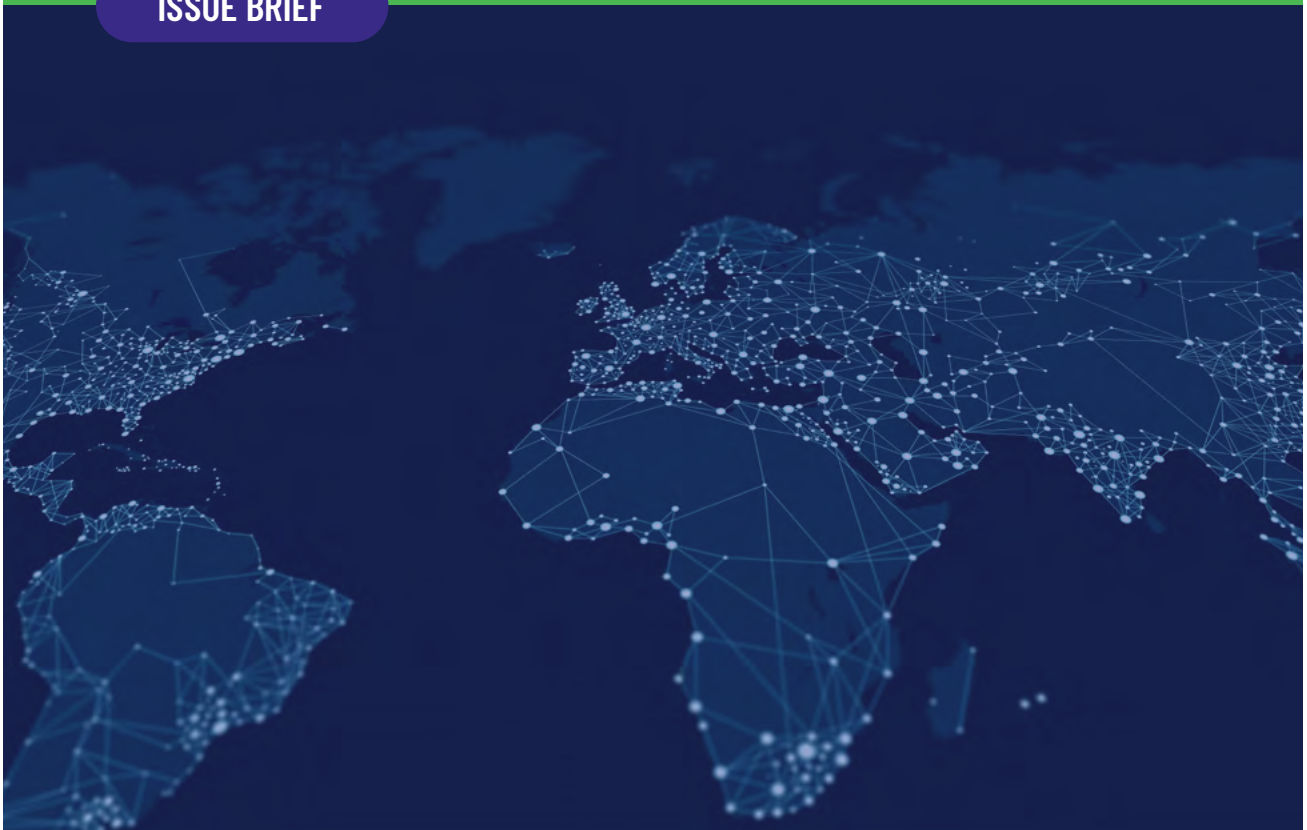


# Strengthening Epidemic Preparedness at the Country Level

ISSUE BRIEF



In partnership with





Since the emergence of COVID-19, multiple international bodies have reviewed the world’s preparedness for and response to epidemics and pandemics, producing dozens of recommendations<sup>1</sup> on adapting and strengthening our global health so that it is fit-for-purpose for the next health threat.

And yet, even as the world continues to grapple with the COVID-19 pandemic, far less attention has been paid to the country-level architecture required for a better protected world. As the global public health community begins revising the International Health Regulations (IHR 2005)<sup>2</sup> and negotiating a new pandemic prevention, preparedness and response instrument, we must ensure that such endeavors are informed by real-world efforts to improve country-level public health architecture, and that countries are not forgotten as the front lines of effective preparedness and response.



**Global health security must begin with preparedness and response architecture at the country level.**

## The challenges

**Improving country-level preparedness is an inherently difficult, complex, incremental process with no shortcuts. Rather than “filling gaps,” a more accurate metaphor is “traveling toward a destination.”**

Research shows that a country’s performance during an infectious disease outbreak is linked to its ability to partner across and beyond health stakeholders; coordinate at national and subnational levels with appropriate political leadership; engage communities; and continuously develop and strengthen health and public health system capacity to prevent and stop outbreaks.

**Country efforts to enhance public health tend to be slow and uneven for many structural reasons, including:**

- **Insufficient human resources:** Many countries rely on emergency response teams to carry out preparedness work in the rare downtime between responses, leaving preparedness activities unattended, de-prioritized and implemented in a start-stop manner.
- **Limited funds:** The Task Force meeting of the G20 Health and Finance track estimates that national governments invest just 1% to 3% of their health care spending on pandemic preparedness and response. Resources available from international partners are insufficient.<sup>3</sup> Unlike vertical disease programs that measure specific outcomes (e.g., lives saved or reduction of disease burden), success in epidemic and pandemic preparedness is defined by the absence of large-scale disease events. The lack of obvious, measurable, reportable outcomes for successful responses discourages investment or favors short bursts of funding only when an immediate threat is perceived.

<sup>1</sup> Survey on implementation of COVID-19 recommendations: [preliminary findings](#)

<sup>2</sup> This includes work by the [Independent Panel for Pandemic Preparedness and Response](#) (IPPPR), established by the World Health Organization (WHO) Director-General in response to [World Health Assembly resolution 73.1](#), and work by the [High High-Level Independent Panel \(HLIP\) on Financing the Global Commons for Pandemic Preparedness and Response](#) established by the G20.

<sup>3</sup> Overall Development assistance for health (DAH) is estimated at around \$40B per year with a small share, estimated at around 1-2.5%, directed at supporting core pandemic preparedness and response functions at global and country level.



- **Inadequate program management and underutilization of existing funds:** Weak program management and planning can lead to limited absorption capacity and underspending. Preparedness personnel tend to be highly technically skilled (e.g., epidemiologists, doctors), but often lack experience in complex program management, leadership and coordination, which are all required to prioritize, track and implement preparedness. This is exacerbated by international funding that is unpredictable, piecemeal, heavily earmarked and complex to administer.
- **Insufficient prioritization and limited project management expertise:** National Action Plans for Health Security (NAPHS) are among the most complex planning processes in public health, with multisectoral interdependencies across 19 different technical areas. Countries face big challenges in prioritizing and sequencing activities across the 19 technical areas: the first 100 Joint External Evaluations (JEE) identified more than 7,000 gaps in preparedness capacity. Without rigorous approaches to ensure prioritization, plans tend to be unwieldy and difficult to execute.
- **Lack of real-time metrics and diffuse accountability:** The prevailing global standard for measuring epidemic preparedness, the Monitoring and Evaluation Framework of the IHR (2005), including the State Party Self-Assessment Annual Reporting (SPAR), does not include straightforward mechanisms by which governments can identify points of failure and bottlenecks across responses to public health threats. There is little real-time visibility on NAPHS implementation, including activities funded by multilateral organizations, development banks or bilateral donors, hindering the ability of designated agencies or divisions to track progress, identify and address emergent bottlenecks in a timely manner, plan efficiently and coordinate overall implementation of well-prioritized NAPHS activities. This limitation also allows after-action reviews to devolve into political blame games or vague speculations, stalling collective efforts to leverage high-yield opportunities for system improvements.
- **Underinvestment in multisectoral collaboration:** COVID-19 has put the interlinkages among public health, socio-economic, political and security challenges into sharp relief. Still, efforts to drive multisectoral coordination to prepare and respond to health threats tend to be limited and lack focus, concrete actions and deadlines; ineffective multisectoral coordination is often a source of significant delays, hindering full implementation of the IHR (2005).
- **Insufficient political will and clear governance structures:** Weak political support at the highest level of government and unclear or competing public health-related authority among governmental structures can make it difficult to implement preparedness efforts efficiently.

These hurdles cannot be tackled through one-off engagements from countries' technical partners. Country-driven approaches that are both practical and sustainable are necessary to strengthen preparedness architecture and are essential — not only to better protect countries, but also as the foundational building blocks to protect the world.



## Experience-informed recommendations

Over the past five years, the governments of seven African countries in partnership with Resolve to Save Lives (RTSL), have piloted different approaches to strengthening preparedness.

This experience includes:

- Strengthening the program management capacity of government stakeholders involved in preparedness;
- Establishing multi-disciplinary teams dedicated to accelerating implementation of the National Action Plan for Health Security (NAPHS) with a focus on prioritization of activities, progress monitoring, facilitating partnerships and enhancing accountability;
- Advocating to elevate preparedness as a political priority, including increased financing;
- Supporting the enhancement of legal frameworks to enable preparedness; and
- Rolling out timeliness metrics to support rapid and continuous improvement and increased accountability.

Five core recommendations have emerged from these efforts and can inform government, donor, partner and global approaches to strengthening country-level preparedness:

1

Activate political leadership and a multisectoral coordination mechanism.

2

Establish multidisciplinary teams dedicated to preparedness.

3

Adopt an accessible tracking system for implementation of national preparedness plans.

4

Set up timeliness metrics to drive continuous improvement and performance.

5

Streamline partnerships and align donors and technical assistance providers.



## **1 Activate political leadership and a multisectoral coordination mechanism that is efficient, accountable and supports progress in each of the sectors where it is needed.**

COVID-19 has shown that although preparedness systems are necessary, they are not sufficient to address health threats without effective leadership. Capacity and leadership are necessary and complementary, and neither on its own is sufficient to meet health security challenges. In practical terms, this means that technical engagement and leadership of countries' ministries of health (MoHs) can only successfully prepare for health threats if a commitment is made at the highest levels of government (president or prime minister) to elevate preparedness above the MOH to include other sectors, sustain political will to ensure appropriate attention and investments over time, and ensure accountability to citizens, neighboring countries, partners and donors. Regular reporting to the highest level (leveraging analysis from the below-mentioned tracker) can also generate and help sustain the political will necessary to break down silos among human, animal, environment and other relevant sectors.

Relatedly, the establishment or strengthening of One Health platforms with well-defined responsibilities and coherent strategy, outcomes and dedicated secretariat support can help various ministries understand and implement their roles and obligations under the IHR (2005) and establish frameworks for clear decision-making that is informed by risk, rather than politics. In this regard, dedicated preparedness teams (see Recommendation 2) with multidisciplinary skills and experience, and partnerships with different sectors can stimulate and sustain engagement across sectors. Ongoing engagement is necessary for continuous monitoring, learning, calibration and adjustment of multisectoral efforts. In Ethiopia, for instance, the dedicated preparedness team has been working closely with the national One Health steering committee and One Health partners, as well as the national emergency coordination committee, to ensure they have a shared agenda rooted in the NAPHS, are advancing mutually reinforcing activities, communicating about unexpected threats or challenges and periodically recalibrating their plans.

---

## **2 Establish multidisciplinary teams dedicated to preparedness.**

Preparedness is a complex and specialized area of public health that requires dedicated human resources. COVID-19 has demonstrated how factors across all health sectors — from readiness of health facilities to risk communications — affect the trajectory of an infectious disease threat. Countries and donors should consider establishing dedicated, multisectoral teams to accelerate the implementation of NAPHS and track progress (“dedicated preparedness teams”). Pilots (see Box 1) have shown that with the support of a core group of partners and committed national leadership, countries with established, dedicated preparedness teams outperformed others in preparedness improvement as measured by the State Party Self-Assessment Annual Reporting (SPAR). Between 2018 and 2020, Nigeria's SPAR score improved by 3.8%, Ethiopia's by 15% and Uganda's by 35%.



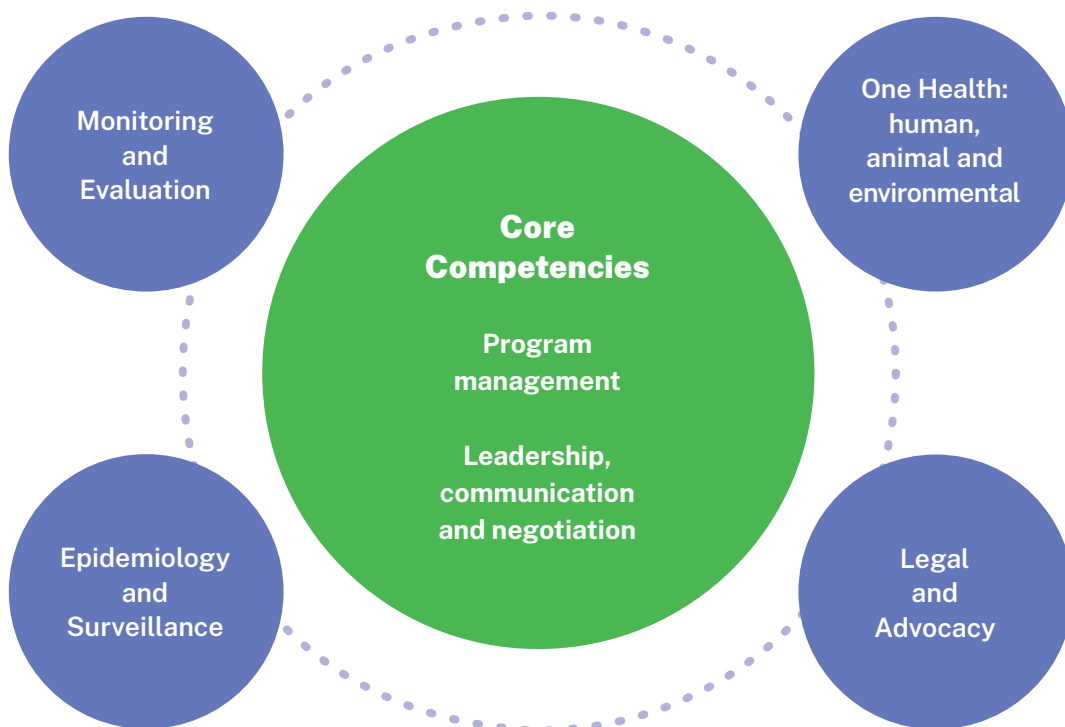
### Dedicated Preparedness Teams

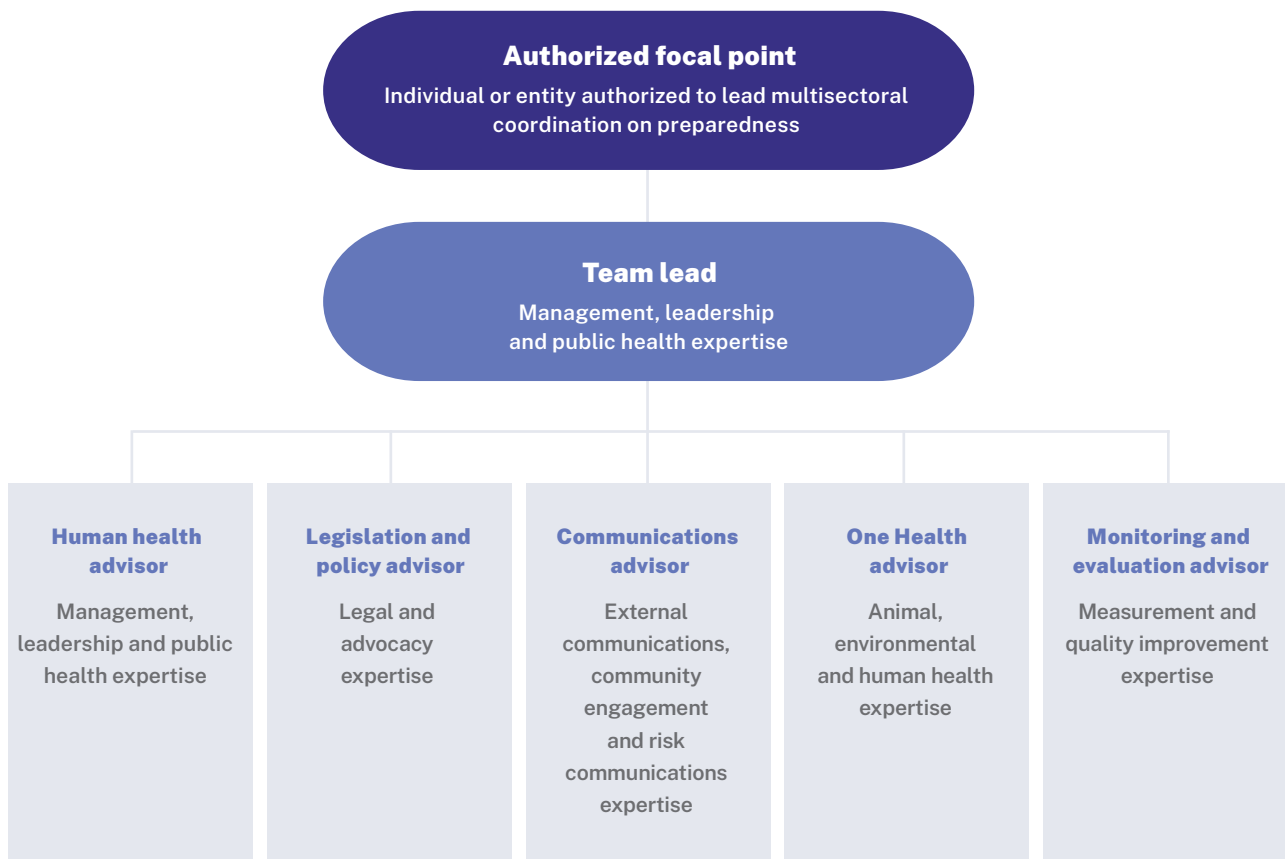
In the Democratic Republic of Congo, Ethiopia, Nigeria and Uganda, Resolve to Save Lives has partnered with governments to design, fund and implement pilot programs that enabled dedicated, multi-disciplinary teams to catalyze preparedness.

RTSL embedded staff within Ministries of Health or National Public Health Institutions and provided targeted training, financial resources including leveraging programs of the World Bank and others, and facilitated knowledge exchange among countries.

The teams have steered multi-sectoral coordination and implementation of National Action Plans for Health Security, with a focus on partnering across departments and stakeholders and increasing prioritization, accountability and monitoring of progress.

Specific country contexts and government priorities should determine the institutional positioning and composition of a dedicated preparedness team. For example, a country with a federated political structure may have its preparedness team focus on the subnational level. Regardless of how it is structured, the team must be anchored to an appropriately authorized political coordination mechanism to be successful; the exact scope of work, reporting relationships and protocols for government agency partnerships will differ depending on national priorities and needs.





- The team can include experts with different specialties (e.g., health security, veterinary public health, monitoring & evaluation, legal, communication) based on country needs.
- The team can be attached to NPHIs or specific divisions within the MoH, depending on where NAPHS leadership is located. In Ethiopia, a dedicated preparedness team is embedded within the Ethiopian Public Health Institute, which has led preparation of NAPHS and is coordinating its implementation in collaboration with the emergency coordination committee, strengthening preparedness and response to public health and humanitarian crises. In Uganda, the team is stationed at the MoH under the Office of the Director-General Health Service, and reports to the Department of Integrated Epidemiology, Surveillance and Public Health Emergencies and Public Health Emergency Operations Centre, collaborating with the Office of the Prime Minister, other government agencies and implementing health security partners.
- Dedicated preparedness teams can support the synthesis of various risk and capacity assessments; development, prioritization and implementation of realistic preparedness plans based on capacity assessments; alignment with existing donors and financing structure (such as the World Bank’s REDISSE and other projects set up to reinforce surveillance and response systems against infectious diseases in the wake of the West African Ebola epidemic); identification and reconciliation of resource gaps; applying learning from performance during real-world events to improve early detection and response; establishing tracking systems to monitor progress and inform the strategic piloting of activities; facilitation of partnerships; strengthening of One Health coordination; and enhancement of collaboration across departments and sectors.



- Progress is accelerated when teams are 100% dedicated to preparedness yet still linked closely to clinical services and epidemic response to ensure the lessons learnt and gaps identified are integrated quickly into planning and implementation. For this to occur, countries require adequate staff dedicated to response activities that have access to [rapid response funding](#).

---

### **3 Adopt an accessible tracking system to steer NAPHS implementation and strengthen accountability.**

NAPHS are amongst the most complex planning processes in public health, with multisectoral interdependencies across 19 different technical areas. The plethora of activities included in NAPHS tends to lack adequate prioritization and resourcing, and typically, there is little real-time visibility on activity implementation progress, including those activities funded by multilateral organizations, development banks or bilateral donors. This hinders the ability of designated agencies or divisions to track implementation and funding status, identify and address emergent bottlenecks in a timely manner, plan efficiently, and coordinate overall implementation of well-prioritized NAPHS activities.

Prioritization of the NAPHS into a 12-month operational plan has helped drive coordination, focus implementation and support alignment across departments. Countries can set up a NAPHS tracking system to facilitate coordination and accountability across ministries and departments and mobilize resources. Having a shared and current overview of NAPHS progress can help countries continuously refine their plans by prioritizing actions, informed by real life experience (including after-action reviews) or alignment with other opportune national development priorities.

Since 2018, several countries including Nigeria, Uganda, Ethiopia, Liberia and the DRC have adopted customizable, online, open-source database and data visualization tools (“trackers”) to track and pilot NAPHS activities. In these countries, tracker use has helped generate an accurate and shared understanding of NAPHS implementation progress; facilitated multi-sectoral collaboration by providing real-time data access to technical leads and implementers across sectors; increased accountability by assigning activities to pre-identified stakeholders; and provided an efficient way of summarizing and communicating the data to inform decision-making. The tracker provides senior officials with a big-picture view of the NAPHS program and helps stakeholders find implementation bottlenecks more easily and devise the necessary technical, operational, financial or political interventions needed to tackle them.





#### 4 Set up timeliness metrics to drive rapid and continuous performance improvement that is easily communicated.

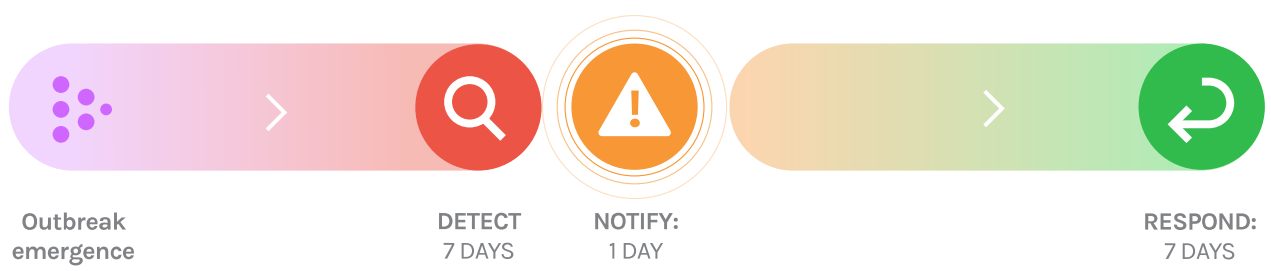
Being ready for an epidemic on paper does not necessarily result in strong real-world performance. Measuring a country’s ability to respond requires a review of how all elements of the health security system — from laboratories and surveillance to health coverage and leadership — work together to detect and respond to disease threats. One way to assess how well country systems work is by measuring timeliness: a start-to-end assessment of the speed with which real-world infectious diseases threats are detected, public health authorities are notified, and an effective response is mounted.

Using the 7-1-7 target, in which countries aim to identify every suspected outbreak within 7 days of emergence, report it to public health authorities with initiation of investigation and response efforts within 1 day, and effectively respond within 7 days, can help identify bottlenecks and points of failure and improve performance. Applying 7-1-7 timeliness metrics to real-world experiences can inform NAPHS prioritization and help preparedness teams simplify and accelerate implementation while fostering a culture of rapid and continuous quality improvement. The 7-1-7 framework also provides a clear way for NPHIs and MoHs to communicate with the public, political leadership and donors about where improvements have been made and where additional funding and support are needed, as well as documenting the success of finding and stopping outbreaks before they occur or spread.

Pilot countries met at least one 7-1-7 target in approximately half of their outbreaks, but met all three targets in only about 1 in 4 outbreaks, demonstrating that the targets are realistic but that many bottlenecks exist, some of which are not captured by the SPAR and JEE. 7-1-7 reviews have highlighted challenges that are concretely tethered to the operational capacity of systems, and provide a metric demonstrating the impact of interventions and a pathway to rapid improvement.



**Applying 7-1-7 timeliness metrics to real-world experiences can inform NAPHS prioritization and help preparedness teams simplify and accelerate implementation while fostering a culture of rapid and continuous quality improvement.**





**5 Streamline partnerships and align donors and technical assistance providers in the health security space to improve support for priority activities.**

Despite efforts to achieve better alignment, fragmentation is an enduring feature of the global health landscape and undermines the effectiveness of health programming, including in public health and health security. African health leaders have, over the years, repeatedly urged development partners to better coordinate their efforts when supporting countries in strengthening their health systems toward achieving universal health coverage and health security. Yet donors and partners continue to lack coordination and their activities are often duplicative and include high transaction costs, while important gaps remain.

Dedicated preparedness teams can enable higher-quality engagement with stakeholders and buy-in for implementation. In Uganda, the team was equipped to align new and existing development partners and donors to accelerate implementation of the country's NAPHS. The team strategically used costing tools to efficiently estimate resource requirements and build political and institutional support from the broader domestic development plan, giving them the gravitas and ability to synchronize international technical and financial partners (e.g., FAO, USAID, U.S. CDC, MSF) to prioritize, accelerate and effectively utilize existing resources to match the national health security agenda.

**Technical rigor, political leadership and operational excellence are all needed to manage the complexity of strengthening health security across sectors, deepening systems that build trust and put communities at the center, enhancing evidence-based decision-making, and improving accountability.**

The five steps outlined in this brief can help countries make substantial, steady and sustained progress towards protecting their people, their neighboring countries and the world. Global health security must begin with preparedness and response architecture at the country level.





**A very special thank you to the signatories of this document:**

**Dr. Da Costa Aboagye**

Director of Health Promotion, Ghana Health Service &  
National Lead of RCCE for Ghana's COVID-19 Response  
Ghana

**Dr. Ifedayo Adetifa**

Director-General  
Nigeria Centre for Disease Control

**Dr. Anthony Nsiah Asare**

Presidential Advisor on Health  
Office of President  
Jubilee House  
Ghana

**Mustapha Bittaye**

**(MBChB, MSc, MGCPs, FWACS)**

Director of Health Services  
Ministry of Health  
The Gambia

**Dr. Janneth Mghamba**

Health Advisor  
Social Policy Development - Health Section  
The Commonwealth Secretariat

**Dr. Daniel Ngamije**

Minister of Health  
Rwanda

**Dr. Aceng Jane Ruth Ocerro**

Minister for Health  
Republic of Uganda

**Prof. Adrian Puren**

Executive Director  
National Institute for Communicable Diseases  
South Africa

**Dr. Ahmadou Lamin Samateh**

Minister of Health  
The Gambia

**Dr. Awa Marie Coll Seck**

Minister of State to the President  
Senegal

**Dr. Lia Tadesse**

Minister of Health  
Ethiopia