CLIMADE AFRICA WORKING GROUP MEETING MINUTES – WEEK 24

Host: Centre for Epidemic Response and Innovation (CERI)

Date: October 3, 2023

Time: 12:00 – 13:00 p.m. (SAST)

Facilitators: Dr Houriiyah Tegally

Attendance/ No. of Participants: 52

Start time: 12:02p.m. (SAST)

Purpose of the meeting

A discussion on how we can translate modeling outputs to public health response for maximum impacts led by Dr. Houriiyah Tegally.

Agenda Items

1. Welcome
2. Discussion led and moderated by Dr Houriiyah Tegally.
3. Discussion and feedback

Discussion points and questions

- Welcome and introduction to this week's discussion by Dr Houriiyah Tegally.
- Dr Tegally began the meeting with a presentation on Epidemiological, Ecological and Phylodynamic modelling for CLIMADE -Africa followed by a discussion on translating modeling outputs to public health response for maximum impacts.
- Highlighting modeling objectives for maximum impact on decision makers and creating effective back loops between researcher and public health authorities.
- Summary and overview of the discussion
    - What questions can modeling answer for CLIMADE?
    - Challenges of using modeling to inform public health actions.
    - Co-creation of modeling objective with decision makers

    - Feedback loop
- Objectives
    - Build an analytical and modeling ecosystem for CLIMADE-AFRICA consortium to draw maximum insights from pathogen genomic and disease monitoring.
    - Reconstruct and forecast the climatic, ecological, mobility related risks of arbovirus epidemic establishments in Africa, understand evolving burden of diseases and unraveling the determinants of viral pathogenic outbreaks in context of climate change.
- Fundings and Grants
- Initial objects and Vision of CLIMADE-Africa
- Data integration ecosystem for climate-sensitive arboviruses
    - Genomic data
    - Patient data
    - Ecological data
    - Epidemiological data
    - Population and mobility data

- Modeling activities for CLIMADE
  The challenge within that dynamic nature of diseases so infectious disease can evolve over time and new data may change our assumptions of a disease system meaning that static models may become outdated and require updates – How can we overcome this?
- Vector suitability range expansion
- Arbovirus transmission correlation
- Modeling risks of importation of Arboviruses into Africa
- Modelling of Spatiotemporal risks of Outbreaks
- Notes and feedback on model from CLIMADE- Africa group
- Dr Houriiyah Tegally opened the floor for discussion.
- Modeling will help and aid in capacity building.
- Modeling will help government officials identify critical areas in public health response to outbreaks and emerging diseases.
- Importance of identifying public health priorities should modelling address.
- Modelling strategies will help understand disease dynamics, current and future burdens.

- Public Health institutes and Research institute collaborations.
- To help predict Outbreaks and occurrences.
- Setting up more dashboards
- Sharing of models to work with access controlled data.
- The use of travel data for surveillance.
- Dengue outbreaks is particularly important to understand the past transmission dynamics and existing immunity in the population and to what stereotype that immunity exists because we know that the cycling of serotypes with dengue can really affect the severity so in this case it becomes quite important to understand the past in order to predict the intensity of upcoming outbreaks

Adjournment and Closing points.

1. Dengue outbreaks is particularly important to understand the past transmission dynamics and existing immunity in the population and to what stereotype that immunity exists because we know that the cycling of serotypes with dengue can really affect the severity so in this case it becomes quite important to understand the past in order to predict the intensity of upcoming outbreaks

2. Dr Houriiyah Tegally adjourned the meeting at 13:11 p.m. (SAST).

Next Meeting

Tuesday, October 10, 2023, at 12:00 – 13:00 p.m. (SAST)
Presentation on Integrated data analytics for arbovirus risk assessment by Professor Moritz Kramer of the Oxford Martin School, University of Oxford.

Submitted by: Yajna Ramphal

Approved By: Monika Moir