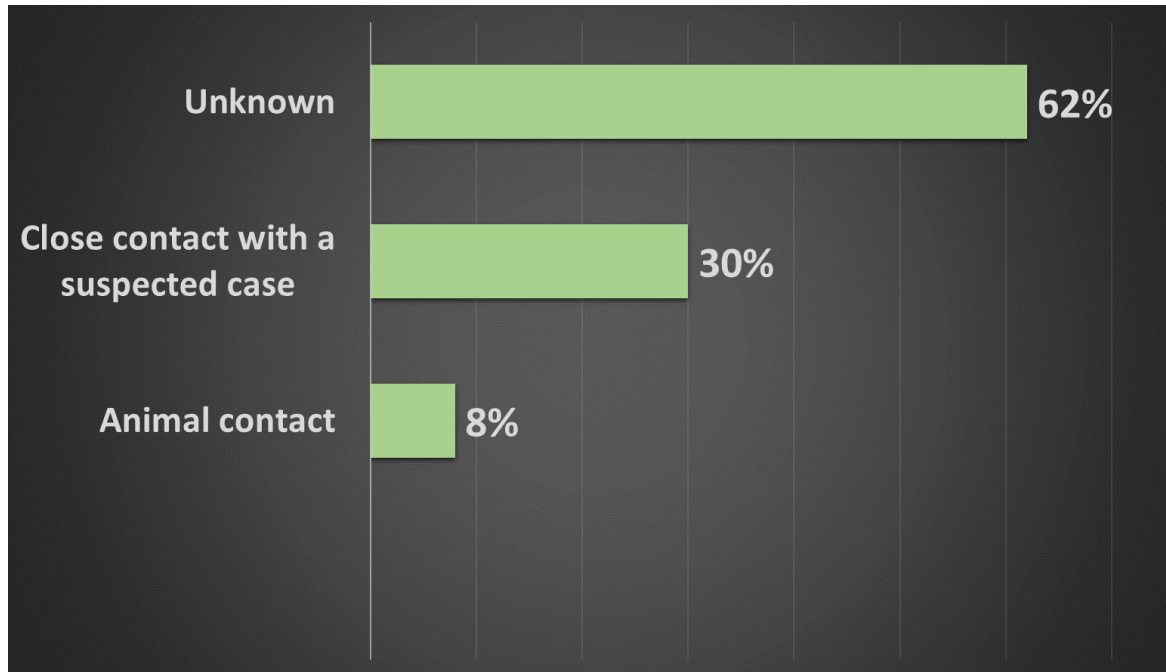


## Global North

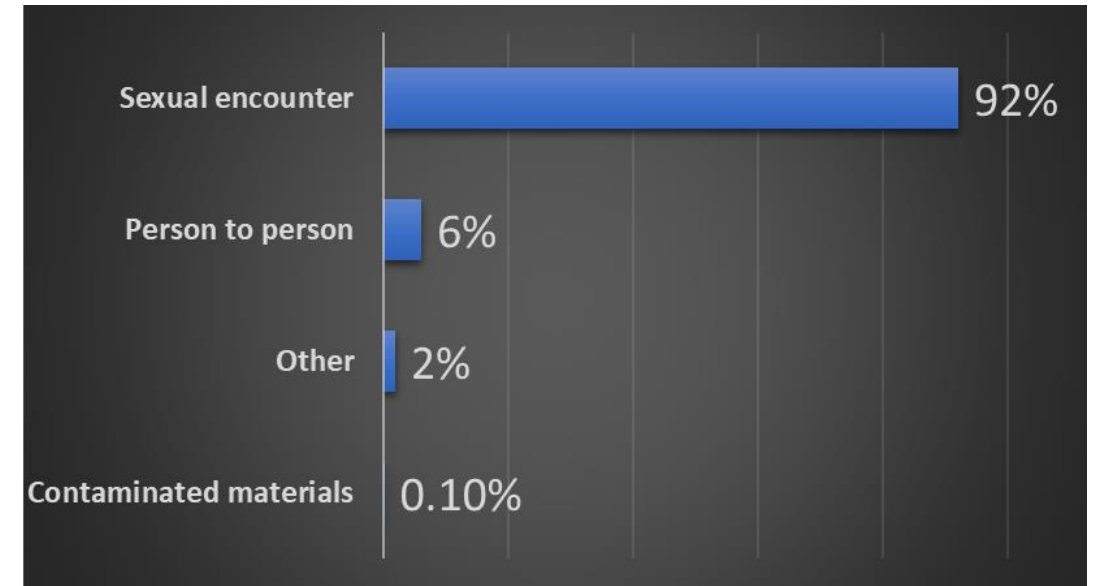


# Modes of monkeypox transmission

## Nigeria



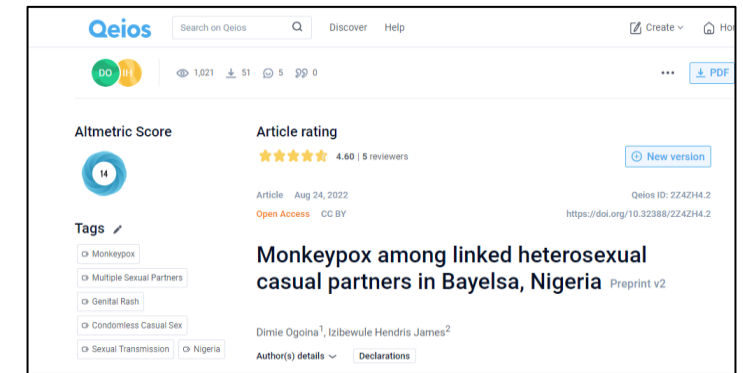
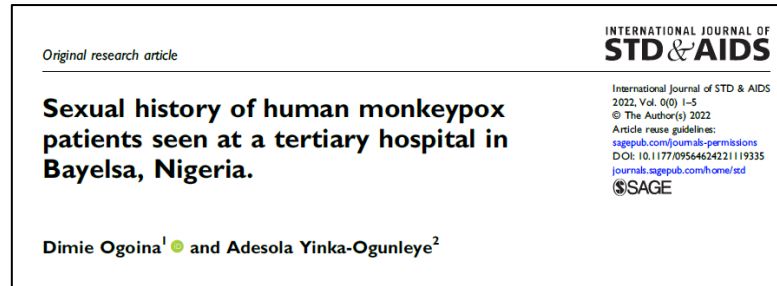
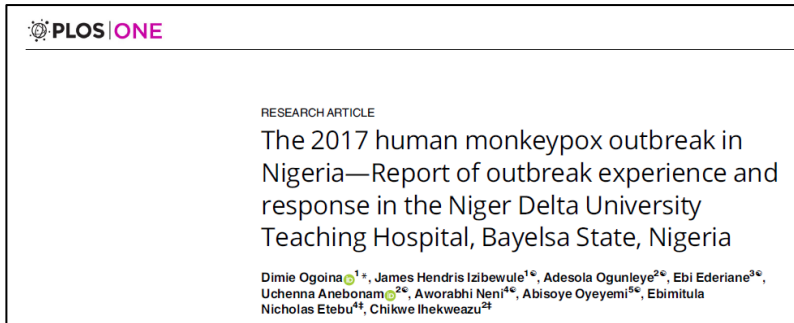
## Global North



### • Other possible risk factors

- Gay and bisexual (95.2%)
- STI (29%)
- HIV (41%)
- Multiple sexual partners (Median 5 IQR-3-15)

# Any role of sexual behaviour in transmission of monkeypox in Nigeria?



“Although the role of sexual transmission of human monkeypox is not established, sexual transmission is plausible in some of these patients through close skin to skin contact during sexual intercourse or by transmission via genital secretions”

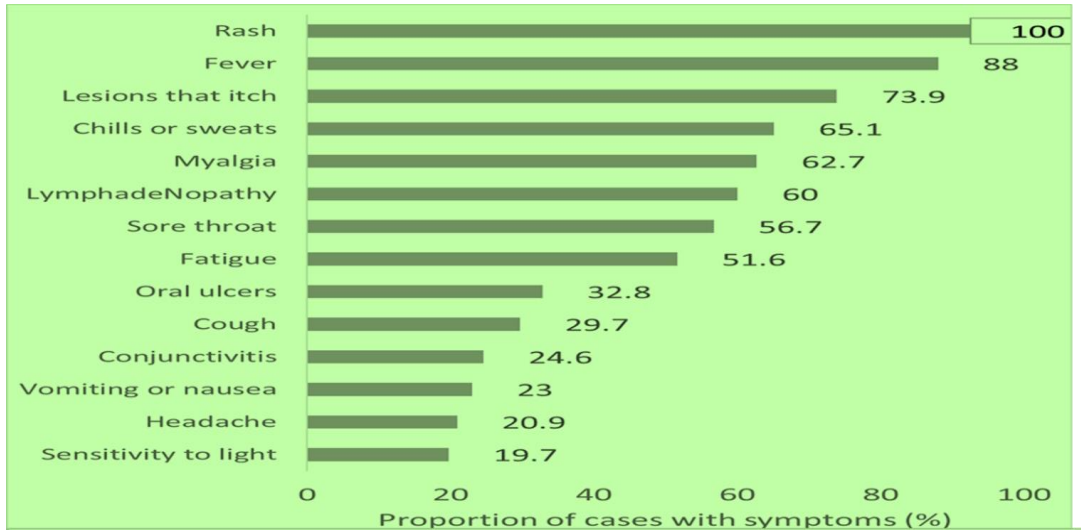
“We report prior sexual activity, MSP, CCS, transactional sex, and sex with someone with skin rash among a subset of HMPX patients from a single centre in Nigeria”

“We report potential transmission of MPV among linked heterosexual casual partners who report high-risk behaviours”

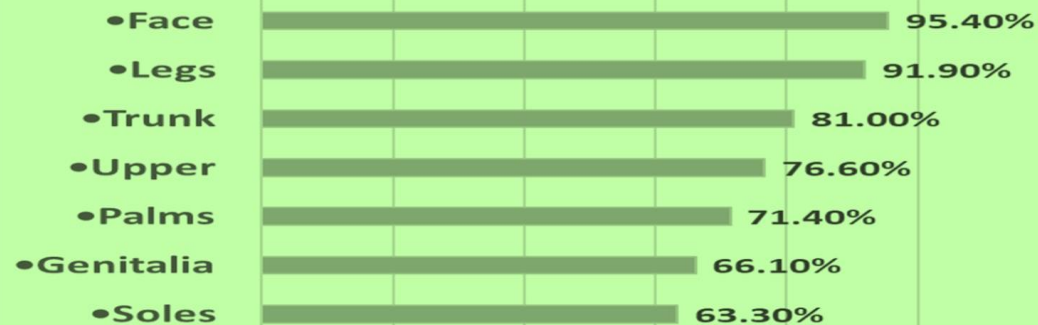
Future more elaborate studies needed on a national scale

# Clinical presentation

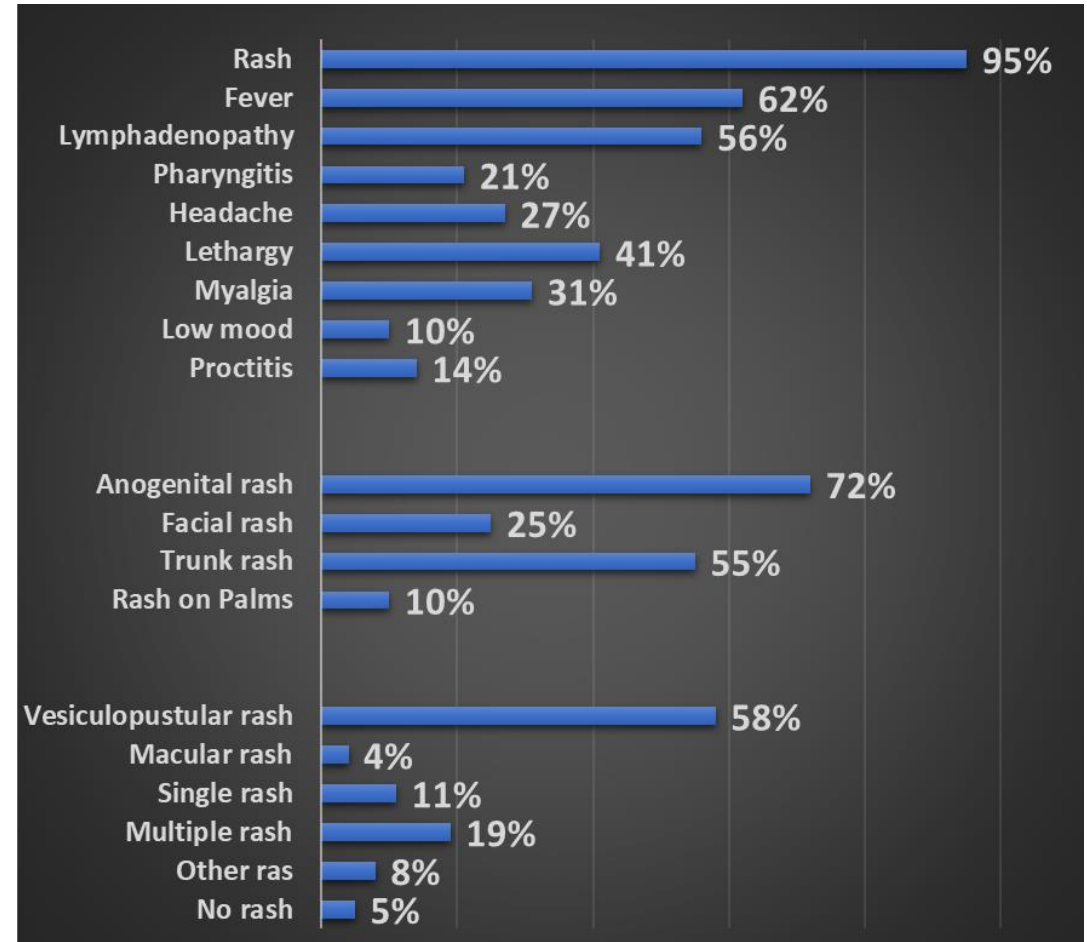
## Nigeria



### Location of genital rash

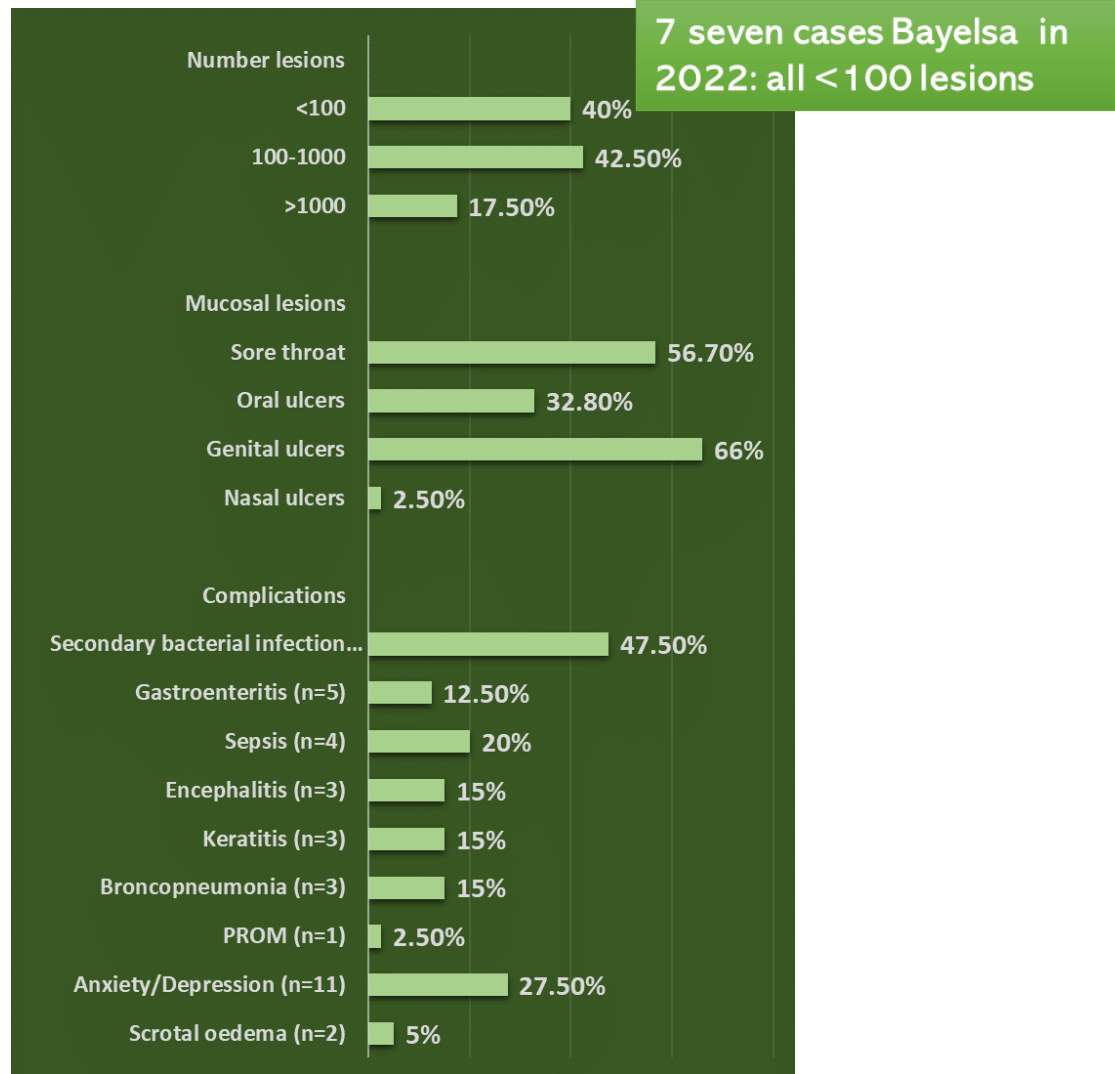


## Global North

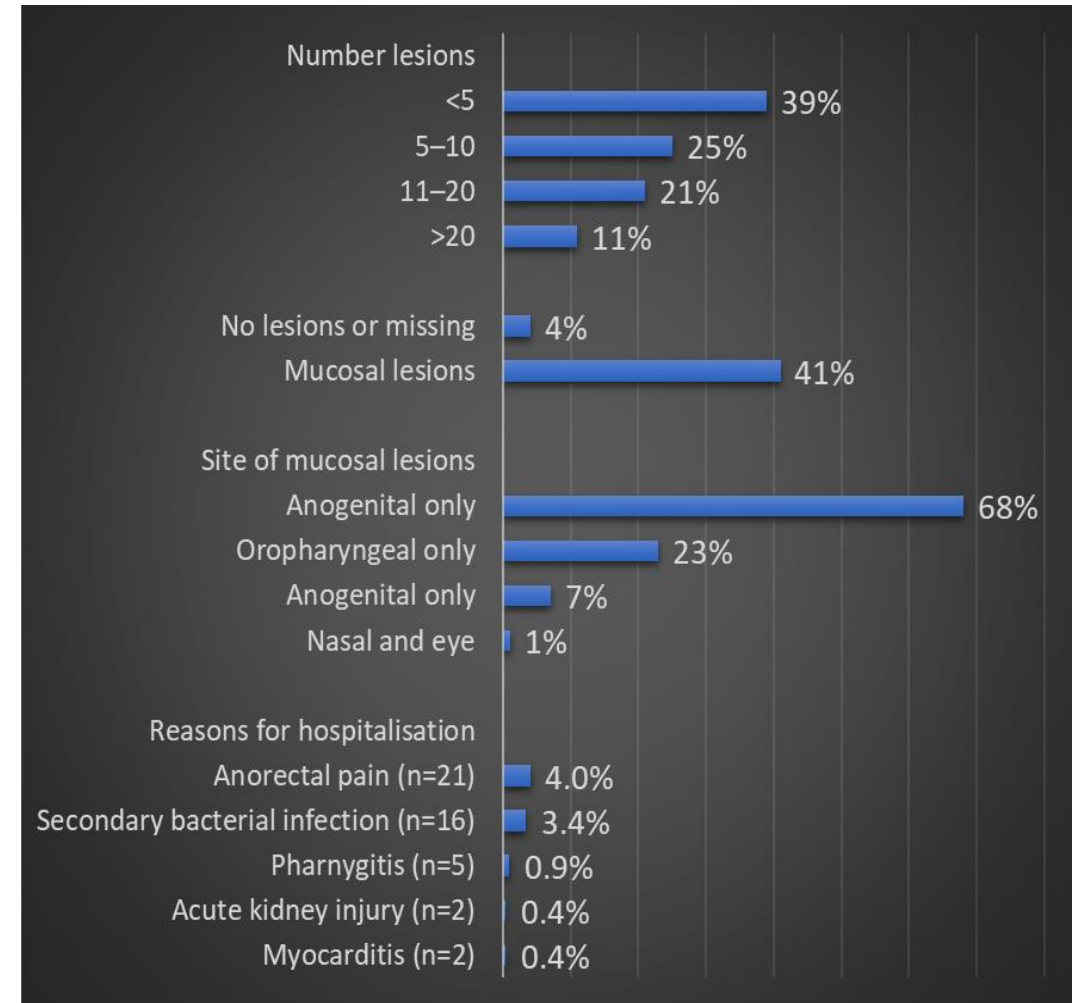


# Clinical presentation (2)

## Nigeria

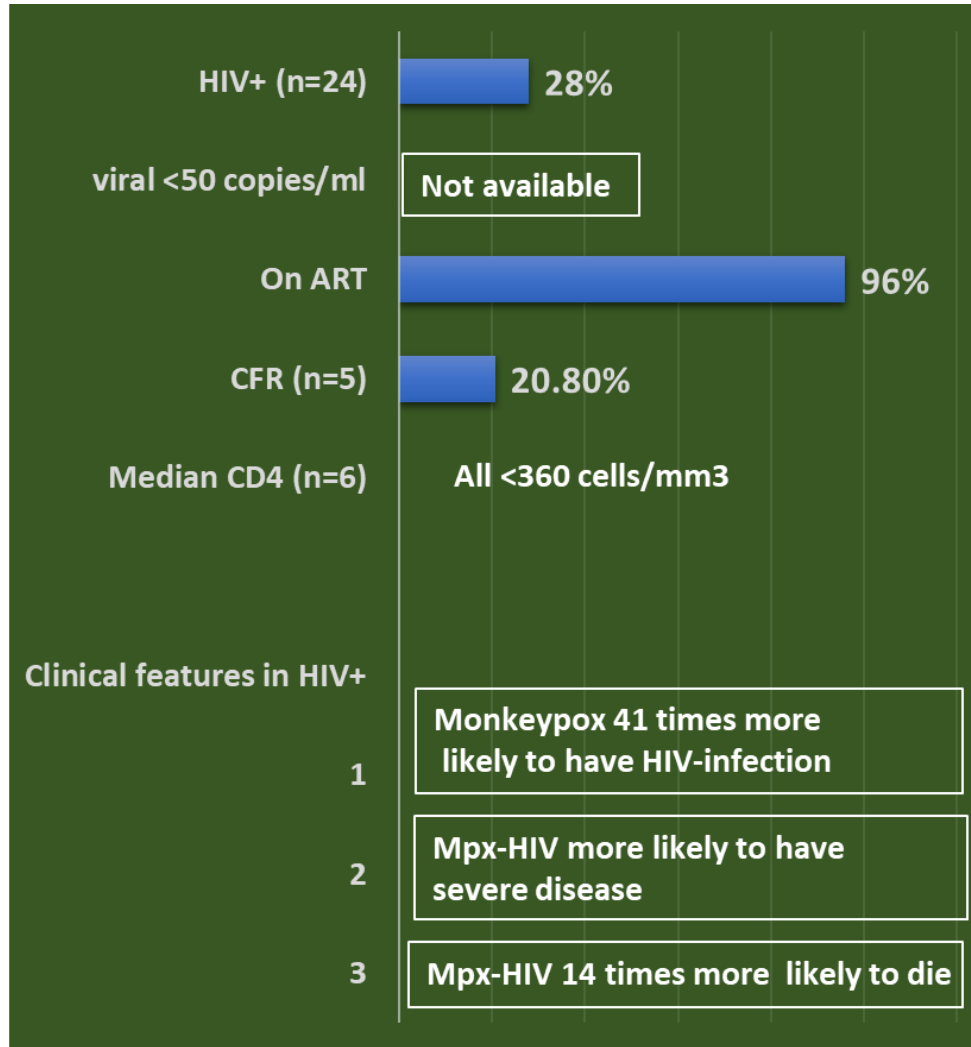


## Global North

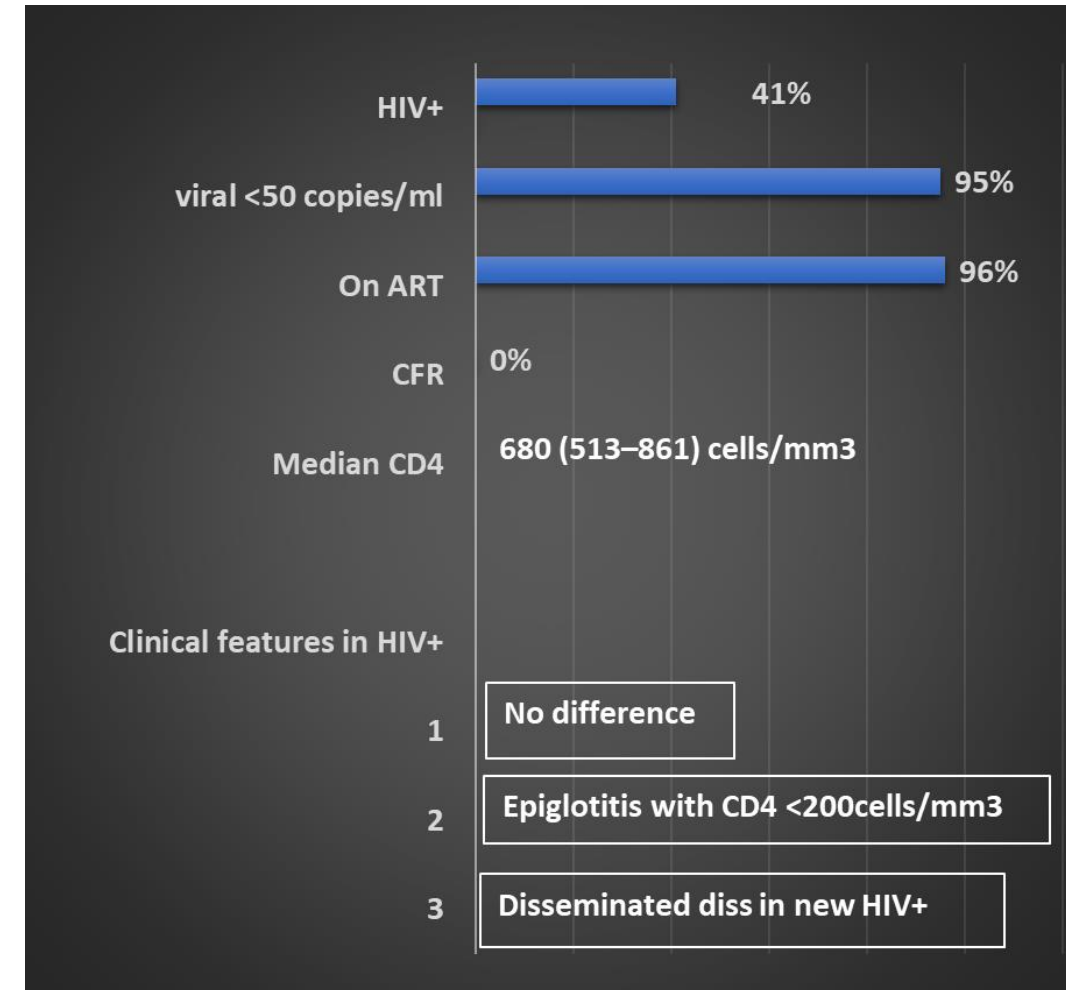


# Monkeypox and HIV

## Nigeria



## Global North



[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4172063](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4172063)

# Clinical pictures

## Nigeria



## Global North



# Clinical outcomes- Monkeypox-related deaths

## Nigeria

2.6% (12/446)

4  
HIV/AIDS

2 sepsis

1 neonatal  
encephalitis

1 renal  
failure

Others unknown

## Global North

0.01% (6/47,520)

Spain=2

*Encephalitis*  
*No immunosuppression*

Brazil=1

*Lymphoma*

Ecuador=1

*?pre-existing ailments*

Cuba=1

*Sepsis due to bronchopneumonia*

India=1

*Encephalitis*

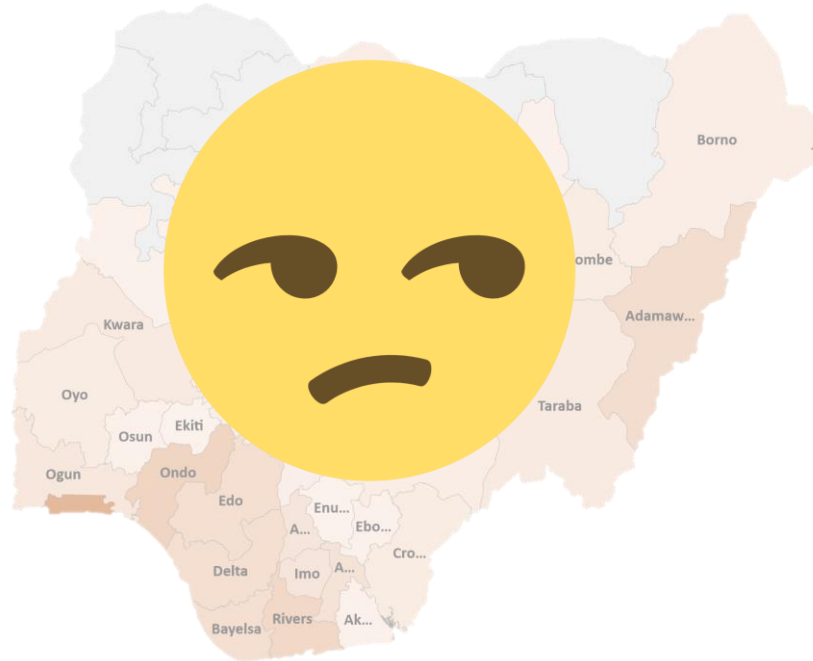
USA=1

*Severely immunocompromised.*



# Therapeutics and Vaccines

**Nigeria**



None available!

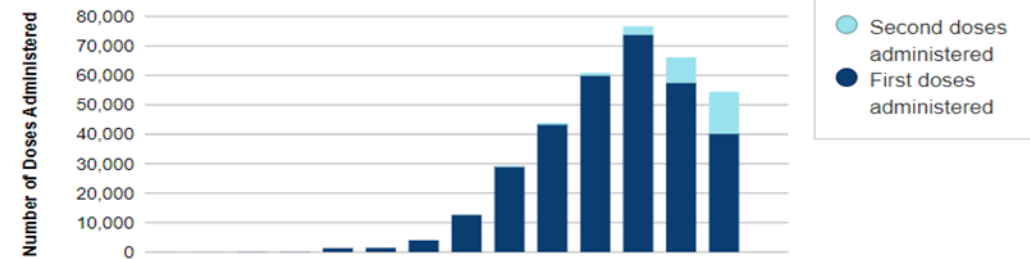
**Global North**

## Update on vaccination to protect against monkeypox in England

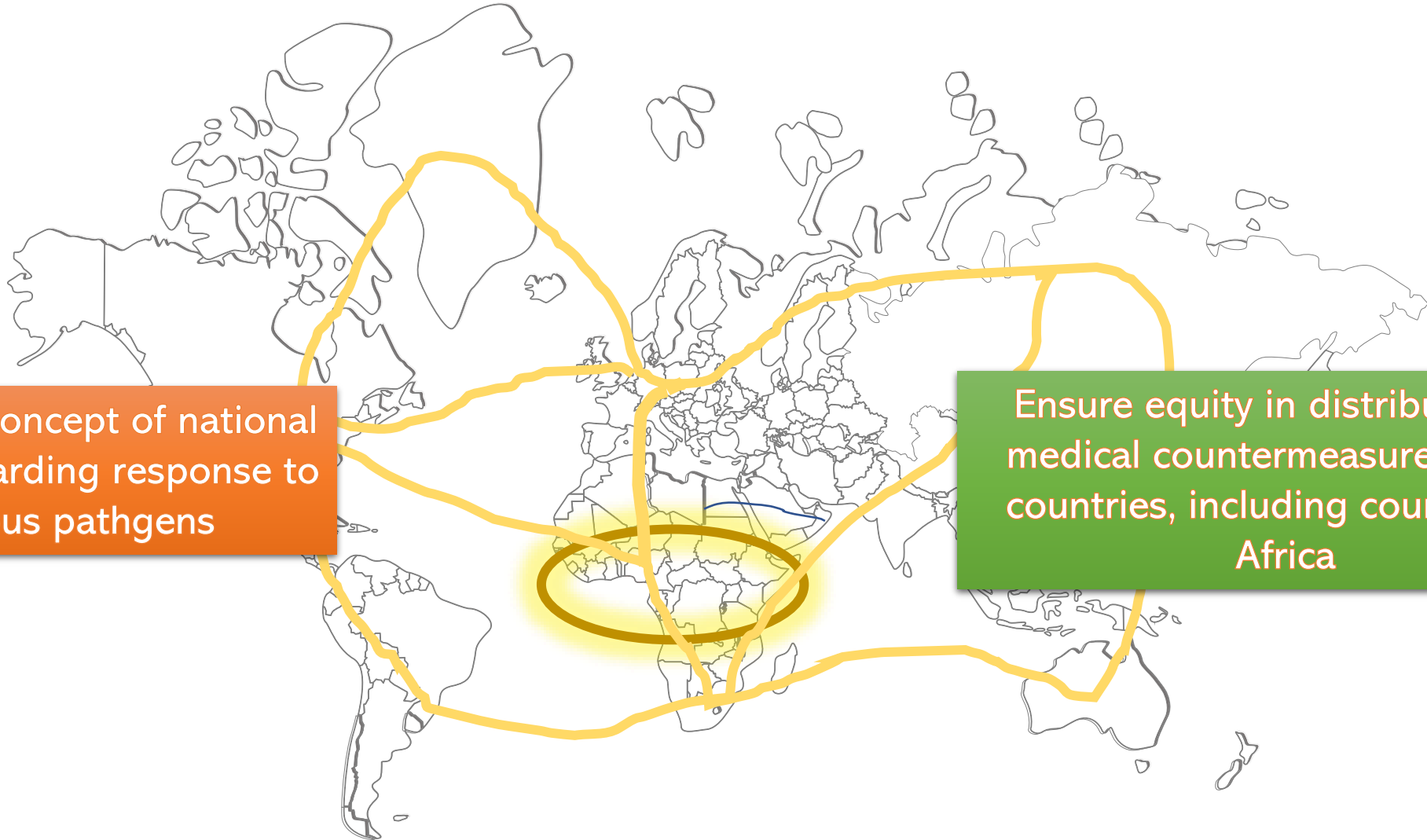
More than 25,000 people have already been vaccinated to contain the monkeypox outbreak in the UK.

**352,675**

Doses Administered in the 30 U.S. Jurisdictions Reporting Data as of August 30, 2022.



# The global spread of monkeypox: How pathogens remind us of our interconnectedness



Rethink the concept of national interests regarding response to infectious pathogens

Ensure equity in distribution of medical countermeasures for all countries, including countries in Africa

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Thank you for listening