MPOX Outbreak vaccines rollout: Evidence to Recommendation Process for NITAGs (example of PICO questions)

Dr Sidy Ndiaye, Immunization Officer, AFRO/UCN/VPD

Acknowlegment : joint effort from NITAGs support partners : TFGH, NISH, US/CDC and WHO

Broad policy question 1: Should country X recommend mpox vaccines for populations in the community at high risk* of mpox during the current outbreak?

Population	Populations in the community at high risk* of exposure to mpox in an outbreak setting (e.g. close contacts or members of "key" populations) in outbreak regions	
Intervention	Administration of the licensed[^] or WHO pre-qualified mpox vaccine (MVA-BN [Two doses], LC-16 [One dose]) or ACAM2000 (One dose)	
Comparison	No vaccination	
Outcomes	Reduction in incidence of mpox infection and complications (hospitalization or death)	
PICO Question	In persons at high risk of mpox in the community during an mpox outbreak, what is the evidence that mpox vaccine is safe and can reduce the incidence of infection, hospitalization, and death?	

• Populations in the community at high risk: To be defined based on epidemiology of mpox in the outbreak setting (e.g. household contacts of cases and contacts of contacts, other members of the local community, contact with live or dead wild animals, persons with multiple casual sexual contacts, frontline workers such as customs workers, persons working at borders with affected countries etc.).

^ mpox vaccines currently under Emergency Use Listing (EUL)

Broad policy question 2: Should country X recommend mpox vaccines for healthcare workers and frontline workers at high risk of being exposed during the current outbreak?

Population	Healthcare workers and frontline workers** at high risk of exposure to mpox.
Intervention	Administration of the licensed [^] or WHO pre-qualified mpox vaccine (MVA-BN [two doses], LC-16 [one dose]) or ACAM2000 (one dose)
Comparison	No vaccination
Outcomes	Reduction in incidence of mpox infection and complications (hospitalization or death)
PICO Question	In healthcare and frontline workers at high risk of mpox during an outbreak, what is the evidence that mpox vaccine is safe and can reduce the incidence of infection, hospitalization, and death?

**** Health care and frontline workers**: For example, health workers at risk of repeated exposure; clinical laboratory and health-care personnel performing diagnostic testing for mpox or providing care; and outbreak response team members (as designated by national public health authorities)., etc.

Specific consideration when developing criteria table and collecting evidence

Identification of Risk Groups and prioritization:	
Surveillance: Epidemiologic features and serotypes	
Vaccine Efficacy and Safety: Suitability, monitoring, and data collection	
Vaccine Access and Equity: Ensuring equitable access and preventing disparities	
Values and Preferences: Target populations and healthcare workers	
Resources: Mobilization for quick vaccine rollout	
NITAG operation:	

- Extending working group membership to Environmental and animal health experts, health ethics
- Working with the National regulatory agency, safety committee (as ex-officio member)
- leveraging in on the COVID-19 experience in providing timely recommendation, supporting the advocacy, training of health professional, Media briefing; ...
- Updating the recommendation considering new evidences and mpox outbreak evolution.