Workshop Report

One Health Research Tools for preparedness and response to zoonotic diseases outbreaks

March/April 2022

Contents

Introduction

On the 31st of March and 1st of April 2022 The Global Health Network supported the 2-day virtual workshop "**One Health Research Tools for preparedness and response to zoonotic diseases**" in conjunction with Africa CDC, PANDORA-ID Net, African Union, CHATHAM House and UCL.

Outbreaks that occur at the animal, human and environment interface pose a significant threat to public health, social security, and the economy. The World Organization for Animal Health (OIE) reported that 60% of the existing human infections are zoonotic and 75% of human emerging diseases are of animal origin. In addition, three out of five new human diseases detected annually are of animal origin, most of these outbreaks are triggered by favorable environments.

To guide the prevention, control and elimination of priority zoonotic disease, the Africa CDC developed a One Health Framework with the following goals:
1. Strengthen multisectoral, One Health coordination and collaboration;
2. Develop and strengthen surveillance system and data-sharing mechanisms with relevant stakeholders;
3. Strengthen laboratory systems and networks to ensure early detection, surveillance and response;
4. Ensure effective and coordinated public health emergency preparedness and response using a One Health approach;
5. Strengthen and support workforce development to prevent and control priority zoonotic diseases.

Following Africa CDC's One Health Framework goals, this workshop targeted outbreak rapid response teams from the Africa CDC emergency roster and from relevant partner institutions across the PANDORA network. The event focused on building rapid responders' research skills to enable them to build operational research collaborations and more effectively respond to zoonotic diseases outbreaks using a "One Health" approach.

The workshop emphasized the power of combining data from animal, human and environmental sectors to help design epidemiologic studies that can guide evidence-based interventions against zoonotic diseases outbreaks. The event also highlighted the opportunity for predicting zoonotic diseases outbreaks through One Health Early Warning and Response System. This is to create lead time to inform the surveillance system and allow for a successful preparedness and response strategy against such outbreaks.

Registration

A total of **966** registered for this event, from **74** countries.
Registrations countries:

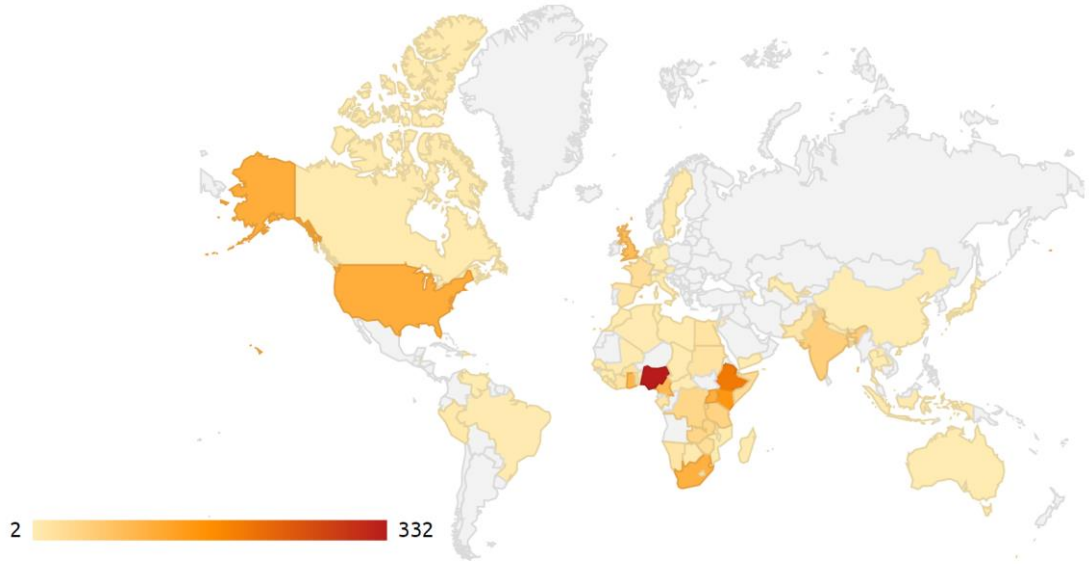


Figure 1. Heat map showing geographical distribution of registrants, covering 74 countries across the world. The scale bar shows how colour corresponds to number of registrants from each country.

Registrants by Institutions:

	What type of institution do you primarily work for/study at?	Record Count
1.	Academia (university, college, ...)	360
2.	Academia (university, college, ...)	232
3.	Government Ministry	144
4.	Hospital (Public)	134
5.	Public Health institute	112
6.	Government research organisation	98
7.	Non-government organisation (NGO)	94
8.	Government Ministry	94
9.	Non-government organisation (NGO)	84
10.	Government research organisation	78
11.	International organisation (IGO)	72
12.	Public Health institute	54
13.	Other	54
14.	Hospital (Private)	52
15.	Consultancy	50
16.	Community Health Centre/Facility	38
17.	International organisation (IGO)	36
18.	Other research organisation	32
19.	Community Health Centre/Facility	24
20.	Other research organisation	22
21.	Hospital (Public)	20

Summary of Activities

Day 1

- The first day was led by Dr Osman Dar and Dr Raji Tajudeen who moderated the sessions for the day with help of session chairs.
- During the first session, chaired by Dr John Amuasi, we heard Dr Richard Kock, Dr Danny Asogun and Dr Wanda Markotter discussed on the topic: "*Collecting aggregating, analysing and sharing zoonotic diseases' data across animal, human and environmental sectors",* which was followed by an interactive session with discussion and Q&A.
- The second session was chaired by Dr. Yewande Alimi, which featured presentations by Dr Marietjie Venter, Dr Vincent Obanda and Dr Lian Francesca Thomas on the topic "*Epidemiologic study designs: how they can guide evidence-based interventions against zoonotic disease outbreaks*". This was later followed by an interactive session with discussion and Q&A.
- To conclude, Dr Osama Ahmed Hassan presented a case study on "*Simulation Scenario of Mosquito-borne Disease Outbreak in East Africa*" with live Q&A discussion from participants.

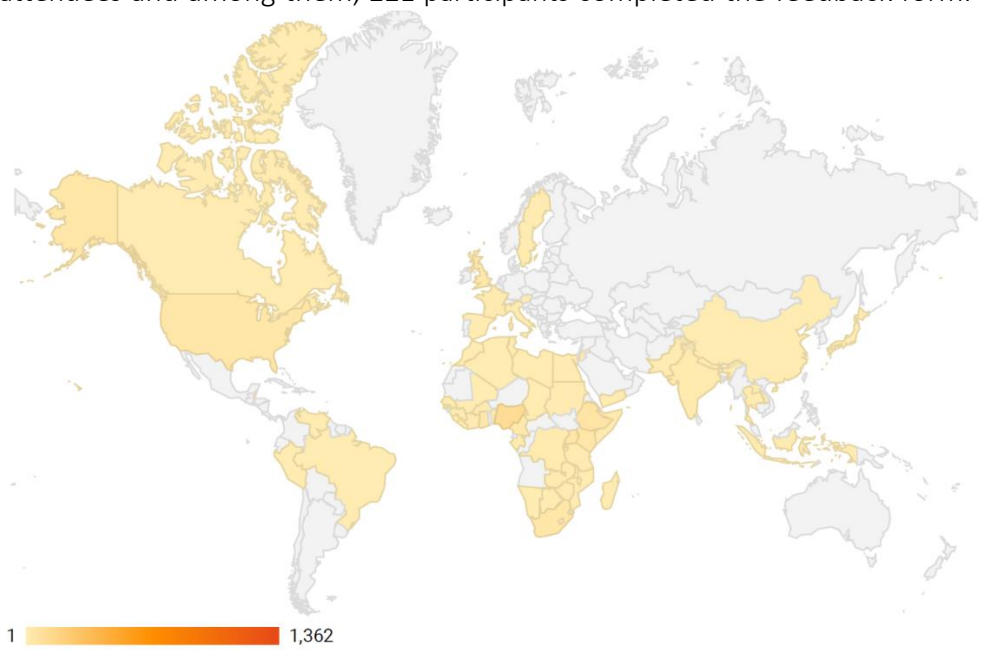
Day 2

- The second day was led by Dr Osman Dar and Dr Moahmmed Abdulaziz who moderated the sessions for the day with help of session chairs.
- During the third (first for days 2) session, chaired by Dr Laura Espinosa, *'One Health Early Warning and Response System Tools'* were shared by presentations from Ms Kyeng Mercy Tetuh, Dr Andrea Capobianco Dondona and Dr Mwangi Thumbi. This was followed by a lively interactive discussion and Q&A.
- The fourth session was chaired by Salome Bukachi, which featured presentations by Dr Stephanie Jane Fazekas Salyer, Dr Jakob Zinsstag, Yahya Osman and Dr Harry Oyas on the topic "*Syndromic surveillance as a tool to strengthen the conventional surveillance in Africa*". This was later followed by an interactive session with discussion and Q&A.
- To conclude the workshop, Dr Karishma Kurup moderated a case study presented by Dr Ivy Asantewaa Asante on "*Health Alert*" with live Q&A discussion from participants.

Attendee report

Demographics

There were 484 attendees and among them, 221 participants completed the feedback form.

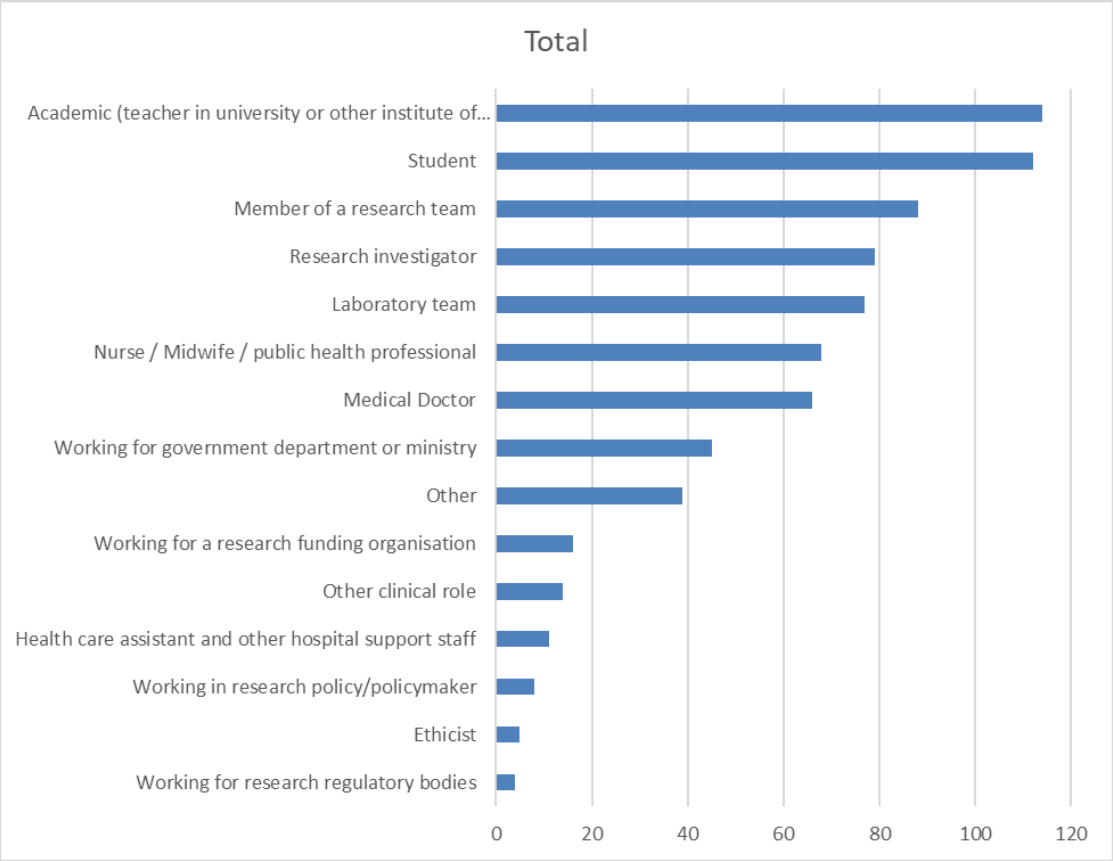


The majority of the attendees came from Nigeria, Ethiopia, Kenya, South Africa, United States, Uganda, Ghana, Cameroon, United Kingdom, DRC, India, Congo, Zambia, France, Tanzania, and Burkina Faso as in the table below.

Registrations	Count	Attendees	Count
Nigeria	332	Nigeria	111
Ethiopia	198	Ethiopia	54
Kenya	152	Kenya	39
United States	112	South Africa	36
Uganda	108	United States	34
South Africa	106	Uganda	34
Ghana	96	Ghana	31
Cameroon	90	Cameroon	26
United Kingdom	84	United Kingdom	25
Congo, Democratic Republic of the	58	Congo, Democratic Republic ...	18
India	54	India	14
Tanzania	44	Congo	14
Zambia	40	Zambia	11
Congo	40	France	10
Somalia	28	Tanzania	8
Zimbabwe	26	Burkina Faso	7

Primary occupation of participants

The majority of the participants reported to be academics and working for universities or academic institutions, students, research and laboratory teams. Other cadres included medical doctors, clinical staff such as nurses, midwives and public health professionals.



Participants feedback about the workshop

What were the main reasons for attending the workshop?

There was a balanced mix of responses to reasons for attending the workshop, with the largest being that it would help with respondee's careers and they had a general interest in the topic. The certificate of attendance was valued, as was the trust in the organisations involved.

What would you do differently after attending this workshop?

Participants found the workshop informative in changing their current practices in the various disciplines they work in. The lessons would assist them in their preparedness knowledge, zoonotic diseases, outbreak investigation, surveillance, research design and implementation, animal health, public health, collaboration, community engagements and others as in the summary chart below.

Word	***Frequency***
health	*75*
zoonotic	*44*
diseases	*35*
research	*33*
approach	*28*
surveillance	*24*
disease	*23*
outbreak	*22*
animal	*19*
data	*19*

Some of the relevant quotes included *'I will* ***Include the environmental/ topographical data in my data collection, and prioritise obtaining disease burden (infection burden, socio-economic and societal burden) information in my parasitological studies.'***

Other participants reflected this on their current work in surveillance and said the workshop help them change their practice to be be more cautions of samples/specimens from animals e.g. 'I will be cautious while considering specimen from animals while doing zoonotic prone epidemic surveillance'. On the same topic another participant added '*I will be be cautious while handling samples from animals that could be easily spread causing pandemics'*

Participants responses

	Strongly agree	Agree	Disagree	Strongly disagree
The workshop was a good fit for my needs	71.4	28.0	0.4	0.1
The concepts and skills presented were explained well	69.8	29.9	0.1	0.1
There is at least one thing that I will do differently or act on as a result of attending this workshop	70.1	29.8	0.1	0.0

What would you like to change in future workshops?

Among the responses there was a general contentment and comments suggesting the continuation of workshops such as this one. In relation to timings, participants have kindly suggested to increase the time allocated to speakers and to increase the days, and minimize the time per day – some considered three hours as being too long. They have expressed their interest in regional in-person trainings, and on having interactive sessions with break-out rooms. Moreover, for technological suggestions, they suggested the organizing team share case studies beforehand to participants, and to increase the coffee breaks within the sessions.

Also, participants have suggested to include policymakers from governments in the presentations and offer to interested participants a platform to be part of a research team in the area of zoonotic diseases.