

Meeting Report: Inaugural Emergency Preparedness & Response (EPR) Technical Advisory Meeting

Saly, Senegal 16-18 July 2024



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List of Acronyms

Acronym	Full Spelling
AMA	African Medicine Agency
AVoHC-SURGE	African Volunteer Health Corps – Strengthening & Utilizing Response Groups for Emergencies
CDC	Centers for Disease Control and Prevention
CPD	Continuous Professional Development
CS	Collaborative Surveillance
CSOs	Civil Society Organizations
cVDPV	Circulating Vaccine-Derived Poliovirus
EPI	Ethiopian Public Health Institute
EMA	European Medicines Agency
EPR	Emergency Preparedness & Response
EWARS	Early Warning, Alert and Response System
FDA	Food and Drug Administration
GHEC	Global Health Emergency Corps
HEPR	Health Emergency Preparedness Response and Resilience
IA2030	Immunization Agenda 2030
ICG	International Coordinating Group
IDSR	Integrated Disease Surveillance & Response
IHR	International Health Regulations
INB	Intergovernmental Negotiating Body
JEE	Joint External Evaluation
JEAP	Joint Emergency Action Plan
NAPHS	National Action Plans for Health Security
PHEIC	Public Health Emergency of International Concern

Acronym	Full Spelling
PHEOC	Public Health Emergency Operations Center
PHSIMS	Public Health Surveillance and Information Management System
PQ	Prequalification
R&D	Research and Development
REC	Regional Economic Communities
RD	Regional Director
RITAG	Regional Immunization Technical Advisory Group
SAGE	Strategic Advisory Group of Experts
SPAR	State Party Annual Reporting
STOP	Stop Transmission of Polio
TAG	Technical Advisory Group
TASS	Transforming African Surveillance Systems
VPD	Vaccine-Preventable Diseases
WHO	World Health Organization
WHO/AFRO	World Health Organization Regional Office for Africa
WHA	World Health Assembly
WGIHR	Working Group on Amendments to the IHR

Message from Leadership

From the Regional Director, Dr Matshidiso Moeti:



The COVID-19 pandemic's horrific toll on health and wellbeing globally, particularly to people living in the most vulnerable and marginalized situations, enhanced the urgency to strengthen capacities to prepare for, prevent, detect and respond to health emergencies at national, regional and global levels.

In 2023, I established the WHO/AFRO Emergency Preparedness and Response Technical Advisory Group (EPR-TAG), a multi-disciplinary group of experts to provide independent advice on Emergency Preparedness and Response in the WHO African Region. An important strength of the EPR-TAG is the breadth of expertise represented. The first meeting of the EPR-TAG was held in July 2024 in Senegal, the location of one of WHO/AFRO's two sub-regional emergency hubs.

The meeting discussed five thematic areas of pressing concern for the Region including ongoing global health security governance and financing negotiations; sustainable health emergency workforce; immunization in humanitarian and emergency settings; accurate measures of preparedness and the operationalization of collaborative surveillance.

The EPR-TAG made a series of practical recommendations that are detailed in this report. These recommendations are now being implemented, with each one assigned a focal point and timeline. WHO/AFRO, working with broad range of partners and stakeholders, is committed to supporting our member states to prevent, mitigate and prepare for risk to health from all hazards. I appreciate the valuable contribution of the EPR-TAG to our work and look forward to strengthening this important partnership even further.

From the EPR-TAG Chair, Dr Deo Nshimirimana & EPR-TAG Vice Chair, Dr Rebecca Martin:



The inaugural meeting of the EPR-TAG demonstrated WHO/AFRO's commitment to strengthening health security across the African Region. As the Region continues to face the highest burden of health emergencies globally, substantial resources and capacities are needed to respond to immediate crises while also building sustainable, resilient systems that can prevent and respond to future health threats. The meeting's discourse was rich and complex, leading to the formulation of recommendations based on data, real-time situations, and the goals of WHO/AFRO.

Although the meeting lasted only two days, it represented the culmination of months of preparation. The process began with an in-depth briefing from the WHO Regional Emergencies Director (RED), Dr Abdou Salam Gueye, and his team, who provided a comprehensive overview of regional health emergency priorities. This allowed for the selection of five thematic areas for TAG advice, each of which was assigned to TAG members with relevant expertise. They worked with the WHO technical leads and staff to prepare for the in-person discussions.

One of the highlights of the in-person meeting was the active participation of TAG members, who contributed unique perspectives, insightful questions, and innovative ideas. We also appreciated the presentations from Ministries of Health and WHO Country Office staff, which provided valuable real-time insights into the challenges faced by Member States in addressing public health emergencies. Taking advantage of the meeting location in Senegal, we were honored to be joined by the Honorable Minister of Health of Senegal Dr Ibrahima Sy and WHO Representative for Senegal Dr Jean-Marie Vianny Yameogo. The candid discussions enabled the finalization of recommendations, which were reviewed with Dr Matshidiso Moeti, who offered her approval and invaluable guidance for their implementation.

We extend our sincere thanks to Dr Matshidiso Moeti for her leadership of the TAG. We also want to offer our gratitude to Dr Abdou Salam Gueye and his team for their excellent preparation and execution of the meeting. Their high-quality presentations and professionalism in organizing the sessions were instrumental to the success of the meeting. We look forward to supporting the team in putting the recommendations into action and championing WHO/AFRO's mission to strengthen emergency preparedness and response.

Executive Summary

About the TAG

In 2023, the WHO Regional Office for Africa (WHO/AFRO) established an Emergency Preparedness & Response Technical Advisory Group (EPR-TAG). This independent body serves as the principal advisory group to WHO/AFRO for strategic guidance on public health emergencies, supporting WHO/AFRO in fully executing its essential role in preparing for, detecting and responding to 100+ emergency events each year. The EPR-TAG reports directly to the WHO Regional Director (RD) for Africa and advises the RD on overall regional mitigation, preparedness, response and recovery policies and strategies.

Following a call for applications in July 2022 that drew nearly 600 submissions, 16 members were selected for the EPR-TAG representing diverse organizations, nationalities and expertise. Dr Deo Nshimirimana was selected as TAG Chair, a medical doctor and independent global health consultant who retired from WHO in 2018 as the WHO Representative in Senegal. Prof. Rebecca Martin, Vice President for Global Health at Emory University, was selected as Vice Chair, bringing her nearly 30-years of public health experience, including serving as the director of the Global Health Center at US CDC and eight years detailed to WHO in the African and European regions.

About the Meeting

From 16-18 July 2024, the EPR-TAG met for its inaugural, in-person meeting in Saly, Senegal a pivotal moment to discuss key factors in health emergencies and generate practical recommendations. The first two days of the meeting allowed for in-depth discussion on key themes that could benefit from TAG advisory. In addition to TAG members and WHO experts, partners were invited to join during in an observer capacity to better understand the challenges and opportunities facing the WHO/AFRO EPR program and how to strengthen their partnerships with WHO/AFRO. Following, on 18 July 2024, a Partners' Roundtable was held to enable partners to share their perspective and facilitate knowledge-exchange.

Meeting Objectives

- Provide a forum for in-depth discussion on thematic areas that could benefit from TAG advisory
- Enable the EPR-TAG to generate concrete recommendations around each selected thematic
- Provide a forum for partners to gain awareness of the WHO/AFRO EPR program and share their perspectives

Session Themes

1. Global developments in emergency preparedness and response
2. Sustainable health workforce for emergencies
3. Immunization in humanitarian and emergency settings
4. Measuring preparedness
5. Collaborative surveillance

Meeting Participants

In total, the meeting brought together approximately **64 participants in person** and **299 participants online** over the course of the three days. The in-person attendees consisted of EPR-TAG members, representatives from WHO and Senegal-based partners, and the Honorable Minister of Health and Social Action of Senegal Dr Ibrahim Sy opened the meeting. Dr Moeti joined the meeting for the second and third days. The online participants included representatives from WHO, other UN agencies, Ministries of Health, the private sector, NGOs and academic institutions from 39 African countries and 13 non-African countries. Approximately 54% of online participants were male whereas 46% were female.




EPR-TAG Members and Dr Matshidiso Moeti, Regional Director, WHO AFRO


Meeting Outcomes

The primary outcome of the meeting was the generation of strategic policy and programmatic recommendations for each session and overall, which were designed to augment AFRO's existing work and accepted by the RD. Some recommendations outlined actions for AFRO to take urgently in response to recent developments in the emergency landscape. For example, the TAG recommended AFRO strengthen African Member State representation in global negotiations in the lead-up to the May 2025 deadline for consensus toward a Pandemic Accord. Recommended actions included working closely with Africa CDC to set up a mechanism for training Member State negotiators to optimize their effectiveness and advocating for African Union endorsed technical agencies as well as independent technical experts to be invited to support African Member States at global deliberations.

? How can WHO/AFRO strengthen African Member State representation in global negotiations around pandemics?

 TAG recommends several actions to be considered in collaboration with the African Union to help secure commitments that reflect Africa's unique needs and priorities.

? Do rising cases of measles across the African Region constitute a Public Health Emergency of International Concern?


 TAG recommends that AFRO request a convening of experts to review the data and consider this question.

The TAG also recommended – aligned with recent recommendations from the Regional Technical Advisory Groups on Immunization (RITAG) – that AFRO urgently address the increase in regional measles outbreaks. Measles remains one of the leading causes of death among young children across the African region even though a safe and cost-effective vaccine is available. During the COVID-19 pandemic, the number of cases of measles increased more than 400% largely reflecting the accumulation of children who missed routine vaccinations against measles and other vaccine-preventable diseases. Large or reoccurring outbreaks in the Region persist in countries with large pockets of under immunised children. Specifically, it was recommended that the AFRO RD approach the WHO Director General in conjunction with the African Union and Heads of State requesting the

convening of an International Health Regulations (IHR) Emergency Committee on Measles to consider if the current situation constitutes a Public Health Emergency of International Concern (PHEIC).

Other recommendations focused on building upon and strengthening existing systems and programs, work that is expected to be ongoing over the next several years. For example, the TAG recommended steps for AFRO to take in order to enhance the sustainability of its flagship emergency workforce initiative that is implemented in partnership with Africa CDC, AVoHC-SURGE¹. One of the key actions recommended was strengthening collaboration with African Universities, including by integrating pre-service training modules on public health emergencies into the curriculum of local Universities, as well serving as a home for in-service training for a sustainable training model. The TAG also recommended addressing gaps in the implementation of the Integrated Disease Surveillance & Response (IDSR) framework while rolling out Collaborative Surveillance (CS) in a phased manner and simplifying the tools that are used to measure emergency preparedness.

? How can AFRO strengthen its existing systems and programs in emergency preparedness and response?

 TAG recommends strengthening collaboration with African Universities, addressing gaps in the IDSR and simplifying preparedness tools, among others.



Dr Thierno Balde, Dakar Hub Coordinator, WHO AFRO

¹African Volunteer Health Corps – Strengthening & Utilizing Response Groups for Emergencies

Session	Topline Recommendation
1. Global policy developments in emergency preparedness and response	<p>Intergovernmental Negotiating Body (INB) & International Health Regulations (IHR)</p> <ul style="list-style-type: none"> 1.1. Enhance African Member State representation in negotiations 1.2. Address sustainable financing (Article 20) <p>Pandemic Fund</p> <ul style="list-style-type: none"> 1.3. Optimize the role of co-investors 1.4. Strengthen Pandemic Fund support to African Member States through the Joint Emergency Action Plan (JEAP) 1.5. Address One Health challenges
2. Sustainable health workforce for emergencies	<ul style="list-style-type: none"> 2.1. Enhance sustainability and retention of health workforce 2.2. Streamline coordination for effective emergency response 2.3. Promote innovation in emergency workforce management 2.4. Consider session at next TAG meeting addressing health system linkages
3. Immunization in humanitarian and emergency settings	<ul style="list-style-type: none"> 3.1. Enhance integration of WHO/AFRO emergency and immunization programmes 3.2. Advocate for streamlined regulatory processes for vaccine review 3.3. Enhance local capacity for vaccine and countermeasure development 3.4. Support implementation of IA2030 outbreak task team recommendations 3.5. Take urgent action to address regional measles outbreaks
4. Measuring preparedness	<ul style="list-style-type: none"> 4.1. Harmonize regional and continental preparedness tools 4.2. Enhance clarity and feasibility of indicators 4.3. Expand stakeholder engagement 4.4. Prioritize regional preparedness research 4.5. Continue strengthening regulation
5. Collaborative surveillance	<ul style="list-style-type: none"> 5.1 Support Member States to strengthen the IDSR in areas where there are known challenges 5.2 Roll out Collaborative Surveillance in a phased manner based on Member State needs 5.3 Explore expansion of the use of artificial intelligence
6. Cross-cutting	<ul style="list-style-type: none"> 6.1. Explore a joint TAG with Africa CDC in recognition of importance of WHO/Africa CDC collaboration

Way Forward

The next meeting of the TAG is slated to take place in the fourth quarter of 2024. In the meantime, implementation of recommendations is underway, together with defining the key metrics to measure progress. The TAG is expected to be a key instrument for the next RD to advise on emergency preparedness and response.

About This Report

This report shares the recommendations and discussions in greater detail for reference by meeting participants and with the broader global health and development community



Dr Deoraj Caussy, TAG Member



Dr Deo Nshimirimana, EPR-TAG Chair



From left to right: Dr Cheikh Tidiane Mbow Chief, TAG Member, Dr Bernice Dahn, TAG Member, and Dr Agnes Mahomva, TAG Member

Recommendations

Session 1: Recent EPR Global Developments

Intergovernmental Negotiating Body (INB) & International Health Regulations (IHR)

Context: At an extraordinary meeting of the World Health Assembly (WHA) in December 2021, WHO Member States agreed to establish an Intergovernmental Negotiating Body (INB) to draft and negotiate a new convention, agreement, or other international health instrument to strengthen pandemic prevention, preparedness and response. Meanwhile, WHO Member States agreed to embark on a process to amend the current International Health Regulations (2005). The Member State-led process was facilitated through the Working Group on Amendments to the IHR (2025) (WGIHR), which ran in parallel to the INB. In an historic development, the WHA/2024 agreed on 01 June 2024 to a package of critical amendments to IHR (2005), and made concrete commitments to completing negotiations on a global pandemic agreement within a year, at the latest. For the WHO African Region, this development aims to transform how countries prepare for and respond to pandemics. It is a fundamental advancement for a region where health systems often are on the brink of collapse due to inadequate resources, persistent outbreaks/epidemics, insecurity – including food insecurity, humanitarian crises, etc. The below recommendations made by the WHO/AFRO EPR-TAG aim to ensure Africa's voice is augmented at future INB deliberations and that Africa effectively implements IHR amendments.

1.1. Enhance African Member State representation in negotiations:

The importance of ensuring the voices of all African Member States are truly reflected and effectively represented in continued INB deliberations was emphasized. Moreover, it was deemed imperative to expand WHO's interactions in supporting countries throughout the negotiation process beyond Ministries of Health to the Heads of State, Regional Economic Communities (RECs) and civil society representatives.

- a. WHO/AFRO to work closely with Africa CDC to set-up a mechanism for training Member State negotiators to optimize their effectiveness & to establish a communications platform/forum, building on the mandate of the African Union through the New Public Health Order, to regularly brief all African stakeholders on INB deliberations collectively and obtain their views/insights to be reflected in future negotiations.
- b. WHO/AFRO to facilitate opportunities for dialogue with other regions and countries whose perspective on the INB issues align with the African position e.g. through HEDPAC, a health development platform between the Africa and Caribbean Regions aimed at strengthening South-South partnership.
- c. WHO/AFRO to strongly advocate for African Union endorsed technical agencies as well as independent technical experts to be invited to support African Member States at INB deliberations at WHO/HQ.

1.2. Address sustainable financing (Article 20):

It is planned that the package of IHR amendments will enter into force in August 2025. In the meantime, the terms of reference for the mechanism to coordinate *sustainable financing* (Article 20) is to be developed. WHO/AFRO and partners to highlight the role of financing initiatives such as the Lusaka Agenda on the future of Global Health Initiatives, The Pandemic Fund, African Epidemics Fund, etc., as mechanisms to provide flexible financing for pandemic preparedness and response in Africa. Moreover, WHO/AFRO and partners to clearly stipulate the expected role of such financing initiatives in implementing Article 20 and similar articles under the anticipated pandemic agreement.

Pandemic Fund

Context: The Pandemic Fund provides a dedicated stream of additional long-term financing to strengthen critical pandemic prevention, preparedness, and response capabilities in low- and middle-income countries through investments and technical support at the national, regional and global levels. The World Bank serves as the Pandemic Fund's Trustee and host the Secretariat, which includes technical staff seconded from the WHO. The Governing Board appointed a Technical Advisory Panel, chaired by the WHO, with leading world experts to assess and make recommendations to the Governing Board on the technical merits of proposals for funding, ensuring linkages to IHR, as part of the broader global PPR architecture. The below recommendations made by the WHO/AFRO EPR-TAG aim to ensure equitable pandemic financing to the WHO African Region which seriously considers African country needs.

1.3. Optimize the role of co-investors:

The need to clarify, enhance (through provision of training opportunities) and optimize the role of co-investors to strengthen the effectiveness of The Pandemic Fund for the vested interests of Africa was highlighted throughout EPR-TAG deliberations. In this light:

- a. In close collaboration with the Pandemic Fund Secretariat, WHO/AFRO to organize a Pandemic Fund side event at the upcoming WHO Regional Committee for Africa to raise awareness and advocate for amplifying the voices of the African sovereign co-investors and their constituencies. The Pandemic Fund Secretariat to finance the participation of the Pandemic Fund Governing Board Members representing Africa (i.e. Democratic Republic of Congo, Rwanda & Senegal) to attend this side event and introduce themselves to WHO/AFRO Member States.
- b. In close collaboration with relevant partners, WHO/AFRO to identify other platforms, such as side events on the margins of the African Union Summits, to make the case for co-investors on the African continent and explore modalities for selecting countries to represent the African region on the Pandemic Fund Governing Board at its planned reset in May 2025.

1.4. Strengthen Pandemic Fund support to African Member States through the Joint Emergency Action Plan (JEAP):

Note was taken that only 5 countries within Africa benefited from the Pandemic Fund's first call for proposals. Note was also taken that, under the JEAP umbrella, Africa CDC and WHO collectively supported African Member States in their applications for the second call for proposals. To further strengthen Pandemic Fund support to Member States, and under the JEAP umbrella, the following is proposed:

- a. WHO & Africa CDC to liaise with successful recipient countries of Pandemic Fund resources to learn from, document and communicate success stories to encourage additional countries to consider adopting effective practices for securing funding.
- b. For future Pandemic Fund applications, WHO and Africa CDC to advocate for a better understanding of the Pandemic Fund's catalytic nature of its resources and the necessity for partners to co-finance submitted proposals for sustainability of the funded activities.
- c. To ensure the sustainability of financing preparedness, WHO & Africa CDC to encourage governments to allocate domestic resources for financing preparedness which should be clearly reflected in the co-investment section of the Pandemic Fund proposals.

1.5. Address One Health challenges:

Note was taken of the limitations/challenges pertaining to the One Health approach and the need to address such challenges in order to strengthen the overall pandemic preparedness and response landscape within the Region. WHO/AFRO to review all Pandemic Fund proposals and list in thematic groups the various challenges countries face in implementing One Health. Thereafter, WHO and Africa CDC to engage partners to resolve these issues.



Group photo with meeting participants

Session 2: Sustainable Workforce for Emergencies

Context: The WHO/AFRO region is facing an increasing complexity and frequency of public health emergencies ranging from disease outbreaks to humanitarian crises, majorly driven by increasing zoonotic transmission, climate-related changes and forced displacements due to conflict and natural disasters. Amidst the complexity of the emergency profile of the region, Africa faces a significant shortage of healthcare workers, below the recommended WHO standards, further exacerbating the challenge of responding to health emergencies. COVID-19 further exposed gaps in member states capacities to prepare for and respond to emergencies. Before the pandemic, only four countries in the African Region had demonstrated sustainable capacity gradings for emergency human resources (Joint External Evaluation 2019). There is therefore an urgent need to strengthen health emergency response capacities in countries to tackle the increasing emergencies and in anticipation of future pandemics. The below recommendations made by the WHO/AFRO EPR-TAG aim to ensure national capacities are bolstered to better prepare for and respond to emergencies through ensuring sustainable health emergency workforce.

2.1. Enhance sustainability and retention of health workforce:

Sustainability and retention require a holistic strategy that integrates supportive policies, education, certification, and practical training opportunities in collaboration with African academic institutions. Expansion of collaboration to involve academia for integration of training of AVOHC-SURGE in preservice curricula of African Universities, as well as establishment of a consortium of these institutions to offer AVOHC-SURGE training as a certified Continuous Professional Development (CPD) course was discussed. These initiatives would facilitate standardization of emergency training and foster a collaborative learning environment across the continent, as well as guarantee that upcoming healthcare professionals are equipped with the necessary emergency skills right from the beginning of their career. In this context, it is recommended that:

- a. WHO/AFRO collaborate with the academia to develop standard pre-service and in-service training curricula for AVOHC-SURGE and advocate for the integration of these training modules into the pre-service curricula of African universities.
- b. WHO/AFRO to establish a consortium of training institutions to offer AVOHC-SURGE training as a certified Continuous Professional Development (CPD) course.
- c. WHO/AFRO to work closely with Africa CDC to expand the scope of the AVOHC-SURGE program to include community health workers, a diaspora expert pool, and specialists in Public Health Emergency Management (PHEM) and Stop Transmission of Polio (STOP) programs to enhance regional emergency response capabilities.
- d. WHO/AFRO to work closely with Africa CDC to expand practical experience through simulation exercises and real-world outbreak response (deployments) to enhance hands-on training, further strengthening their readiness and response capabilities in emergencies.

2.2. Streamline coordination for effective emergency response:

Effective coordination is essential for a streamlined and unified response to health emergencies. Synchronizing various initiatives related to the emergency health workforce at both global and regional levels will ensure that efforts are not duplicated, and resources are optimally utilized, thereby maximizing the impact at the country level. Furthermore, the engagement of multiple sectors beyond health remains critical to ensure a holistic approach in addressing the diverse dimensions of evolving public health emergencies in the region. WHO/AFRO is urged to play a leading role in facilitating these engagements and ensuring that standard operating procedures are developed, well understood and effectively implemented before and during emergencies, in alignment with existing WHO/AFRO and Africa CDC agreements and global initiatives such as the Global Health Emergency Corps (GHEC) and Emergency Medical Teams (EMT).

- a. WHO/AFRO to assist countries to better understand and engage with the Global Health Emergency Workforce (GHEC) and other health workforce initiatives at global and regional level by clarifying roles and their alignment with the regional initiatives such as AVOHC-SURGE for impact at country level.
- b. WHO/AFRO to support member states to engage comprehensively with various stakeholders, including the military, legal, agricultural, and environmental sectors. This engagement will help clarify roles and responsibilities and promote cross-sector learning and collaboration.

2.3. Promote innovation in emergency workforce management:

The innovative use of information and communication technology (ICT) can significantly mitigate workforce shortages and enhance operational efficiency in emergency response. Task shifting facilitated by ICT can help bridge critical gaps in human resources by empowering less specialized workers to perform specific tasks effectively under guidance. Establishment of a secure and accessible workforce database can facilitate availability of vital information for making prompt decisions during emergencies, including rapid deployment of the most suitable personnel to areas where their expertise is most needed. In addition, ICT can support continuous professional development and the maintenance of communities of practice. These platforms allow for ongoing learning and knowledge sharing among health professionals, which is essential for upholding high standards of care and readiness in emergency response. In this light,

- a. WHO/AFRO to support the development of a robust, secure and accessible regional workforce database. The platform should be interoperable across the different initiatives and regional institutions (WHO, Africa CDC, WAHO, EAC, ECCAS etc.). The database should contain comprehensive information about healthcare professionals, including their qualifications, skills, and experience.
- b. WHO/AFRO to organize learning forums such as webinars and virtual conferences, to update responders on the latest practices and innovations in emergency management, ensuring their preparedness to confront new challenges as they arise.

2.4. Consider session at next TAG meeting addressing health system linkages:

WHO/AFRO to explore holding a session at the next TAG to discuss the linkages and coordination of health workforce for emergencies and the broader health care system.



From left to right: Dr Abdou Salam Gueye, Regional Emergency Director, WHO AFRO, Dr Ibrahima Sy, Minister of Health and Social Action, Senegal, Dr Jean Marie Vianny Yameogo, WHO Representative, WHO Senegal

Session 3: Immunization in Humanitarian Settings

Context: The African Region has seen a surge in outbreaks of vaccine-preventable diseases in recent years. Among the 131 ongoing emergencies and outbreak, more than 50% are vaccine-preventable, including diseases such as cholera, polio, measles, yellow fever and diphtheria. Vaccination is also a key component of the Health Emergency Preparedness & Response (HEPR) architecture, as part of community protection and medical countermeasures. When an emergency occurs and it is vaccine-preventable, the emergency response and immunization programs should be aligned, working closely together with a common goal to stop the outbreak, reducing morbidity and mortality. Lack of appropriate coordination can lead to delays in response activities, including immunization.

Unfortunately, timely response for large vaccination campaigns for many epidemic-prone pathogens is frequently delayed. The proportion of outbreaks with internationally supported outbreak response vaccination campaigns that met targets for timely responses declined in 2022 to 18%, compared to 28% in 2021 and 25% at baseline. Measles and cholera outbreak responses accounted for over 70% of these campaigns. Given the likelihood that many diseases that can be prevented with targeted vaccination will appear in new areas in the future, disease control programs need to be able to adapt to a changing environment, including by detecting and responding to outbreaks quickly and by putting appropriate preventive measures in place, including immunization. Unfortunately, there are often challenges to instituting this timely response, such as gaps in surveillance and laboratory capabilities, limited workforce, lack of funds, inaccessibility, and delays in the arrival of vaccines. Given the importance of immunization during emergencies, there is considerable scope for improving timeliness to response to vaccine-preventable disease outbreaks.

3.1. Enhance integration of WHO/AFRO emergency and immunization programmes:

When a vaccine-preventable disease emergency occurs, the emergency response and immunization programs should be aligned, working closely together with a common goal to stop the outbreak and morbidity and mortality. Successful response requires careful coordination between the WHO/AFRO Emergency Programme and the Immunization Programme at the regional and country levels. Lack of appropriate coordination can lead to delays in immunization activities.

- a. WHO/AFRO to support the development of an outbreak response (for immunization) team at the regional level, jointly led by EPR and VPD programmes that participates in the incident management system team structure and can fully utilize emergency protocols. This collaborative response should also be supported at the country level.
- b. WHO/AFRO to strengthen the partnership with the Africa CDC by expanding immunization activities under the Joint Emergency Action Plan (JEAP), including joint simulations, resource mobilization, and capacity-building initiatives to enhance regional response capabilities.

3.2. Advocate for streamlined regulatory processes for vaccine review:

Since the late 1980s, the World Health Organization (WHO) has provided a safety, quality, and efficacy assurance assessment process, now known as “WHO prequalification” (PQ), to ensure vaccines and other health products meet acceptable standards and to facilitate the regulatory review and uptake of health products in low-resource settings. However, the COVID-19 pandemic highlighted the Region’s vulnerabilities in ensuring access to vital drugs, vaccines, and health, including the relatively long process of WHO PQ, especially during outbreaks. Additionally, in the absence of a Public Health Emergency of International Concern (PHEIC) there are challenges with the use of the emergency use listing procedure. The lack of WHO authorization also limits the ability of global procurement systems for low-income countries (e.g., mpox). Globally, mpox vaccines have been used widely in high-income countries and are licensed by various stringent regulatory authorities, including the US FDA and EMA, nevertheless, the African Region is unable to access vaccines in the absence of an emergency procedure for procurement and distribution.

- a. WHO/AFRO to advocate for and support the development of improved and streamlined regulatory processes at national, regional, and global levels to guide and accelerate the review of products.
- b. WHO/AFRO to work closely with WHO Headquarters to develop practical solutions for situations where vaccines without prequalification are needed to address an outbreak (e.g., mpox) in the absence of a declared PHEIC. This includes advocating for regulatory flexibility and expedited review processes in such scenarios and development of a mechanism for access to vaccines for member states.

3.3. Enhance local capacity for vaccine and countermeasure development:

Increasing equity and access to vaccines and other countermeasures is a key priority and it is important that member states in the region have access to efficient and harmonized regulatory pathways that ensure high-quality products and market access. WHO/AFRO to collaborate with Africa CDC, partners, and Member States to build local research and manufacturing capacity for developing and producing medical countermeasures, e.g., vaccines, diagnostics, therapeutics. This collaboration should also focus on developing a roadmap with practical steps toward establishing research and manufacturing facilities in countries in the African region.

3.4. Support implementation of IA2030 outbreak task team recommendations:

Addressing outbreaks and emergencies is one of the strategic priorities of the Immunization Agenda 2030, with the objectives to ensure preparation for, detection of and rapid, high-quality response to vaccine preventable disease outbreaks and establish timely and appropriate immunization services during emergencies, and in communities affected by conflict, disaster and humanitarian crisis. An IA2030 outbreaks task team was formed to identify bottlenecks to a timely immunization response, which are directly relevant to the African Region. Bottlenecks included (but not limited to) complex and parallel funding mechanisms, complex applications for vaccine doses, emergency vaccine stocks and funding at the country level.

- a. WHO/AFRO to support the recommendations of the IA2030 Outbreaks Task Team and participate in the global level subgroups/task teams.
- b. WHO/AFRO to advocate for partners, such as Gavi, the vaccine alliance, to revise and simplifying outbreak funding mechanisms, processes to request vaccine doses, and to ensuring emergency stock availability.

3.5. Urgent action to address regional measles outbreaks:

During the COVID-19 pandemic, the number of cases of measles increased more than 400% largely reflecting the accumulation of children who missed routine vaccinations against measles and other vaccine-preventable diseases. Large or reoccurring outbreaks in the region persist in countries where there are large pockets of under immunised children with consistently high mortality. The TAG expressed concern about the lack of emphasis on the ongoing measles outbreaks in the region and the number of deaths among children. It is clear that great efforts and investments are needed from the health authorities and their partners to increase immunisation coverage stop the endless cycle of epidemics. WHO/AFRO to support the recommendation made by the RITAG committee that the WHO RD approach the WHO Director General in conjunction with the African Union and heads of state requesting the convening of an IHR Emergency Committee on measles to review the evidence and consider if the current situation constitutes a Public Health Emergency of International Concern (PHEIC).



Session 4: Immunization in Humanitarian Settings

Context: The EPR-TAG acknowledges the complexity of measuring preparedness and appreciate efforts being made to measure outcome and impact of preparedness interventions, which should look at the broader preparedness of the systems, minimize the burden on countries, foster collaboration between sectors and strengthen accountability of governments regarding their preparedness commitments. The following recommendations were made.

4.1. Harmonize regional and continental preparedness tools:

There are currently a wealth of tools available to support countries in measuring preparedness. The TAG recognizes the utility of these tools and sees an opportunity to streamline to reduce duplication and optimize Member State and WHO investments in measuring preparedness. In this light:

- a. WHO/AFRO to work with Member States to harmonize, streamline and simplify preparedness tools for measuring outcomes and impact. This effort should build on experiences and collaborative approaches from implementation of existing tools while using innovative performance scorecards to strengthen high-level accountabilities.
- b. WHO/AFRO to review other continental preparedness instruments and efforts that are beyond the national level and establish how they impact on the national level (R&D, legal countermeasures, continental trade policies regulatory police, among others).

4.2. Enhance clarity and feasibility of indicators:

The EPR-TAG recognizes the importance of moving from 'ticking the box' to Impact Measurement. However, there is need to clearly define measurable indicators and their data sources, ensuring that the proposed indicators cover all hazards, and integrated in the existing national monitoring and evaluation systems within the broader health system. In this light, WHO/AFRO to make recommendations to improve clarity, feasibility and measurability of preparedness indicators.

4.3. Expand stakeholder engagement:

In efforts to strengthen the measurement of preparedness, WHO/AFRO to facilitate and encourage engagement of communities. WHO/AFRO to also prioritize continuous cross-border collaboration, including decentralising cross-border collaboration and dialogue around preparedness measurement to the subnational level.

4.4. Prioritize regional preparedness research:

Research on regional preparedness is critical to strategically inform preparedness activities, yet there remain key gaps in the research landscape. Working with Africa CDC and other partners including academic institutions, WHO/AFRO-EPR to spearhead regional preparedness research starting with the mapping of existing research infrastructure such as pathogens and clinical trials of new products such as vaccines.

4.5. Continue strengthening regulation:

The EPR TAG recognizes the need to strengthen legal and regulatory aspect of preparedness as these have proven to be major barriers of access to medical countermeasures and health services in health emergencies. The TAG also recognizes WHO/AFRO's existing efforts in this area, including WHO/AFRO's contributions to the revision and adoption of IHR legal instruments in many Member States. Building on existing efforts, WHO/AFRO to continue advocating for and providing Member States with technical assistance on strengthening legal and regulatory aspects of preparedness.



From left to right: Dr Jean Marie Okwo-bele, Dr Rick Bright, TAG Member

Session 5: Immunization in Humanitarian Settings

Context: To strengthen surveillance, WHO recently introduced Collaborative Surveillance (CS) as one of five components of strengthen the global architecture for health emergency preparedness, response, and resilience (HEPR). As WHO/AFRO considers the operationalization of CS in the African Region, the EPR-TAG recognizes the importance of considering and building upon existing efforts led by African Member States. Namely, at the 69th and 72nd WHO Regional Committee Meetings, African Health Ministers adopted the Regional Strategy for Integrated Disease Surveillance and Response 2020–2030 and endorsed a renewed Regional Strategy for Health Security and Emergencies 2022–2030. WHO/AFRO is implementing the Transforming African Surveillance Systems (TASS) flagship initiative to support Member States in operationalizing these strategies and strengthening IDSR. The EPR-TAG recognizes the active role of WHO-AFRO in spearheading and promoting IDSR as an integrated surveillance platform. However, global health security is fast evolving, bringing new challenges and necessitating the IDSR to be updated. Towards this end, the TASS flagship and CS framework are innovative and will make surveillance more comprehensive. However, they also bring news programmatic issues to be addressed before being routinely adopted. The recommendations are as follows.

5.1. Support Member States to strengthen the IDSR in areas where there are known challenges:

IDSR has been implemented in the African region for over two decades but according to country surveys and consultations, there are still major challenges regarding financing, training/capacity, coordination and digitalization, particularly at the subnational level.

- a. WHO/AFRO to prioritize strengthening the ISDR with strategic targeting of the weakness have been identified so far.
- b. WHO/AFRO to continue utilizing TASS as means to strengthen ISDR by adding a laboratory component for genomic analysis.

5.2. Roll out Collaborative Surveillance in a phased manner based on Member State needs:

CS offers the added advantage of addressing the One Health component. WHO/AFRO to roll out CS in a phased manner as a pilot project depending on the needs of the Member States.

5.3. Explore expansion of the use of artificial intelligence:

Artificial intelligence presents a wealth of opportunities for strengthening surveillance systems across the WHO African region. In keeping with the spirit of innovation, the use of artificial intelligence should be explored through IDSR, TASS and CS to support surveillance personnel in enhancing and simplifying their tasks.



From left to right: Dr Adamou Mustapha, Director General of Health, Niger, Dr Yam-madji Aliace Djitaingar, Ministry of Health, Chad

Cross-Cutting

- 6.1. Explore a joint TAG with Africa CDC in recognition of importance of WHO/Africa CDC collaboration:**
The EPR-TAG recognizes of the multiplicative beneficial effect of the close collaboration between Africa CDC and WHO (AFRO and EMRO), under the Joint Emergency Action Plan (JEAP) and beyond. In this light, the TAG recommends that both organizations explore an approach to have a joint TAG for EPR, building on the WHO/AFRO TAG model.



Dr Cheikh Tidiane Mbow, TAG Member

Summary of Discussions by Session

Session 1: Recent EPR Global Developments

Presentations

- **Strengthening Health Emergency Preparedness, Response and Resilience (HEPR)**

Dr Nana A. Mensah Abrampah, Technical Officer, Strategic Planning and Partnerships, WHO/HQ:

Dr Mensah Abrampah provided an overview on the initiatives underway to [strengthen the global architecture for HEPR](#): an overview on the Member State driven processes to reform the governance of HEPR at the global level; new mechanisms to secure sustainable financing for health emergency preparedness and response; and a synopsis of the five Cs (emergency coordination, collaborative surveillance, community protection, access to counter-measures, and safe & scalable care). TAG members were informed that the five Cs guide the strengthening of the national, regional and global operational systems of HEPR. The presenter also outlined the steps to be taken at the national level to accelerate the implementation of the HEPR framework in order to meet the pressing needs of communities affected by, and at risk of, health emergencies.

- **INB & WG-IHR: The Place of Africa in Global Health Governance**

Dr Abdou Salam Gueye, Regional Emergencies Director, WHO/AFRO:

Dr Gueye highlighted the importance of Africa actively participating in global health governance structures, such as the INB and WG-IHR, given the continent brings a unique perspective and set of experiences that are vital for creating equitable and effective health policies. He emphasized that central to the negotiations for a new global health framework are several contentious issues that reflect the deep divides and complex challenges in achieving true health equity on a global scale. The Pandemic Accord represents a critical opportunity to influence global health policy that addresses Africa's unique needs and challenges and it is imperative that African Member States present a unified stance and actively participate in negotiations for equitable access, technology transfer, and financial support. Finally, Africa must remain amenable to some compromise to ensure the successful conclusion of negotiations.

- **Overview of the Pandemic Fund and its Governing Board**

Dr Dalia Samhouri, Lead Health Specialist, The Pandemic Fund Secretariat:

Dr Samhouri informed participants that the [Pandemic Fund](#) is a collaborative partnership among donor countries, co-investor countries, foundations, and civil society organizations (CSOs), hosted by the World Bank with WHO as technical lead. The governing and administrative bodies of the Pandemic Fund are the [Governing Board](#), the [Technical Advisory Panel](#), the [Secretariat](#), and the [Trustee](#). The Governing Board, comprised of 21 voting members, reflects an equal balance of sovereign “contributors” (donors) and sovereign “co-investors” (countries that could receive funding) as well as a voting seat for philanthropies/foundations and two (2) voting seats for CSOs. All Governing Board Members have a voice in shaping the Pandemic Fund. Three (3) board members – DRC, Rwanda and Senegal – represent Member States in the WHO African Region.

“The endorsement by Member States of IHR amendments provides a major boost to cross the Pandemic Accord finish line.”

– Dr Abdou Salam Gueye, WHO

“The Pandemic Fund has the ability to provide long-term financing to strengthen PPR capabilities in African countries... all of us have a role to advocate for a well-financed Pandemic Fund.”

– Dr Deo Nshimirimana, EPR-TAG Chair

Key Themes Arising from Discussion

1. Importance of African countries presenting a unified stance and one voice at INB negotiations, while being open to compromising to ensure successful conclusion of negotiations.
2. The role that global health financing initiatives should play in providing flexible funding for pandemic preparedness and response.
3. Importance of African Member States being fully aware of who is representing Africa on the Pandemic Fund Governing Board (i.e. DRC, Rwanda and Senegal) and ensuring regular dialogue/interactions between the African Governing Board Members and all African Member States.
4. Role of the IHR amendments, recently adopted at WHA/2024, in improving the ability of countries to prepare for, detect and respond to PHEICs. It was noted that some amendments do not constitute game-changing reforms – especially concerning low-income countries' demands for equity and financial assistance. Africa must continue to raise its voice on global platforms to promote fairness and further strengthen global health security by fostering more inclusive, resilient, adaptive and equitable health governance.
5. Potential challenges with implementing IHR amendments, which will require substantial investments made in Africa's health infrastructure. Across the Region, health infrastructure is uneven, with major gaps in coverage and quality in rural areas.



Dr Agnes Mahomva, TAG Member

Session 2: Sustainable Workforce for Health Emergencies

Presentations

- **Current Status of Health Emergency Workforce Initiatives in Africa**

Dr Fiona Braka, Program Manager for Emergency Response, WHO/AFRO:

Dr Braka provided an overview of initiatives to strengthen the health emergency response workforce in Africa, with a focus on AFRO's initiative implemented in collaboration with Africa CDC, AVoHC-SURGE. She highlighted the region's deficit of 4.2 million healthcare workers and the impact of the COVID-19 pandemic in exposing these gaps. Dr Braka shared notable achievements of AVoHC-SURGE including the completion of 28 scoping missions, onboarding training in 19 countries, the enrollment of 1,732 experts. She also discussed challenges including inadequate mobilization of in-country resources, multiple emergency workforce databases, delays in releasing trained members to support other states, and coordination issues between different levels of government.

- **Alignment of Regional and Global Initiatives**

Dr Scott Dowell, Lead, Global Health Emergency Corps (GHEC):

Dr Dowell discussed the Global Health Emergency Corps (GHEC), sharing its vision as a globally connected body of health emergency professionals from all countries, equipped with standardized training that can effectively collaborate during international health crises. He emphasized how AVoHC-SURGE aligns with the GHEC model and how GHEC encourages regional and national level innovation.

- **Kenya's Experience in Workforce Development for Emergencies**

Dr Elizabeth Nzioka, Emergency Preparedness and Response Coordinator, Ministry of Health, Kenya:

Dr Nzioka shared Kenya's multi-sectoral approach in establishing AVoHC-SURGE, with 120 experts trained and significant contributions from various ministries. Over the last two years, the teams have responded to multiple emergencies in Kenya and more than 70% of officers leading and participating in public health emergency response at national level are members of the AVOHC-SURGE team. The initiative has strengthened national emergency response capabilities.

- **Niger's Experience in Workforce Development for Emergencies**

Dr Adamou Mustapha, Director General of Health, Niger:

Dr Mustapha highlighted Niger's progress in implementing SURGE, emphasizing strong government commitment and improved epidemic response coordination. Niger was among the first five countries to pilot the SURGE initiative, which has led to a rapid confirmation of epidemics, improved data quality, and better coordination with security forces in the insecure areas. Recommendations for further improvement include continuous support for partner alignment, selection of additional experts, and maintaining swift deployment times.

“We should turn the brain drain issue into a brain gain.”

– Dr Banda Khalifa, EPR-TAG Member on engaging African experts in diaspora to contribute to emergency response in their countries of origin

Key Themes Arising from Discussion

1. Importance of tailoring emergency workforce efforts to the specific needs of each country
2. Success stories from Niger and Kenya, and the importance of establishing communities of practice for sharing knowledge and strategies.

3.	Importance of addressing both technical and financial sustainability by mapping initiatives and developing databases to manage and train health emergency workforces at national and regional levels.
4.	Value of pre-service and in-service training, integrating emergency response training into curricula, and finding strategies to retain trained health workers within their home countries.
5.	Potential of leveraging the African diaspora to address challenges with retention.
6.	Challenges around coordination between various sectors (military, legal, agriculture) and synchronizing global and regional health workforce initiatives to improve country-level impact.
7.	Potential of leveraging digital tools and ICT to mitigate workforce shortages, improve efficiency, and support professional development and community engagement in emergency response.

“No one can stop an outbreak on their own”

Prof. Helen Rees, EPR-TAG Member, on the importance of multi-sectoral collaboration and coordination



From left to right: Dr Rick Bright, TAG Member, Dr Banda Abdallah Khalifa, TAG Member

Session 3: Immunization in Humanitarian and Emergency Settings

Presentations

- **Immunization in Emergencies and Humanitarian Settings: Addressing Challenges in Responding to Outbreaks of Vaccine-Preventable Diseases**

Dr Reena Doshi, WHO/AFRO and Dr Benedict Millinchip, WHO/HQ:

Dr Doshi and Dr Millinchip discussed the Immunization Agenda 2030 (IA2030) and its vision for emergency vaccination to combat VPD outbreaks in the African Region. They emphasized the need for timely outbreak immunization campaigns despite challenges such as regulatory issues, vaccine supply, and complex funding mechanisms. They highlighted best practices in emergency immunization, such as early Ebola and yellow fever vaccination campaigns, and recommended improving access to diagnostics, leveraging routine immunization stocks, pre-positioning buffer stocks, and using in-country funds for outbreak response. Recommendations included fast-tracking regulatory processes, fostering R&D for new technologies, and better coordination with Africa CDC to update countries on vaccine developments.

- **Risk of Measles Epidemics during the Humanitarian Crisis in South Sudan**

Dr Sylvester Maleghemi, WHO/South Sudan:

Dr Maleghemi presented on the increased risk of VPD outbreaks, particularly measles, due to the ongoing humanitarian crisis and the influx of refugees from Sudan. He noted the insufficient efforts in routine immunization and challenges such as disrupted health services, inadequate resources, and vaccine supply issues. The presentation highlighted the need for improved data analytics, better integration of health services, and addressing vaccine supply and delivery challenges. Dr Maleghemi sought advice on best practices and partnerships to tackle these issues.

- **Chad's Experience of Vaccination in Refugees' Camps**

Dr Yam-madji Aliace Djitaingar, Director General of Health, Ministry of Health of Chad:

The presentation detailed the ongoing humanitarian crisis in Chad, hosting over 2.2 million refugees, with a significant influx of Sudanese refugees. The country faces numerous outbreaks, including measles, yellow fever, and dengue, with campaigns organized to combat these diseases. The situation analysis suggested a high risk of cholera outbreaks, and the country developed an emergency vaccination response plan requiring significant funding, though only 10% of the needed funds were mobilized. The use of local population estimates for vaccines underscored the need to cover both returnees and refugees. Challenges include limited resources, human resource capacity, and the ongoing crisis in Sudan, which requires bold actions to improve vaccination efforts and reduce VPD outbreaks.

“For vaccines in humanitarian settings fast-tracking of existing processes is essential”

– Prof. Helen Rees, EPR-TAG Member

Key Themes Arising from Discussion

1. The need to update the SAGE guidelines on vaccination in humanitarian settings, which are currently outdated but still helpful.
2. The urgency of addressing the rising cases of measles across the Region which is not receiving sufficient attention and resources relative to its major health impact.
3. Common challenges in speeding up diagnostics, regulatory approval, and replenishing vaccine stocks. Importance of fast-tracking regulatory processes and streamlining complex funding mechanisms.

4.	Necessity of involving communities in data collection and response efforts to build trust and improve surveillance.
5.	Significant hesitancy among adults during outbreaks, necessitating strategies to increase vaccine uptake.
6.	Importance of addressing vaccine shortages and the timely shipment of vaccines to avoid expiration, advocating for a paradigm shift in donation timelines.
7.	The need for local vaccine manufacturing and leveraging new technologies to enhance emergency response capabilities.
8.	The need for clear roles between immunization and emergency programs, collaboration with Africa CDC, and better coordination of funding sources.
9.	The critical role of community empowerment in ensuring resilience and adherence to vaccination interventions, considering specific needs and involving communities as champions of these efforts.

“There is a need for clear roles and responsibilities between the [WHO/AFRO] EPR and immunization programs”
Prof. Rebecca Martin, EPR-TAG Vice Chair



From left to right; Dr Abdou Salam Gueye, Regional Emergency Director, WHO AFRO, Dr Deo Nshimirimana, TAG Chair, Dr Matshidiso Moeti, Regional Director, WHO AFRO, Dr Rebecca Martin, TAG Vice Chair

Session 4: Measuring Preparedness

Presentations

- **Measuring Preparedness in WHO African Region**
Dr Dick Chamla, EMP/EPR, WHO/AFRO, and Dr Charles Njuguna, CRS/EMP, WHO/AFRO:

Dr Chamla and Dr Njuguna highlighted the preparedness M&E framework and the need for demonstrating the outcome and impact of preparedness interventions. They shared recent efforts focused on identifying key outcome and impact measurements related to surveillance, detection, response capacity, and the economic impact of outbreaks. The TAG members were asked to advise on the scope of indicators, linkages with global institutions, and strategies to advocate for increased investments in emergency preparedness.

- **Public Health Emergency Preparedness Measurements – Ethiopia’s Experience**
by Dr Feyessa Regasa, Head, National IHR-OH Office, Ethiopian Public Health Institute (EPHI):

Dr Regasa showcased Ethiopia's progress against key preparedness measurements such as JEE, SPAR, and NAPHS implementation. Significant improvements were observed in JEE and SPAR scores from 2016 to 2023, with enhanced capacities and implementation rates. Dr Regasa shared challenges including data sharing between sectors, measuring preparedness at sub-national levels, lack of standardized M&E frameworks, and insufficient financing.

- **Measuring Preparedness in DRC: Opportunities, Issues, and Challenges**
by Prof. Christian Ngandu, Director, Public Health Emergency Operations Center (PHEOC), DRC:

Prof. Ngandu detailed DRC's preparedness interventions, noting improvements in coordination and the development of a new NAPHS. However, challenges remain in data quality and emergency response at the local level. Prof. Ngandu highlighted that improving preparedness requires addressing local-level emergency response challenges, surveillance, and data quality issues, while leveraging opportunities in coordination and funding.

“The tools need to be made simpler to help Member States improve their capacities. Right now, we are not good at acting on the findings.”

– Dr Sani Aliyu, EPR-TAG Member

Key Themes Arising from Discussion

1. The need to simplify the tools used for measuring preparedness, such as SPAR and JEEs, to make them more actionable and relevant to Member States. This includes creating simple dashboards and making tools easier to use for better capacity building.
2. Importance of shifting focus from process-based assessments to measuring outcomes and impacts, including identifying a small number of robust indicators to track and ensure the data's validity and reliability.
3. Value and limitations of self-assessments, which can play an important role within learning networks to share experiences.
4. Concerns about the quality, validity, and reliability of data.
5. Need for all-hazards preparedness – critical to look at overall system readiness rather than disease-specific measures.

6. Need to enhance research preparedness and cross-sector collaboration, including regulatory, environmental, and climate sectors.
7. Critical role of political commitment and adequate domestic financing for implementing preparedness plans – with advocacy at the highest levels necessary.
8. Importance of community involvement in preparedness efforts and the need to integrate these efforts within existing frameworks for sustained impact.
9. Need to leverage ICT, improve data sharing, and ensure cross-border collaboration beyond immediate events.

“Having learning networks across the continent has been good practice to share experiences in collaborative and honest manner using self-assessments.”

– Prof. Wafaa El-Sadr, EPR-TAG Member



Dr Matshidiso Moeti, Regional Director, WHO AFRO



Dr Sani Aliyu, TAG Member



Prof Christian Ngandu, PHEOC Director, DRC



Dr Ebere Okere, TAG Member

Session 5: Collaborative Surveillance

Presentations

- **Advancing Collaborative Surveillance Implementation**

Dr Gerard Krause, WHO Berlin Hub:

Dr Krause discussed Collaborative Surveillance (CS) as a key component of Health Emergency Preparedness, Response, and Resilience (HEPR). CS aims to enhance public health intelligence by integrating surveillance activities and sharing information across systems. It builds on existing surveillance without disruption, encouraging the incorporation of non-traditional data sources. Challenges include funding, capacity, and joint strategies. WHO HQ supports regions with data standards and decision support tools.

- **Operationalizing Collaborative Surveillance in AFRO region**

Dr Etien Koua, Programme Area Manager, Health Information and Risk Assessment, WHO/AFRO:

Dr Koua emphasized the need for robust surveillance systems in the AFRO region. He discussed the Integrated Disease Surveillance and Response (IDSR) framework – which has been a key tool for surveillance in the Region over the past decades but continues to face challenges in financing, training, and digitalization. WHO/AFRO's flagship initiative Transforming African Surveillance Systems (TASS) has been successful in accelerating IDSR implementation. CS is a tool that can further strengthen IDSR by broadening stakeholder engagement and funding opportunities. Dr Koua emphasized that CS should build on IDSR without causing disruption, focusing on integration, capacity, and collaboration.

- **Prototyping Collaborative Surveillance Project Experience in Ethiopia with Resolve to Save Lives**

Dr Mesfin Wossen, Director of the Surveillance and Early Warning Directorate, Ethiopian Public Health Institute (EPHI):

Dr Wossen highlighted Ethiopia's nearly 15-year experience with IDSR and its National Public Health Emergency Operations Center (PHEOC) established in 2015. Ethiopia is developing a national roadmap for CS, starting with stakeholder mapping and prioritizing data products like preparedness and response plans. Efforts include modeling and forecasting using tools like WHO EWARS, aiming to ensure decision-making.

- **Prototyping Collaborative Surveillance Project Experience in Ethiopia with Resolve to Save Lives**

Cephas Sialubanje, Director, Strategic Planning and Information Management, Zambia National Public Health Institute ZNPPI:

Dr Sialubanje discussed Zambia's One Health Strategic Plan (2022-2026) and CS's role in its implementation. Zambia has developed various tools, such as ZEBRA and PHSIMS, to enhance surveillance and decision-making. Key focus areas include prevention planning, risk monitoring, event detection, and response adjustment. Prototyping efforts aim to integrate and utilize cross-sectoral data effectively.

“Surveillance is about communication, and communication needs a language. If we want data to be exchanged, we need a minimum, shared language.”

– Dr Gerard Krause, WHO Berlin Hub

“If we can't do simple stuff well, we cannot do complex stuff any better. At the front line, [we must] collect data accurately, in time, analyze, interpret, and use it to inform decision-making”

– Representative from African Public Health Foundation

Key Themes Arising from Discussion

1. Utility of surveillance to provide actionable information to save lives and prevent pandemics. It was discussed that effective surveillance should facilitate timely and accurate data collection, analysis, and use, emphasizing the need for clear objectives and practical applications.
2. Importance of integration with existing systems. CS should build on existing systems like IDSR without causing disruptions.
3. Challenges including data sharing within ministries, the complexity of new terminologies, and the potential burden on existing systems. Concerns were raised about the feasibility and effectiveness of CS, the need for phased implementation, and ensuring the concept is not overly complex for decision-makers.
4. Importance of tailoring surveillance interventions to each country's specific needs and capacities, allowing flexibility in implementation. Local data utilization and decision-making are crucial for the success of CS.
5. Questions around how CS can mobilize additional resources and unlock domestic funding. It was noted that ensuring sustainable financing and support for CS, especially in light of declining external funds, such as polio program funding, is critical for long-term success.
6. Importance of data standards and interoperability. It was emphasized that surveillance is about communication, which requires a common language for data exchange. The journey towards standardized data systems will be lengthy, but starting now is essential to ensure future compatibility and efficiency.

WHO Emergency Hub, Senegal



EPR Partners' Roundtable

Directly following the EPR-TAG meeting, on 18 July, WHO held a Partners' Roundtable. This was an opportunity for TAG members and local partners to visit the new WHO EPR Central & West Africa Emergency Hub in Diamniadio, learn about WHO and its partners' work across the West & Central African region, and share their perspectives.

Panel conversations took advantage of the presence of the EPR-TAG Members in Senegal – matching relevant EPR-TAG members with other key stakeholders and partners to explore lessons from West & Central Africa in addressing health emergencies and humanitarian crises. Conversations focused on strengthening African leadership and regional/global partnerships in emergencies and rethinking health interventions in protracted humanitarian settings.

Additionally, Prof. Thierno Balde (Hub Coordinator) provided a presentation on and tour of the WHO EPR Central & West Africa Emergency Hub. In his presentation, Dr Balde highlighted the Hub's mandate to support 27 Member States in West and Central Africa in emergency preparedness, detection, and response, while serving as a Centre of Excellence on Data Innovation and Public Health Intelligence. Dr Balde reviewed the progress since the Hub's inauguration in December 2023, including increased staffing, mobilized funding, and strengthened regional partnerships. He also detailed key achievements such as rapid deployment of emergency supplies, enhanced epidemic intelligence, and support for member states' preparedness and response activities. Looking to the future, Dr Balde emphasized the importance of strengthening the Hub's infrastructure, building emergency stocks, bolstering support to member states, and enhancing the Hub's visibility and utilization among partners.

Meeting Attendees



Annex A

TAG Members



Dr Deo Nshimirimana

EPR-TAG Chair
Burundi

Dr Deo Nshimirimana is a medical doctor who undertakes global health consultancies with a particular focus on immunization in emergency settings. His most recent assignment was an 18-month mission with the Bill & Melinda Gates Foundation where he advocated for the introduction of nOPV-2 in 6 African countries.

Dr Nshimirimana retired from WHO in 2018 as the WHO Representative in Senegal. Prior to serving in Senegal, he was the Director of the Emergencies, Immunization & Vaccine Development Cluster at the WHO Regional Office for Africa. He joined WHO in 1995 as the Polio Eradication Officer in the former Zaire for one-year where more than 1,000 children were paralyzed by polio in a small city called Mbuji-Mayi. Thereafter, he became the WHO/EPI Team Leader with the Inter-Country Programme Office for Central Africa covering 11 countries. In 1999, he moved to Cote d'Ivoire to become the WHO/EPI Team Leader with the Inter-Country Programme Office for West Africa where he stayed until taking up coordination of EPI programme at the regional level in 2002.

Prior to joining WHO, Dr Nshimirimana began my career as a medical officer in a variety of public health positions in Burundi. From district medical officer to regional medical chief. In 1989, he became the Director of Preventive Medicine, Ministry of Health, Burundi and from 1991 to 1994 he served as the Inspector-General of Health and Head of the planning department, Ministry of Health, Burundi.

After retirement in 2018, Dr Nshimirimana served as acting WHO Representative for 11 months in the Democratic Republic of Congo during the Ebola outbreak in North Kivu province and Ituri. Concurrently, he dealt with a massive measles outbreak (6,000 deaths); multiple cVDPV type 2 outbreaks in different provinces in addition to a cholera outbreak in Eastern DR Congo. Dr also became a WHO/AFRO Regional Immunization TAG Member effective January 2020.



Dr Rebecca Martin

EPR-TAG Vice Chair
USA

Dr Rebecca Martin, PhD, is the Vice President for Global Health and the Director of the Emory Global Health Institute at Emory University. Dr Martin is also a Research Professor in the Hubert Department of Global Health in the Rollins School of Public Health. As a member of the Woodruff Health Sciences Center leadership team, Dr Martin leads efforts to build and align the diverse, multidisciplinary global health infrastructure and foster global collaborations across Emory University and with global health organizations. She leads initiatives to foster interdisciplinary global health research and to build the next generation of global health leaders.

Previously, Dr Martin had a 24-year public health career at the US Centers for Disease Control and Prevention (CDC). From 2015 – 2021, she served as the director of CDC's Center for Global Health where she led CDC's global efforts to protect, detect and respond to improve health globally through science, policy, partnership, and evidence-based public health action. Dr Martin led CDC's global polio eradication efforts, accelerated disease control for vaccine-preventable diseases, introduction of new vaccines, and strengthening of immunization systems as the director of the Global Immunization Division at CDC from 2012-2015. Dr Martin was detailed from CDC to the World Health Organization's Africa and European Regional Offices for eight years, where she led the regional offices' immunization programs for east Africa and Europe, respectively. Dr Martin served in CDC Tanzania's Country Office as Program Director for Strategic Information and Human Resources for Health, from 2006-2008. As part of the President's Emergency Plan for AIDS Relief, PEPFAR, she led CDC's partnership with the Tanzanian government, to define and evaluate the HIV/AIDS epidemic and to develop initiatives to strengthen national capacity to respond to the epidemic.

Prior to joining CDC in 1997, she was an epidemiologist with the Maryland Department of Hygiene and Mental Health, in Baltimore Maryland, where she led the state's efforts to increase vaccination coverage, prevent and respond to outbreaks, and coordinated the introduction of Maryland's children's immunization registry.

Dr Martin received her Doctor of Philosophy from the Johns Hopkins Bloomberg School of Public Health in global health, with a focus in infectious disease epidemiology. Over the past 26 years, she has worked and partnered with countries, multilateral and development organizations and non-governmental organizations to reduce morbidity and mortality around the world. She has co-authored manuscripts, written book chapters, and developed strategic plans and global health guidelines.



Dr Agnes Mahomva

TAG Member
Zimbabwe

Dr Agnes Mahomva is a specialist public health physician with over 30 years' experience in managing and directing public health programs at local, regional and international level. She is the Zimbabwe Public Health Advisor to the President and Cabinet. Prior to this position she worked as Zimbabwe's Chief Coordinator in the Office of the President and Cabinet for the National Response to the COVID-19 Pandemic. During that time, she was responsible for a whole of government and whole of society national response coordination that focused on timely implementation of evidence based pandemic strategies and approaches including the roll out of the national vaccination program. Previously, she served as Zimbabwe's Permanent Secretary in the Ministry of Health and Child Care responsible for leading and managing the Zimbabwe Ministry of Health and Child Care as its CEO and Accounting Officer. Prior to this position she spent five years as the Zimbabwe National PMTCT Technical Program Coordinator.

Outside her time in government Dr Mahomva worked for the Elizabeth Glaser Pediatric AIDS Foundation in a number of positions. First as its Regional Medical/Technical Advisor for the Africa region, then as Technical Advisor for its Global Technical Policy Unit and finally as the Foundation's Zimbabwe Country Director.

Dr Mahomva is a member of the Zvitambo Institute of Maternal and Child Health Research board; The WHO Global Accelerator for Pediatric Formulations Network (GAP-f) Committee and the Africa REACH Leadership Council. She has also served in the past as a member of the Zimbabwe Public Health Advisory Board, as the President of the Zimbabwe Medical Association (ZiMA) and as the President of the Zimbabwe College of Public Health Physicians.

Dr Mahomva began her career in the Harare City Health Department, where she spent seven years, first as a Clinical Officer and later as Assistant Health Director providing patient care and technical direction and management of the country's two main infectious diseases referral hospitals.

Dr Mahomva has received a number of awards including but not limited to the 2023 Order of the Star of Zimbabwe award in silver for her outstanding coordination role of the national COVID-19 pandemic response; The 2023 ZiMA leadership award and the 2014 USAID Auxilia Chimusoro award for her leadership in HIV programming. She has published over 30 papers in peer reviewed journals.

Dr. Mahomva holds an MPH (field epidemiology) and an MBChB degree from the University of Zimbabwe. She also holds a BSc degree in biology from Berry College, Georgia USA.



Dr Banda Abdallah Khalifa

TAG Member

Ghana

Dr Banda Khalifa is a physician-scientist and global health expert with over a decade of experience in health systems strengthening, health security, and epidemiology. He is a doctoral researcher at Johns Hopkins and the Managing Director of the Center for Advancing Health Systems Innovations (CAAdHSI), where he leads efforts to address the global risk of public health emergencies by establishing an evidence base for informed decision-making and enhancing resilience through policy development and training. He is the section editor for epidemiology for Africa CDC's Journal for Public Health in Africa.

Dr Khalifa graduated from the dual MPH & MBA Sommer Scholars Program at Johns Hopkins University and is a member of the Beta Gamma Sigma International Business Honor Society. He joined the Ghana Armed Forces and worked as a public health physician for almost a decade, including leading the medical corps of the Ghana Air Force on four United Nations Peacekeeping Missions.

During the Covid-19 pandemic, Dr Khalifa was the manager of the Covid-19 response program at the Baltimore City Health Department, USA. He subsequently served as a vaccine and health delivery advisor at the Tony Blair Institute for Global Change, where he was instrumental in shaping and executing crucial COVID-19 health policies in Ghana. Additionally, Dr Banda has worked as a Vaccine Regulatory and Policy Analyst for the Asia Development Bank and has collaborated with multinational organizations, including the Gates Foundation.

Dr Khalifa is enrolled in a PhD program in Infectious Disease Epidemiology at Johns Hopkins Bloomberg School of Public Health. He has co-authored multiple publications on global health security and pandemic preparedness. He is an active participant in numerous international health networks. He has received various awards, including the United Nations Peacekeeping Medal and the Alumni Impact Award during the 60th anniversary of the University of Ghana Medical School.



Dr Bernice Dahn

TAG Member

Liberia

Dr Bernice T. Dahn is the Vice President/ Executive Dean for the College of Health Sciences at the University of Liberia. She served as the Minister of Health for the Republic of Liberia from 2015-2018. For almost nine years prior, Dr Dahn served as Deputy Minister of Health and Chief Medical Officer (CMO) for the Republic of Liberia. In these roles, Dr Dahn led the re-establishment of the Ministry of Health and the rebuilding of Liberia's post-conflict health care delivery system, including designing and implementing a Basic Package of Health Services, establishing a primary care system.

During the early stages of the Ebola Virus Disease (EVD) outbreak in 2014, Dr Dahn coordinated the national response to the epidemic, including development of treatment protocols and infection prevention and control standards, trainings, resource mobilization, and partner coordination. Upon establishment of an Incident Management System, she focused on restoration of routine health services. Dr Dahn also spearheaded the development of Liberia's Investment Plan for Building a Resilient Health System, including the National Health Workforce Program. She also launched a National Community Health Services Policy (2016), creating a new cadre of Community Health Assistants under a nationally unified and high-quality program.

Having taught medical students at her alma mater, A.M. Dogliotti School of Medicine, for thirteen years, Dr Dahn is now focused on improving academic and administrative systems at the college, with a vision of establishing a world-class health sciences education system producing a fit-for-purpose health workforce for Liberia.



Dr Brice Wilfried Bicaba

TAG Member
Burkina Faso

Dr Brice Wilfried BICABA is a public health epidemiologist, who has over 15 years of experience in clinical and public health. During his career, Dr BICABA has worked on several projects and missions in the field of public health, both nationally and internationally. He has held key positions in government agencies and international organizations, with proven experience in managing teams and institutions, global health security, planning and coordinating public health emergency responses, against priority diseases (malaria, tuberculosis, STI/HIV and AIDS, diseases preventable by vaccination), the management and strengthening of health systems, maternal and child health.

Currently Director General of Health and Public Hygiene, he coordinates all disease prevention and control, reproductive health and health promotion programs. During his career, he held the position of Chief Health District Physician, Director of Disease Control, Director of Population Health Protection and First Director of the Health Emergency Response Operations Center (CORUS). He ensured the coordination of several epidemics both at the district level and at the national level. He has to his credit the coordination of the health response to major crises such as the Covid-19 pandemic from 2020 to 2022, the Yirgou crisis in 2019, the measles epidemic at the national level (Burkina Faso) in 2018, dengue epidemic in 2017 and 2016 and expert for the response to the meningitis epidemic in Togo in 2016. He also coordinated the implementation of several meningococcal carriage studies as well as the establishment of a sentinel surveillance system (flu and severe acute respiratory infections, dengue fever and arboviruses, unusual events in the community) in Burkina Faso. He also coordinated the establishment of a pilot sample transport system in Burkina Faso. He coordinated the implementation of the joint external evaluation of the International Health Regulations (IHR) in 2017 as well as the development of the national health security action plan for Burkina Faso in 2018.

Dr BICABA holds a State doctorate in Medicine, a master's degree in health economics and social policies with a professional focus and a master's degree in public health with an epidemiology and biostatistics option. He has an advanced training certificate in public health emergency and disaster management from the U.S. Centers for Disease Control and Prevention in Atlanta. He was temporary advisor to the special research program on tropical diseases (WHO/TDR) from 2016 to 2021, expert on the International Health Regulations (IHR) to the World Health Organization (WHO). He has to his credit several supports in the establishment of Emergency Operation Centers in the countries of the sub-region. In the area of training, he coordinated the implementation of the basic field epidemiology training program in Burkina Faso and supported as supervisor the advanced field epidemiology training program with Joseph University. Ki Zerbo. He also has experience in the field of research and principal investigator of several studies. He has more than forty publications to his credit.



Dr Cheikh Tidiane Mbow

TAG Member
Senegal

Dr Cheikh Tidiane Mbow is a former military physician specialist in anesthesiology and critical care management. He was head of the emergency reception service at hospital Principal of Dakar, before qualifying as an expert in health emergency management, monitoring and evaluation, and multidisciplinary HIV management. He was recruited to MONUSCO as head of the HIV/AIDS section. He subsequently completed a master's degree in public health and health promotion and is currently head of the health promotion and infectious diseases prevention unit at MONUSCO. He has been trained on health systems management during pandemics, crisis and emergency management, and other health related topics.



Dr Deoraj Caussy

TAG Member
Mauritius

Dr Caussy is a medical scientist specializing in the use of integrated public health tools of epidemiology, laboratory sciences, environmental health and social determinants to solve contemporary global, regional and national problems be they of non-infectious or infectious origins especially viruses. His principal focus is the use of risk assessment and management methods especially in the IHR (2005) context. His experience stems from over 30 years of international work with the World Health Organization, NIH, Centers for Disease Control and Prevention and USAID in USA, the Ministry of Health and Wellness in Mauritius as well as an Independent Consultant.

Dr Caussy has provided timely evidence-based recommendations to Health and Environmental Protectorate Agencies in Africa, Asia and various Developing Island States for major epidemic-prone diseases including wild polio, avian and pandemic influenza and viral fevers due to chikungunya and dengue and other vector-borne diseases, as well as coronaviruses including SARS-CoV-1 and SARS-CoV-2. His experience in environmental issues pertains to air, water and food and my seminal work on arsenic contamination and mitigation has become a global criteria document for WHO. His interest in climate change has enabled him to produce a criteria document on Protecting Human Health against Climate Change in Africa for the Network of African Science Academies (NASAC) in collaboration with the InterAcademy Partnership (IAP). He has authored various peer-reviewed articles in his areas of work, and regularly presents his findings in international fora including COP26 and 27. Dr Caussy teaches graduate level courses in his areas of expertise in several Universities in Mauritius.



Dr Ebere Okereke

TAG Member
Nigeria

Dr Ebere Okereke is a public health physician specialising in global health security, health system strengthening and leadership development. She has won awards for her work promoting women and under-represented groups in public health leadership, recognised by the British Medical Association as a role model for women in academic medicine, and by the UK Government Science and Engineering Profession as an Inspirational leader in Science and Engineering.

Ebere co-lead the creation of the Africa CDC-led Partnerships for African Vaccine Manufacturing. She was an honorary Senior Public Health Adviser to the founding Director of Africa CDC, and a Senior Health Adviser at the Tony Blair Institute for Global Change. Ebere led Public Health England's (now UKHSA) aid funded IHR strengthening project; a technical assistance project aimed at sustainably strengthening public health systems to ensure compliance with the International Health Regulations. Her role engaged public health systems in Sierra Leone, Nigeria, Ethiopia, Zambia, Pakistan, and Myanmar; and with Africa CDC and WHO. Ebere is an experienced trainer, coach, and mentor. She has been an honorary lecturer at the Leeds and Hull-York medical schools. Ebere works with public health institutions across Africa to strengthen their systems and is passionate about developing public health leaders across the continent.

She is a founding faculty and steering committee member of the Africa CDC Kofi Annan Global Health Leadership Programme. Ebere is also an Associate Fellow of the Global Health Programme at Chatham House. Most recently, Ebere was the CEO of the Africa Public Health Foundation, established to develop partnerships and mobilise resources in support of Africa CDC. Ebere has published extensively in the scientific media on subjects including tuberculosis control, global health security, health system strengthening, leadership development and gender equity. She currently acts as an editor for PLOS Global Health and BMJ Public Health, and is on the BMJ Africa regional editorial board. Ebere is a graduate of the University of Nigeria College of Medicine. She obtained a postgraduate diploma from the Liverpool School of Tropical Medicine and a MSc in Public Health from Newcastle University UK. She has an honorary doctor of science degree from the Liverpool School of Tropical Medicine. She is a Fellow of the UK Faculty of Public Health and of the London School of Hygiene and Tropical Medicine Executive Leadership Programme.



Prof Helen Rees

TAG Member

South Africa

Professor Helen Rees is the Founder and Executive Director of Wits RHI, the largest research Institute at Wits University in Johannesburg, South Africa. A medical doctor by profession, Professor Rees is a Personal Professor in the University of Witwatersrand's Department of Obstetrics and Gynaecology, Co-Director of the Wits African Leadership in Vaccinology Expertise, Honorary Professor in the Department of Clinical Research at the London School of Hygiene and Tropical Medicine and an Honorary Fellow at Murray Edwards College, Cambridge University, UK. She holds a Doctor of Science (Medicine) honoris causa from the University of London and a Doctor of Laws honoris causa from Rhodes University.

Professor Rees has served on and chaired many national and global scientific committees and boards. She is the Board Chair of the South African Health Products Regulatory Authority. She was Chair of the WHO's Strategic Advisory Group of Experts on Immunization and now chairs the WHO's African Regional Technical Advisory Group on Immunization. Prof Rees is recognised as a leader in global health security. She has served on and chaired a number of WHO International Health Regulation (IHR) Emergency Committees. She is the Chair of WHO's IHR Emergency Committee on Polio. She Co-Chairs the SAGE working group on Ebola Vaccines and served on the WHO IHR Emergency Committee on COVID-19. She is a member of WHO's Scientific and Technical Advisory Group on Infectious Hazards. She is a steering committee member of the Coalition for Clinical Research for Pandemics in LMICs. From 2015 to 2016, she was a member of the Review Committee on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response tasked with making recommendations to WHO about steps required to improve the global response to public health emergencies. She was the Chair of the WHO SAGE Committee on the Use of Vaccines in Humanitarian Emergencies. In South Africa, Helen was a member of SA's Ministerial Advisory COVID-19 Committee (MAC), a member of the National Essential Medicines MAC and a member of the COVID-19 Vaccines MAC.

In the field of vaccines Professor Rees was a member of the Gavi Board and chair of the programme and policy committee. She currently chairs the Gavi Vaccine Investment Strategy that is tasked with recommending a priority list for vaccine procurement between 2025-2030. She is the newly appointed Chair of the MedAccess Board which is a global not for profit organisation that supports access to neglected therapeutics and diagnostics required in LMICs.

Professor Rees has won many international and national awards for her contribution to global health and to science, including being made an Officer of the British Empire (OBE) in 2001 by Queen Elizabeth II. In 2016 she was awarded the South African National Order of the Baobab for her contribution to medicine and to medical research. In 2022 Prof Rees was made an Officer of the French National Order of Merit by President Macron for her contribution to global health and to the COVID-19 response, and also received the Platinum South African National Batho Pele Award for excellence in contribution to the South African COVID-19 response. In 2022 she was named a 'standout voice' in African public health by Harvard Public Health.



Dr Jean Marie Okwo-bele

TAG Member

Democratic Republic of Congo
(DRC)

Dr Okwo-Bele provides advisory services on vaccine research and development and vaccine implementation. He is now Senior Strategic Advisor at Africa CDC. He is a member of the Board of Directors of the International Vaccine Institute based in Seoul, South Korea; member of the board of the African Vaccine Manufacturing Initiative and member of the Leadership Coalition of the World Federation of Public Health Associations. With the WHO, he was a member of the Review Committee on the functioning of the International Health Regulations (2005) during the COVID-19 response and is currently Chair of the Emergency Committee on the multi-country outbreak of the mpox virus.

Previously, as Director of WHO's Vaccines and Immunization Program in Geneva (2004 to 2017), he led the organization's vaccine research, vaccine regulation and vaccine delivery activities and strengthened the processes of WHO vaccine policy recommendation through the redesign of the Strategic Advisory Group of Experts (SAGE) and the production of WHO position papers on vaccines. From 2002 to 2004, he was responsible for UNICEF's global immunization activities in New York, where he supported the organization's efforts to expand immunization coverage in high-population countries. From 1989 to 2002, he served as the WHO Immunization Coordinator for Africa, leading efforts to initiate and manage poliomyelitis eradication, routine program strengthening and introduction of new vaccines. Dr Okwo-Bele began his public health career in the Democratic Republic of the Congo where he served in the WHO Special Surveillance Program on mpox (monkeypox) and Ebola viruses prior to his appointment as National Coordinator of the expanded program of vaccination.

The author of more than 35 articles and book chapters, Okwo-Bele holds a medical degree and a master's degree in public health. He received Rotary Paul Harris Fellow recognition for advancing polio eradication in the African region. In September 2022, he was named an ordinary member of the Pontifical Academy for life by Pope Francis.



Dr Nyasha Guzha- chanetsa

TAG Member

Zimbabwe

Dr Nyasha (Munjeri) Guzha-Chanetsa is a Veterinarian and public health specialist with more than three decades of experience at provincial, national and regional levels. She holds a Master of Public Health (MPH), a Master of Business Administration (MBA), a Master of Science in Biotechnology (MSc Biotechnology), a Bachelor of Veterinary Science (BVSC) and she is currently working on her PhD. Her primary interests and expertise relate to the one health approach to dealing with diseases; research on the prevention and control of zoonotic and emerging diseases; prudent antimicrobial use and antimicrobial resistance matters; as well as food safety issues impacting developing nations.

Dr Guzha-Chanetsa is currently working as a Chief State Veterinarian (Public Health and Trade Facilitation) in the South African Department of Agriculture, Rural Development and Environment. She is involved in enforcing and monitoring the international trade of live animals, animal based products and animal food in accordance with the regulations of the importing nations as well as international standards set by bodies such as: the World Animal Health Organisation (WHAO), the Food and Agriculture Organisation of the United Nations (UNFAO), the World Health Organisation (WHO), the World Trade Organisation (WTO) and the Sanitary Phyto-Sanitary Standards (SPSS).

Whilst working for the Food and Agriculture Organisation (FAO) of the United Nations, she was involved in the pandemic preparedness program for the highly pathogenic avian influenza in the Southern Africa region. She coordinated the emergency preparedness within the United Nations regional office through liaising with sister agencies, at the country level with the relevant national departments as well as with civil organisations and other relevant stakeholders.

Dr Guzha-Chanetsa has more than 10 years of research and diagnostics experience in a Microbiological laboratory in Harare(Zimbabwe) where she was involved in researching and developing innovative, efficient and effective diagnostic techniques for diseases of economic and public health importance.

Dr Nyasha is passionate about public awareness campaigns as well as empowering and enabling communities to live holistically balanced lives through information outreach programs. She values the principles of life-long learning and continually strives to develop herself through her passion for research, education and collaboration.



Dr Rick Bright

TAG Member

USA

Dr Rick Bright is an international expert on global health, resilience, and pandemic readiness, with extensive experience in biodefense, emergency preparedness and response, pharmaceutical innovation, vaccine, drug and diagnostic development. He is an advisor to public and private organizations, Executive Board Member for the NY Academy of Science's International Science Reserve, on the Board of Directors of FIND Dx, a Sr. Fellow at the Foreign Policy Association, a member of the Science and Technology Expert Group of the 100 Day Mission, the Scientific Advisory Board of Qiagen, the National Academy of Science, Education and Medicine's Forum on Microbial Threats, and the Council on Foreign Relations.

Dr Bright served as the Deputy Assistant Secretary for Preparedness and Response and the Director of the Biomedical Advanced Research and Development Authority (BARDA), in the U.S. Department of Health and Human Services where he directed public-private partnerships that led to the FDA approval of over 60 vaccines, drugs and diagnostics for public health and national security threats.

As the Chief Executive Officer of the Pandemic Prevention Institute at The Rockefeller Foundation, Dr Bright led the development of the Foundation's pandemic data-to-action platform that integrates modern technology, data analytics and global partners to help the world detect, prevent, and mitigate pandemic threats to achieve containment as quickly as possible.

Dr Bright also has extensive experience in the biotechnology industry where he held senior leadership roles. He has held senior scientific leadership positions in non-governmental organizations where he championed innovative vaccine development and expanded vaccine manufacturing capacity to multiple low and middle income countries. He also spent a decade in vaccine, therapeutics, and diagnostics development at the U.S. Centers for Disease Control and Prevention. For this work, Dr Bright received the Charles C. Shepard Science Award for Scientific Excellence.



Rodrigue Kohoun

TAG Member

Benin

Dr Kohoun has been involved with several efforts within the Ministry of Health of Benin. This includes acting as the medical coordinator for the response to the COVID-19 pandemic in Abomey-Calavi / Sô-Ava, Benin. The Municipality of Abomey-Calavi is the 2nd most affected for COVID-19 and the Municipality of Sô-Ava is the most exposed to Cholera epidemics. Dr Kohoun led emergency response efforts with a good appreciation of the Office of the Minister of Health, which earned him the promotion to his current role as one of the direct collaborators of the Minister of Health.



Dr Sani Aliyu

TAG Member

Nigeria

Dr Sani Aliyu is a consultant in Microbiology and Infectious Diseases and Caldicott Guardian at Cambridge University Hospitals and an Affiliated Assistant Professor of Medicine at Cambridge University, UK. He was until recently the national coordinator of Nigeria's Presidential Task Force on COVID-19 responsible for the country's pandemic response. Dr Aliyu was the Director-General of the Nigeria National Agency for the Control of AIDS (NACA) from 2016-2019, where he is credited with the successful delivery of the Nigeria AIDS Indicator & Impact Survey (NAIIS), the largest HIV-specific national survey ever done.

Dr Aliyu was a commissioner on the African Union Commission on COVID-19 and the Lancet Commission on Nigeria. He also sits on the Scientific Advisory Board for the Coalition for Epidemic Preparedness & Innovation (CEPI), a global partnership for developing vaccines to stop future pandemics and the Strategic Advisory Group for the WHO Foundation. He chaired the primary care sub-committee of a presidential initiative on reforming Nigeria's health sector. Locally, he is Chair of the Cambridgeshire & Peterborough system-wide Antimicrobial Stewardship Network and Clinical Lead for the East of England HIV Clinical Network. He is a recipient of the national honor of Officer of the Order of the Niger awarded in recognition of his work on HIV and COVID-19 in Nigeria. His areas of interest include HIV and COVID-19 pandemic response, health system improvement, and antimicrobial stewardship.



Dr Wafaa El-SADR

TAG Member

Egypt

Dr Wafaa El-Sadr is the founder and director of ICAP and an international expert in infectious diseases and public health with extensive experience in epidemiology and research on the prevention and management of HIV, tuberculosis, malaria, and emerging infections, among others. She is also the director of Columbia World Projects and director of the Mailman School's Global Health Initiative (GHI), which mobilizes the university community to address critical challenges in global health. For over four decades, she has advocated for families and communities most impacted by health challenges and championed a collaborative, multidisciplinary approach to confronting the global epidemic. Based at Columbia University, she leads ICAP's portfolio of projects in more than 30 countries and manages a global team of over 2,000 staff. Under her leadership, ICAP has become a global leader in addressing global health challenges and health systems strengthening.

Dr El-Sadr began her career as the HIV epidemic took hold in the United States. As chief of the Division of Infectious Diseases at Harlem Hospital, she developed successful methods for responding to HIV/AIDS through groundbreaking research and innovative models of care in her own community. Dr El-Sadr became a leader in the global fight against HIV by arming health care systems around the world with effective strategies for confronting the impact of various health challenges and leveraging investment to strengthen health systems. She is the principal investigator for numerous ICAP-led research initiatives and a principal investigator of the NIH-funded HIV Prevention Trials Network (HPTN).

Dr El-Sadr received her medical degree at Cairo University, a master's in public health (epidemiology) from Columbia University Mailman School of Public Health, and a master's in public administration from Harvard University Kennedy School of Government. She joined the faculty of Columbia's College of Physicians and Surgeons in 1988 and became a professor of epidemiology and medicine at the Mailman School of Public Health. In 2013, she was appointed University Professor, Columbia's highest academic title. She also holds the Dr Mathilde Krim-amfAR Chair in Global. She is a MacArthur fellow, as well as a member of the National Academy of Medicine, the Council for Foreign Relations, and the African Academy of Sciences.

Annex B:

Participant List

Name	Institution	Title
1. Dr Deo Nshimirimana	Independent	TAG Chair & Public Health Consultant
2. Dr Rebecca Martin	Emory University	TAG Co-chair & Vice President, Global Health and Director of the Emory Global Health Institute
3. Aissata SALL	WHO WCO Senegal	Communication Officer
4. Aloyse W. Diouf	WHO WCO Senegal	NPO Health Promotion
5. Alphe Seydi Ndiaye	UNICEF	
6. Benedict Millinchip	WHO HQ	Project Management Officer
7. Charles Njuguna	WHO AFRO	Regional Advisor, Country Readiness Strengthening (CRS)
8. Charles Okot	WHO AFRO	IDSR & Epidemiology Lead
9. Dabire Ernest	WHO AFRO	Senior Health Emergency Officer
10. Diarra Faye	USAID	Global Health Security Advisor
11. Diaw Maguette	WHO AFRO	Interpreter
12. Doshi Reena Hemendra	WHO AFRO	Emergencies Immunization Officer
13. Drame Gassessou	IFRC	
14. Dr Abdou Salam Gueye	WHO AFRO	Regional Emergency Director
15. Dr Adamou Moustapha	Ministry of Health, Niger	Director-General
16. Dr Agnes Illah Mahomva	Office of the President and Cabinet, Zimbabwe	TAG Member & Public Health Advisor to the President and Cabinet, Zimbabwe
17. Dr Banda Abdallah A. Khalifa	Johns Hopkins Bloomberg School of Public Health/Center for Advancing Health Systems Innovations (CAHHSI)	TAG Member & Global Health Expert and Managing Director

Name	Institution	Title
18. Dr Bernice Dahn	University of Liberia	TAG Member & Vice President/Executive Dean, College of Health Sciences
19. Dr Cheikh Tidiane Mbow	MONUSCO (Goma)	TAG Member & Chief, Health Promotion & Infectious Diseases Prevention Unit
20. Dr Cephas Sialubanje	Zambia National Public Health Institute	Director, Strategic Planning and Information Management -National Public Health Institute
21. Dr Deoraj Caussy	360 Epidemiology Solutions	TAG Member & Epidemiologist
22. Dr Dick Chamla	WHO AFRO	Programme Manager, Preparedness
23. Dr Elizabeth Mulee Nzioka	Ministry of Health, Kenya	Public Health Emergency Operation Center Officer
24. Dr Eberechukwu Nkem Okereke	Independent	TAG Member & Independent Global Health Expert
25. Dr Etien Koua	WHO AFRO	Programme Manager, Health Emergency Information & Risk
26. Dr Fiona Braka	WHO AFRO	Programme Manager, Response
27. Dr Ibrahima SY	Republic of Senegal	Minister of Health
28. Dr Jean-Marie Okwo-Bele	Independent	TAG Member & Public Health Consultant
29. Dr Jean Marie Yameogo	WHO WCO Senegal	WHO Representative Senegal
30. Dr Kodjo Rodrigue Kohoun	Ministry of Health, Benin	TAG Member & PHC Technical Advisor to the Minister of Health
31. Dr Maleghemi Sylvester T.O	WHO WCO South Sudan	Technical Officer (Universal Immunization)
32. Dr Matshidio Moeti	WHO AFRO	Regional Director
33. Dr Ngandu Christian	Ministry of Health, DRC	Coordinator, Public Health Emergency Operation Center
34. Dr Nyasha Guzha-Chanetsa	South African Department of Agriculture, Rural Development & Environment	TAG Member & Chief State Veterinarian (Public Health & Trade Facilitation)
35. Dr Rick Arthur Bright	Bright Global Health	TAG Member & CEO

Name	Institution	Title
36. Dr Sani Hussaini Aliyu	Cambridge University Hospitals, NHS Foundation Trust	TAG Member & Consultant, Microbiology & Infectious Diseases
37. Dr Yam-Madji Aliace Djitaingar	Ministry of Health, Chad	Director General of Public Health
38. Edith Mpouo	WHO AFRO	Programs Assistant Officer
39. Etienne Minkoulou	WHO AFRO	Monitoring, Evaluation, Accountability & Learning Officer
40. Faiza Hassan	WHO AFRO	Programme Management Officer
41. Fatima Tafida	WHO AFRO	Chief Supply Unit Officer
42. Faye El Hadji Issa	WHO AFRO	National Security Officer
43. Gladys Anyo	USAID	Global Health Security Advisor
44. Gerard Krause	WHO HQ	Director, Collaborative Surveillance
45. Guindo Ngoné	WHO HQ	Interpreter
46. Helena O'Malley	WHO	Programme Manager, Strategic Support
47. Ibrahima BA	WHO WCO Senegal	BCP and Development Coordinator
48. Jagne Mamsait	WHO AFRO	Interpreter
49. Jerry Mbasha	WHO AFRO	Partnerships Officer
50. Kouameh Krah	WHO AFRO	ICT Officer
51. Mady BA	WHO WCO Senegal	National Professional Officer
52. Malick Ndiaye	WHO WCO Senegal	Driver
53. Mpairwe Allan	WHO AFRO	Risk Management and Preparedness Officer
54. Naomie Landais	Africa Practice	Consultant
55. Ndella Diakhate	WHO WCO Senegal	National Professional Officer
56. Ndow Matilda Alice	WHO AFRO	Interpreter
57. Patrick Otim Ramadan	WHO AFRO	Acute Events Management Officer

Name	Institution	Title
58. Prof Etoundi Mballa	Ministry of Health, Cameroon	Director, Disease Control
59. Rebecca Fogel	WHO AFRO	Project Management and External Relations Officer
60. Sarah Hollis	WHO AFRO	Detection, Verification & Risk Assessment Technical Officer
61. Sarr Mamadou	Ministry of Health, Senegal	Technical Officer
62. Sarr ép Seye, Ndeye Gnima	WHO AFRO	Interpreter
63. Sophie Mathewson	GAVI	Senior Programme Manager, Global Health Security
64. Sow Adji Fatou	WHO WCO Senegal	Programme Assistant
65. Sy Marieme	WHO AFRO	Interpreter
66. Thierno Balde	WHO AFRO	Dakar Hub Coordinator
67. Vigil Kuassi Lokossou	WAHO	Team Lead of Health Emergencies and Disaster Management/ECOWAS Regional Centre for Disease Surveillance and Control
68. Wessam Mankoula	Africa CDC	Regional Director, North Africa Regional Coordinating Centre (RCC) & Lead of Emergency Operations Centre
69. Zinedine Kade	WHO AFRO	Operations Support and Logistics (OSL) Officer
70. Zongo Mamadou	WHO AFRO	Health Logistics Officer

