

IMPROVING GLOBAL  
HEALTH SECURITY  
THROUGH ONE HEALTH



## MULTISECTORAL COORDINATION THAT WORKS

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**Building Effective, Sustainable Mechanisms to Prevent,  
Detect, and Respond to Public Health Threats**

**Preparedness & Response**  
ONE HEALTH IN ACTION

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**USAID**  
FROM THE AMERICAN PEOPLE

# one health

engagement across veterinary champion research  
ability assess challenge promote  
evaluation emerging improving messages motivate identify  
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world food group private wildlife policymakers  
infectious surveillance university strategic  
leadership leadership coordinate exercise effort  
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team policy improved capacity zoonotic national  
trust support partner sufficient  
partner global working study department organize disease results  
working risk collaboration animal communication  
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## FOREWORD

Responding to emerging zoonotic and other infectious disease threats requires the collective and coordinated efforts of multiple technical sectors and disciplines – an approach known as One Health multisectoral coordination. Effective multisectoral coordination is not easy to accomplish, much less easy to sustain at the national level. But without it, national governments will continue to work without strategic alignment among the sectors, and sometimes at cross-purposes, during the critical early moments of an outbreak and potentially beyond.

There has been progress toward advancing global health security. The legally binding International Health Regulations (2005), signed by all WHO member countries; the Global Health Security Agenda (GHSA); the Joint External Evaluation process that assesses country capacity to prevent, detect, and respond to public health threats; and global standard-setting bodies like the World Health Organization (WHO), the Food and Agriculture Organization (FAO), and the World Organization for Animal Health (OIE) have helped build global consensus on the need to take action and supported the development of standardized measures and indicators to assess and track progress.

This study further advances progress toward global health security by identifying five necessary dimensions for effective One Health multisectoral coordination. The study draws on the USAID-funded Preparedness & Response (P&R) project's extensive program experience, the global experience of other implementers, key informant interviews, and peer-reviewed literature. This publication examines how formal One Health coordination mechanisms have evolved, offers illustrative examples of intermediate outcomes of these efforts, and makes recommendations on how national governments and the global community might take this work forward.

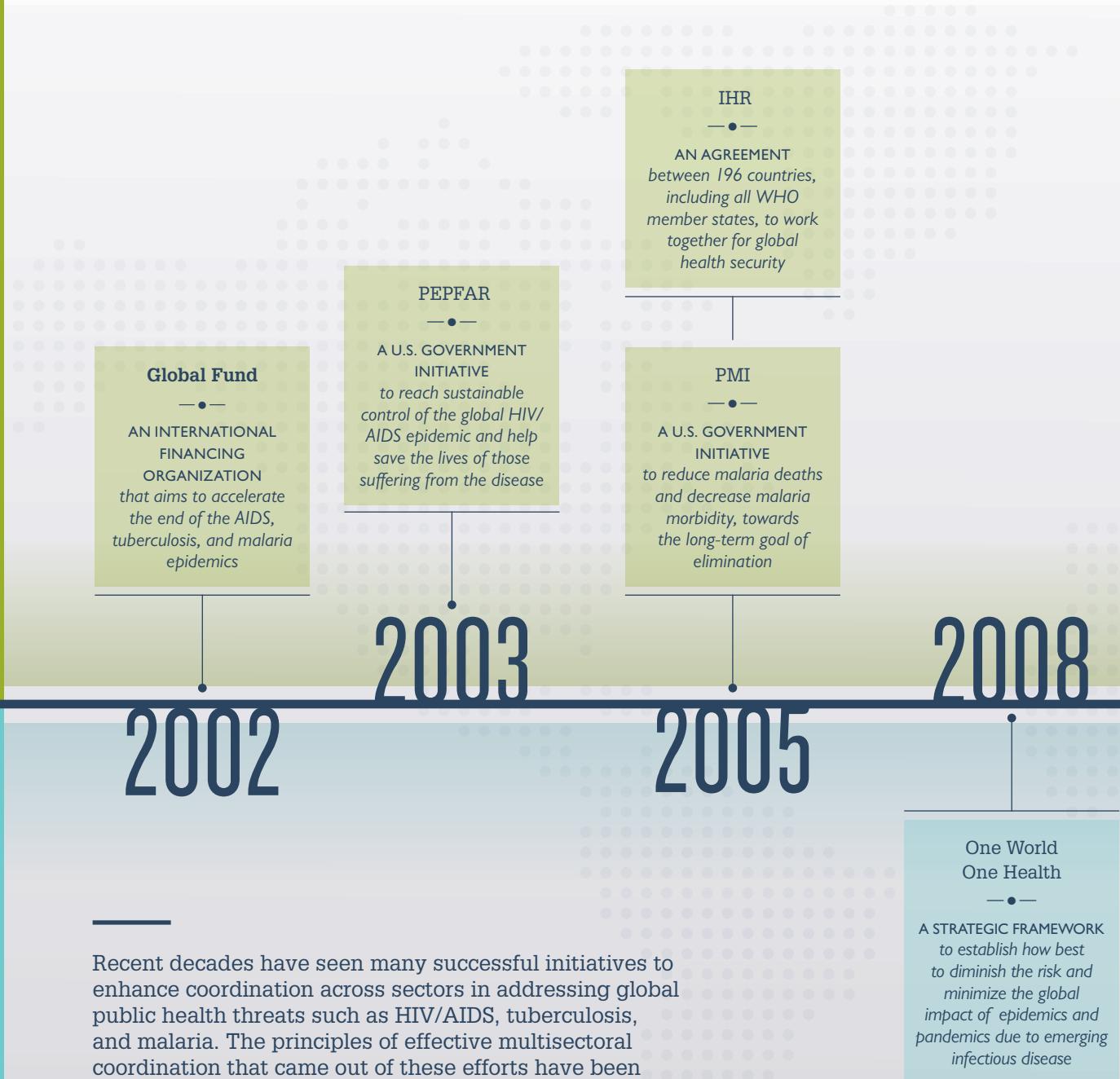
This is the first of two companion publications, both advancing our collective understanding of how to work together more effectively to address public health threats. The second publication, *One Health: An Assessment of Outcomes*, assembles the evidence to show that working together more effectively makes the world safer and more secure from public health threats.

As simple as the idea may sound, institutionalizing the practice of multisectoral One Health will continue to take time and international support.



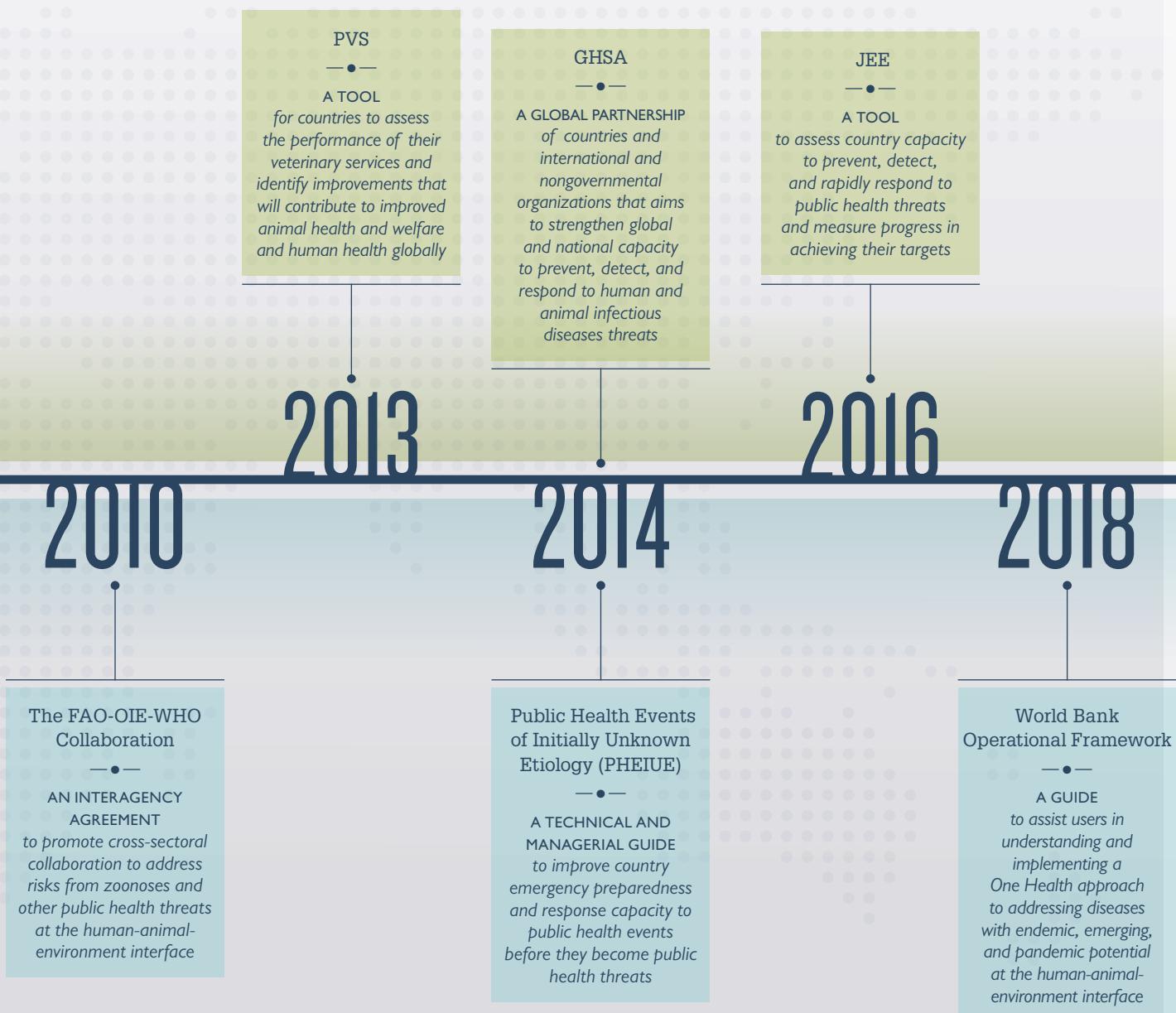
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## MULTISECTORAL COORDINATION AND ONE HEALTH

Managing Global Public Health Threats  
Establishing One Health Through Multisectoral Coordination



**ONE HEALTH** has its roots in responses to disease outbreaks, such as avian influenza, that began in the late 1990s. However, attempts to formalize national One Health coordination mechanisms began following the 2010 tripartite agreement between WHO, OIE, and FAO to work collaboratively to address health risks at the human-animal-ecosystems interfaces.\*



\* The FAO-OIE-WHO Collaboration: Sharing Responsibilities and Coordinating Global Activities to Address Health Risks at the Animal-Human-Ecosystems Interfaces. A Tripartite Concept Note. 2010. Available from: [www.oie.int/fileadmin/Home/eng/Current\\_Scientific\\_Issues/docs/pdf/FINAL\\_CONCEPT\\_NOTE\\_Hanoi.pdf](http://www.oie.int/fileadmin/Home/eng/Current_Scientific_Issues/docs/pdf/FINAL_CONCEPT_NOTE_Hanoi.pdf)

## INTRODUCTION

The increasing number and severity of infectious disease outbreaks over the last two decades – including avian influenza, Ebola virus disease, and severe acute respiratory syndrome, among others – have profoundly affected health, livelihoods, and economies and galvanized global support to take action. In recognition that at least 60 percent of recent severe outbreaks of human illness originated in domesticated animals or wildlife, One Health has emerged as an intentional, interdisciplinary, and collaborative approach to attaining optimal health for people, animals, and the environment. In addition to the zoonotic diseases that spill over from animal to human populations, there are also dangerous and costly vector-borne diseases, antimicrobial resistance (AMR), and food and water safety issues that occur at the human-animal-environment interface. Working together, public health, veterinary medicine, and agricultural and environmental science experts can better prevent, detect, and respond to public health threats than by working in isolation in institutional and disciplinary silos.

Multisectoral coordination offers the promise of effectiveness and efficiency gains. A multisectoral approach ensures public health staff have timelier, more complete, and more accurate information, enabling them to better prevent, detect, and respond to outbreaks (Berthe et al., 2018). Better coordination is also cost effective in that human and animal health providers jointly prioritize diseases and interventions, avoid duplicating tasks, and pool resources (World Bank, 2018). The World Bank estimates that adopting a One Health approach can offer significant savings in reduced costs of stopping an outbreak and increased returns in improved health, food security, and livelihoods to the world's poorest and most marginalized populations (World Bank, 2012). These savings range from an estimated \$184 million per year in low- and middle-income countries in a low-disease prevalence scenario to up to \$505 million for those countries with a higher disease prevalence. (World Bank, 2018).

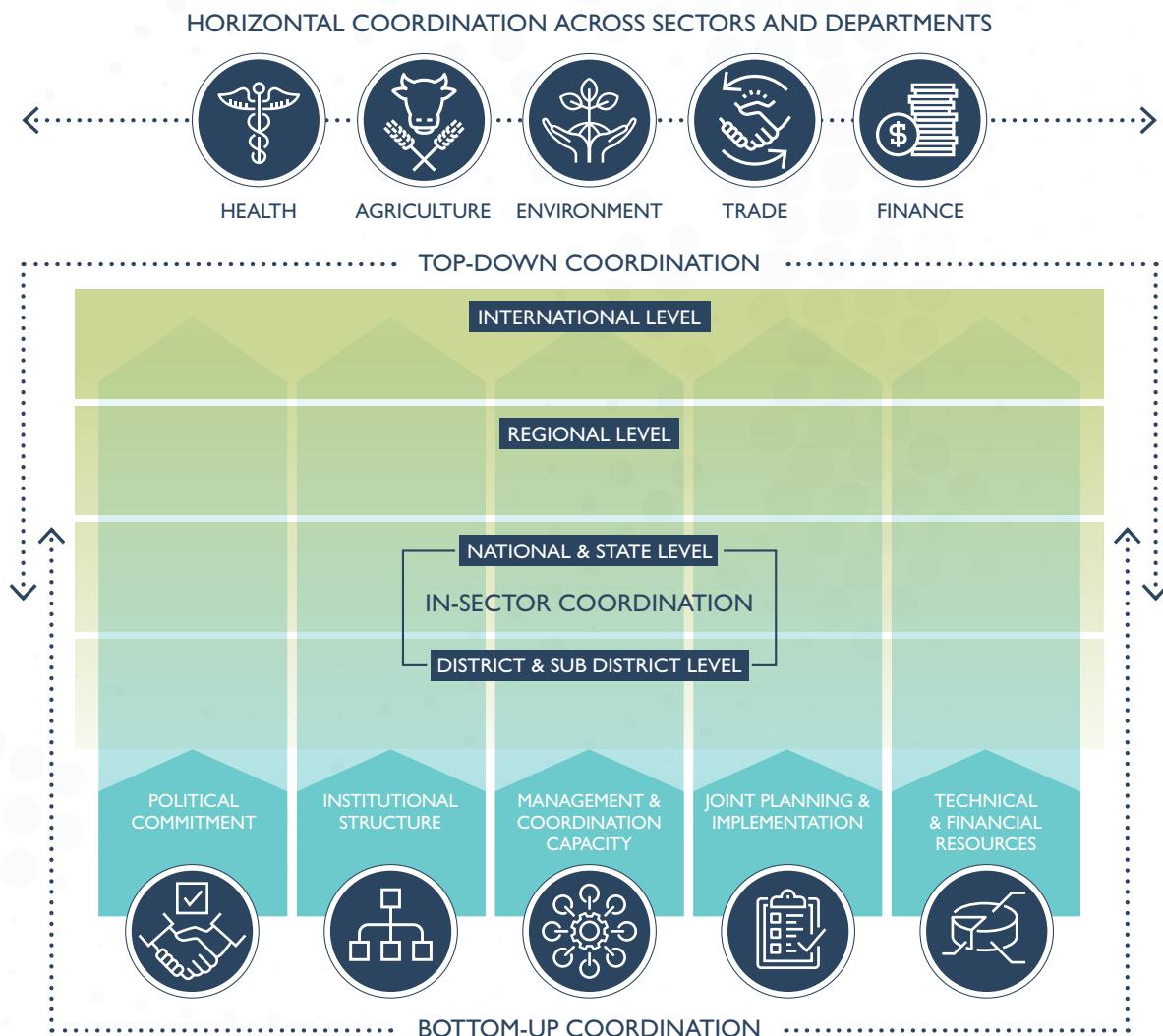
Tackling these complex, cross-sectoral health threats will require a sustained joint effort, without which the human and economic toll will continue to grow. Despite global initiatives and operational guidance that have elevated the One Health approach, institutional challenges in planning, executing, and budgeting for multisectoral coordination have proven challenging (Okello et al., 2014b). Uneven

capacity and resources among key ministries (typically health, agriculture, and environment), working against the status quo, weak incentives for cooperation, and competition for resources among ministries, among other factors, can make collaboration difficult (World Bank, 2018). USAID has made large investments in strengthening capacities in developing countries to prepare for and respond to public health threats. The agency's EPT-2 (Emerging Pandemic Threats) program, building on the learning of its predecessor (EPT-1), is improving the capacity of more than 25 countries in Africa and Asia with investments in improved surveillance, workforce development, and preparedness and response. As a core EPT-2 activity, P&R strengthens national-level multisectoral coordination mechanisms, also called national One Health platforms, and national preparedness and response plans to enhance health security in 16 countries in Africa and Asia. To achieve this objective, P&R has supported countries in implementing the One Health approach by formalizing national multisectoral mechanisms and reinforcing the practice of collaboration between coordinating partners and stakeholders at national, regional, and local levels. By institutionalizing One Health in this way, progress is more likely to be effective and sustainable as the benefits of investing in preparedness become clearer to all.

Drawing on P&R's implementation experience and the qualitative analysis of key informant interviews, this publication identifies the key attributes of effective One Health coordination, offers examples of improved and sustainable coordination activities, and shows how formal multisectoral mechanisms contribute to improved health security. A companion publication, *One Health Interventions: An Assessment of Outcomes*, examines the emerging body of evidence supporting the value of One Health coordination. Other publications in this series include toolkits and guidance for countries seeking to establish and operate multisectoral coordination mechanisms.

Taken together, the publications in this series offer convincing evidence of the effectiveness and potential sustainability of One Health coordination in improving the prevention, detection, and response to public health threats; promising intermediate results and early outcomes of One Health activities in a variety of country contexts; and lessons learned and recommendations for governments, donors, and the health security community.

## Multisectoral Coordination at a Glance



Source: Adapted from WHO, 2018.

**FIGURE 1:** Key informants identified five dimensions as essential to effective multisectoral coordination: political commitment; institutional structure; management and coordination capacity; joint planning and implementation; and technical and financial resources. Coordination occurs horizontally, between sectors and agencies, as well as vertically, between global, regional, national, subnational, and community levels. It is also multidirectional in that the impetus and leadership may flow from the bottom up or the top down. While this complexity is a strength of multisectoral coordination – because it brings together the expertise of all relevant actors and sectors – it also underscores the importance of nurturing and strengthening these relationships over time so that the One Health coordinating mechanism can be established, learn to function effectively, and be sustained over time.

The findings presented in this publication and its companion are based on analysis of multiple sources. First, P&R conducted qualitative research to elucidate key learning across three broad research themes related to multisectoral coordination:

- What factors enable or support effective multisectoral coordination for health security?
- What factors are essential to sustain multisectoral/One Health coordination for health security?
- How does a One Health approach lead to improved health outcomes?

The research team employed a design and sampling methodology that included informants directly involved in One Health coordination. A literature review and the implementation experience of the P&R project also informed our findings. There is very limited quantitative data on One Health coordination in literature.

In qualitative inquiry, the researcher is the instrument. Thus, validity hinges on the skill, competence, and rigor of those conducting the fieldwork. The P&R research team underwent two days of orientation and training, where each interviewer practiced by piloting semi-structured key informant interview guides. The team debriefed and discussed processes and results of the interviews, refining the interview guide in the process. Key informant interviews were then conducted in person or by phone and VOIP and recorded, transcribed, and translated to English (if not conducted in English). A total of 59 stakeholder interviews were analyzed. The use of key informant interview guides ensured that team members covered important elements and questions related to research. The guide for *project staff and government stakeholders* aimed to capture specific

experiences in each informant's country, while the guide for *global partners* aimed to capture global perspectives on One Health and multisectoral coordination. Analysis was aided by Transana, a qualitative analysis software.

Verbal consent was obtained prior to interview, and participants were made aware of the purpose of the research and provided the opportunity to opt out at any time. Interviewees were also informed that participation was voluntary and unremunerated. Not all interviews were presented for analysis in the same manner due to technical difficulties with recording or transcription, or in cases in which informants preferred not to be recorded. In addition, of the 64 stakeholder interviews, two transcriptions could not be completed, and five interviews were not coded in the qualitative analysis software. While interviews were structured by the key informant interview guides, interviews took different shapes to allow for flexible conversations and open-ended follow-up questions.

Limitations include that the qualitative coding and analysis process was not objective, and P&R's method of co-coding by two researchers may have resulted in duplicated instances of codes or differing interpretations of data. Similarly, there is no objective way to verify data captured through participant interview content. However, the impressive degree of convergence across respondent groups gives us confidence that our findings are representative of the populations interviewed.



**F**indings have been organized by five dimensions that the P&R research team identified as most critical to effective and sustainable One Health coordination.

- **Political commitment:** the actions, events, and factors that motivate government and other stakeholders to take concerted action toward establishing and sustaining national One Health coordination mechanisms
- **Institutional structure:** how governments organize their multisectoral coordination mechanisms, including the legal mandate, duties and obligations, lines of authority, and reporting procedures
- **Management and coordination capacity:** the ability to convene partners, meet management and technical standards, monitor and measure progress toward health security objectives, and sustain the commitment
- **Joint planning and implementation:** the engagement of stakeholders to develop national roadmaps, design plans of action, conduct simulations, and manage disease investigations
- **Technical and financial resources:** the identification and mobilization of human, technical, and financial resources needed to operate and sustain coordination mechanisms

None of these dimensions are sufficient in isolation; rather, they are mutually reinforcing, and the evidence indicates all need to be present for national One Health coordination mechanisms to become operational, work effectively, and be sustained.

**Political commitment to improve multisectoral coordination is catalyzed and sustained through the intensive, continuous sensitization and advocacy by One Health champions – technical experts, policymakers, and other stakeholders with knowledge and influence to sustain momentum.**



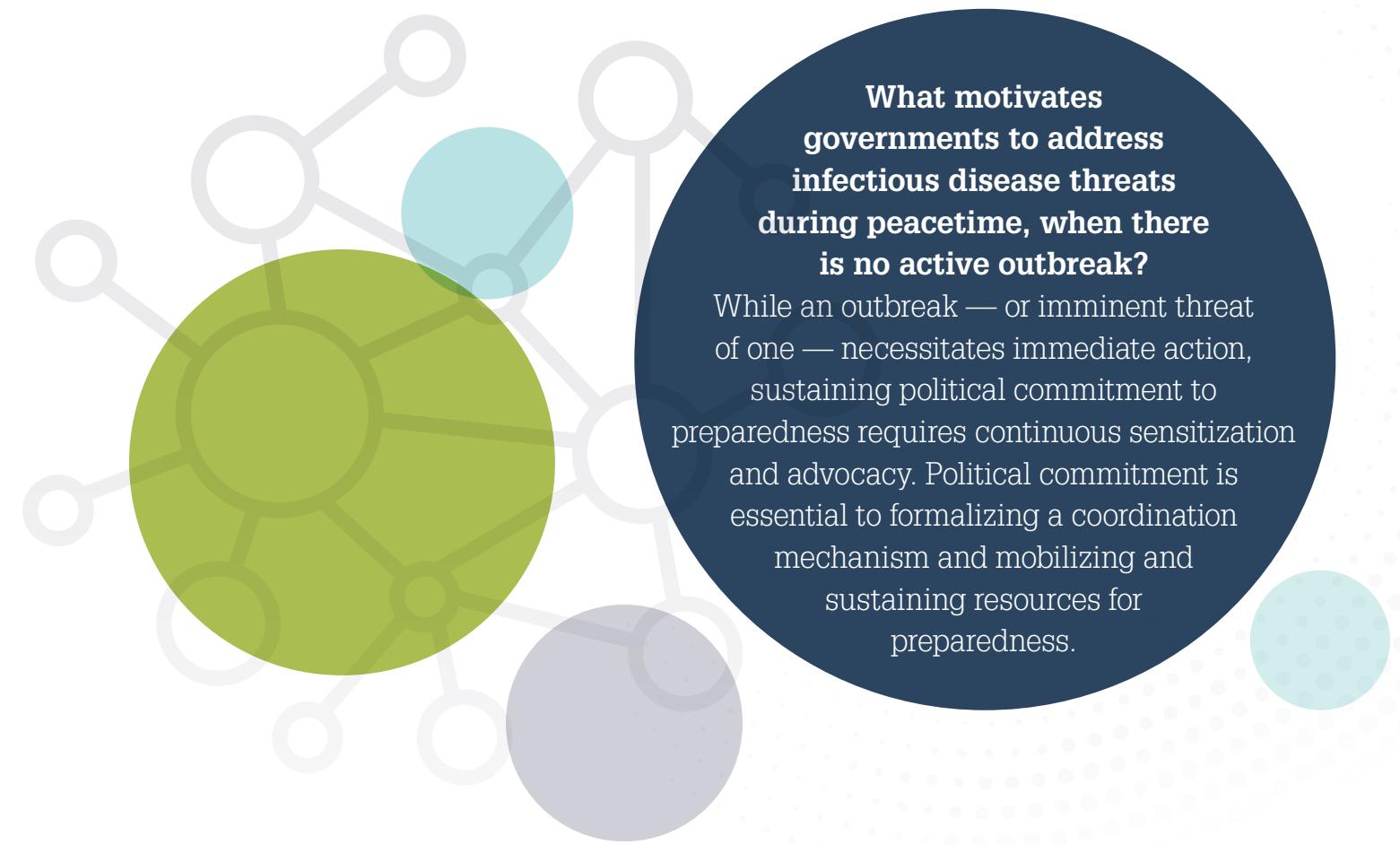
We really need policy and advocacy just to continue to secure political buy-in. If we do not do that, it will reach a point when everything will be derelict. We need to continue to advocate for these multisectoral approaches, and advocacy should be maintained, especially with policymakers. They have a lot of other things to do, a lot of other commitments, and if we do not really continuously advocate for One Health, it might lose pace."

—EAST AFRICA KEY INFORMANT

Policy advocates and One Health champions translate evidence into messages that sensitize decision-makers about the outcomes and benefits of One Health coordination and motivate them to develop or change policies or mobilize the human and financial resources needed for implementation. Continuous sensitization and advocacy efforts promote a culture that elevates the importance of One Health technical integration. Global and regional initiatives that promote One Health and multisectoral coordination can also be influential in advocating for and catalyzing political commitment at the national level.

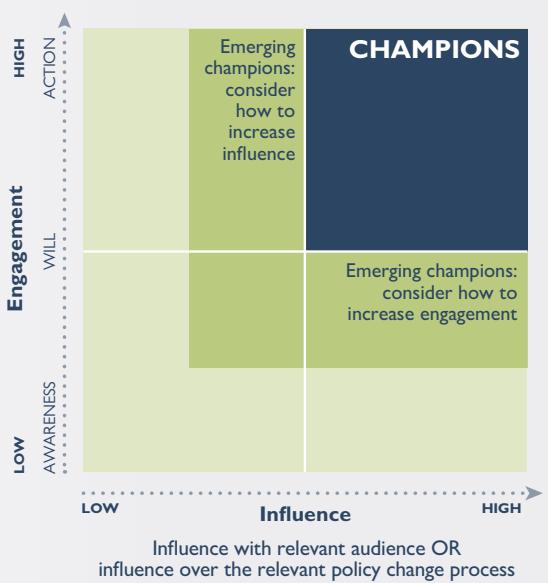
#### MOTIVATING DECISION-MAKERS TO TAKE ACTION

Decision-makers within national ministries and agencies are key to moving One Health coordination from idea to a formalized and funded mechanism. Effective policy champions are informed and influential stakeholders (Figure 2), some of whom come from the ranks of decision-makers themselves, while others come from academia, civil society, or the private sector. Armed with messages and evidence tailored to decision-makers' interests and information needs, these champions provide policymakers with the encouragement and evidence they need to address problems, debate solutions, and pursue specific actions regarding the legal and regulatory framework, national or country policies (including public financing for policies), or operational policies that translate laws and policies into programs and services.



## CASE STUDY

FIGURE 2: IDENTIFYING CHAMPIONS AND EMERGING CHAMPIONS



(Adapted from Roma and Levine, 2016)

### A National One Health Advocacy Strategy for Kenya

In Kenya, many policymakers are unfamiliar with One Health concepts. Furthermore, the private sector, environmental sector, and other stakeholders are not fully engaged, and few agencies at the county level champion a One Health approach. One Health has not been fully incorporated into national strategies and policies, and inadequate government funding and overreliance on donors jeopardize sustainability. To address these issues, Kenya developed a National One Health Policy Advocacy Strategy (2016–2018), which provides a framework to systematically approach each policy priority. Lessons from the implementation of this strategy will contribute to the development of a new One Health strategic plan.

“ This is really very critical and very, very important: having people who are trusted within the government, who are passionate about One Health, who can articulate One Health issues in a very clear way that senior government officials can understand. In our country, for example, ... we have somebody who is very senior, a vice-chancellor of one of the universities, a veterinary specialist, and a One Health champion, who is able to talk to basically anybody, including ministers, and bring out the potential benefits of One Health collaboration.”

-EAST AFRICA KEY INFORMANT

## TARGETING ADVOCACY MESSAGES

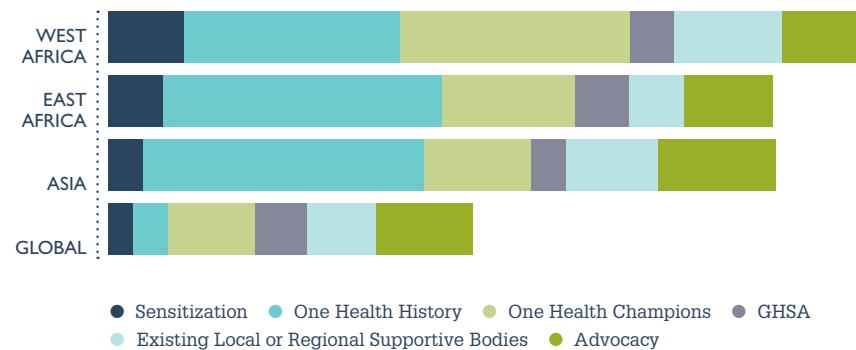
Decision-makers in collaborating ministries have different needs, concerns, and interests. Effective One Health advocates who assemble evidence and tailor messages to their target audiences' needs and goals are more likely to be successful in motivating them to take the desired actions. For example, while ministries of health often have the largest staff and financial resources compared to their agricultural, animal health, livestock, and wildlife partners, their mandates are also often very broad, with many competing priorities. For this audience then, advocates may present evidence of how leveraging and sharing resources among the various ministries harnesses the expertise of all to address issues of common concern and achieve better outcomes than any one organization acting in isolation. Other stakeholders may require different evidence and points of view to be convinced to join the effort. Effective advocacy strategies include stakeholder analysis exercises, conducted periodically, to identify relevant stakeholders. The multisectoral coordination mechanism may also consider nontraditional partners such as the military, ministries of interior and finance, and the private sector, among others, who may all need to be engaged in prevention, preparedness, and response.

## LEVERAGING GLOBAL AND REGIONAL ENABLING ENVIRONMENTS

Global and regional agreements, tools, and initiatives often offer common structures, technical and legal frameworks, and funding that can encourage countries to formalize national multisectoral coordination mechanisms. They may also motivate countries to improve preparedness and response efforts by providing opportunities to showcase their health security leadership in the global and regional community. The WHO International Health Regulations (2005); tools such as the WHO Joint External Evaluation (JEE) and the WHO Africa Regional Office's Public Health Events of Initially Unknown Etiology (PHEIUE) framework (2014); and the launch of the Global Health Security Agenda (2014) helped foster countries' commitment to build their workforces, mobilize resources, and undertake assessments of their capabilities and progress.

The Association of South East Asian Nations (ASEAN), the East African Community (EAC), and the West African Health Organization (WAHO) have created incentives and accountability mechanisms that encourage partner countries to act collaboratively and develop standards and partnerships that can generate and sustain political commitment. The EAC has launched a regional One Health platform and is developing standard operating procedures to put its Regional Strategic Ebola Readiness Preparedness Plan into action. Once completed, the EAC and partner countries will conduct cross-border simulation exercises to identify gaps in joint planning efforts (East African Community website).

FIGURE 3: KEY ATTRIBUTES OF POLITICAL COMMITMENT, BY REGION



*The contents of each key informant interview were coded against potential relevant attributes related to developing and sustaining political commitment. The graph shows a weighted comparison of the importance of the attributes key informants identified, differentiated by region.*

## CASE STUDY

### ECOWAS Helps Catalyze Action in Guinea

Regional organizations may spur concerted action. For example, the 2016 West African Regional Conference on One Health, hosted by WHO, the Economic Community of West African States (ECOWAS), the government of Senegal, and international organizations gathered policymakers, public health experts, and advocates from West Africa to discuss addressing emerging infectious disease outbreaks using the One Health approach. In the resulting communiqué, 38 ministers from 16 West African countries pledged to create a national framework to ensure effective integration of human, animal, and environmental health efforts, and agreed to carry out national risk assessments and set up alert mechanisms for both common and emerging disease outbreaks. They committed to supporting the One Health approach through dedicated domestic budgetary provisions and called on sub-regional and regional institutions to jointly mobilize resources. Following the conference, Guinea, which had been at the epicenter of the 2014 Ebola outbreak, finalized its decision to move forward with formalizing a national One Health coordination mechanism, known as the Guinea One Health Platform. This decision was also influenced by its selection for the World Bank-funded Regional Disease Surveillance Systems Enhancement (REDISSE) project, a \$120 million investment in West African countries to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance.

“ You have to keep nurturing. We’re not done yet. We need to advocate at the top to sustain the progress. There’s more awareness globally now.... This needs to be translated into the minds of decision-makers here.”

—SOUTHEAST ASIA KEY INFORMANT

“

The legal document is critical, because if you don't have it, there is no obligation for sectors to respect or to follow that. Second, if you want to have funds, you need that legal document. It's also the way to make sure the platform will be sustainable, because if the country already mentioned somewhere in a legal document that they are going to fund the platform, that means the country is taking ownership and we can expect them to continue to work after the project ends.”

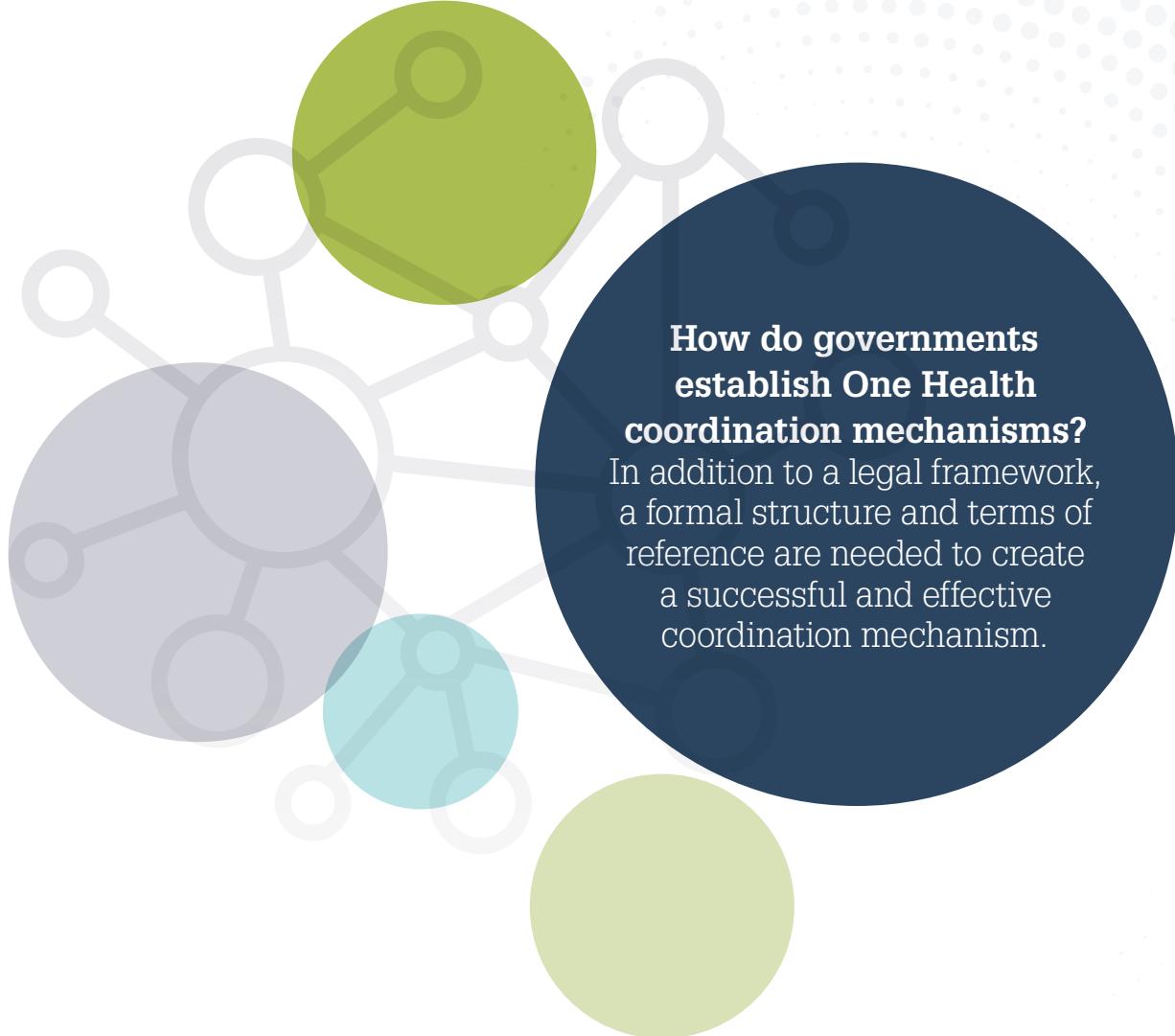
—WEST AFRICA KEY INFORMANT

**While there is no one best way to organize them, effective coordination mechanisms communicate a shared vision and value to diverse stakeholders, across disciplines and within and outside of government so that all are aligned to exercise a greater collective power. In this way, the formal structure may serve as a powerful advocacy tool as well as a source of authority and legitimacy.**

#### FORMALIZING THE MANDATE

While responding to public health events in an ad hoc or poorly coordinated manner is sometimes effective, the success of these efforts is often dependent on existing relationships across sectors. Such efforts are rarely focused on preparedness. Formalized coordination mechanisms with established terms of reference are more likely to weather political changes and make progress toward improving preparedness. The mandate formalizing a coordination mechanism may be issued by presidential decree, legislation, or through a memorandum of understanding between partner agencies. A top-down approach, such as a presidential decree, may be prompted by a disease event, such as when, following the Ebola virus disease outbreak in Liberia, President Ellen Sirleaf Johnson made a public commitment to improving the country's health security. A bottom-up approach, like in Bangladesh (see case study), may have broad support but might also require intensive advocacy over many years to gain policymakers' endorsement.

The structure of the mandate is also an important consideration in determining the effectiveness and sustainability of the coordination mechanism. If the mandate is stated very broadly, the mechanism may find it difficult to prioritize activities or mobilize resources. Conversely, if the mandate is too narrow, many stakeholders may not see the point of joining the effort. For example, Kenya's One Health coordination mechanism, the Zoonotic Disease Unit (ZDU), was developed with a mandate that focused on zoonotic diseases. With the more recent threat of antimicrobial resistance of increasing concern to multisectoral stakeholders in Kenya, the ZDU is broadening its mandate so that this coordination mechanism can be relevant to a wider range of public health threats.



## CASE STUDY

### A Grassroots One Health Movement in Bangladesh

In 2008 a high-level university academic approached colleagues in the Institute of Epidemiology and Disease Control Research and ICDDR,B to propose creating a national One Health movement. They invited civil society organizations, activists, and academics to a One Health organizing conference, which was also attended by development partners, government agencies, research organizations, and academia. The outcome was an agreement, the “Chittagong Declaration,” to advocate for a One Health coordination mechanism with government agencies and stakeholders. The organizers continued to hold discussions, seminars, and conferences up to 2012, when they approached the government about collaborating on a One Health strategic framework. The government, including the Director General of Health Services, the Department of Livestock Services, and the Department of Forest and Environment, agreed to contribute to the development and adoption of the country’s One Health strategy.

## ESTABLISHING THE STRUCTURE AND TERMS OF REFERENCE

In addition to a legal framework, effective One Health coordination mechanisms also need a clearly defined organizational structure, terms of reference, and member responsibilities. In some cases, the structure and terms of reference development begins with a review of existing multisectoral coordination mechanisms as well as mapping the government departments and other partners whose participation is needed.

A clear structure and terms of reference can serve to strengthen government ownership, stakeholder buy-in and engagement, or the ability to respond more nimbly to an outbreak. To that end, most proposed organizational structures include the following:

- an inter-ministerial steering committee to provide policy guidance and mobilize financial resources
- a secretariat to coordinate functions, plan meetings, and organize training
- technical working groups to advise government on policy, strategy development, and implementation

- task forces to oversee implementation of activities, mobilize resources, and monitor and evaluate progress

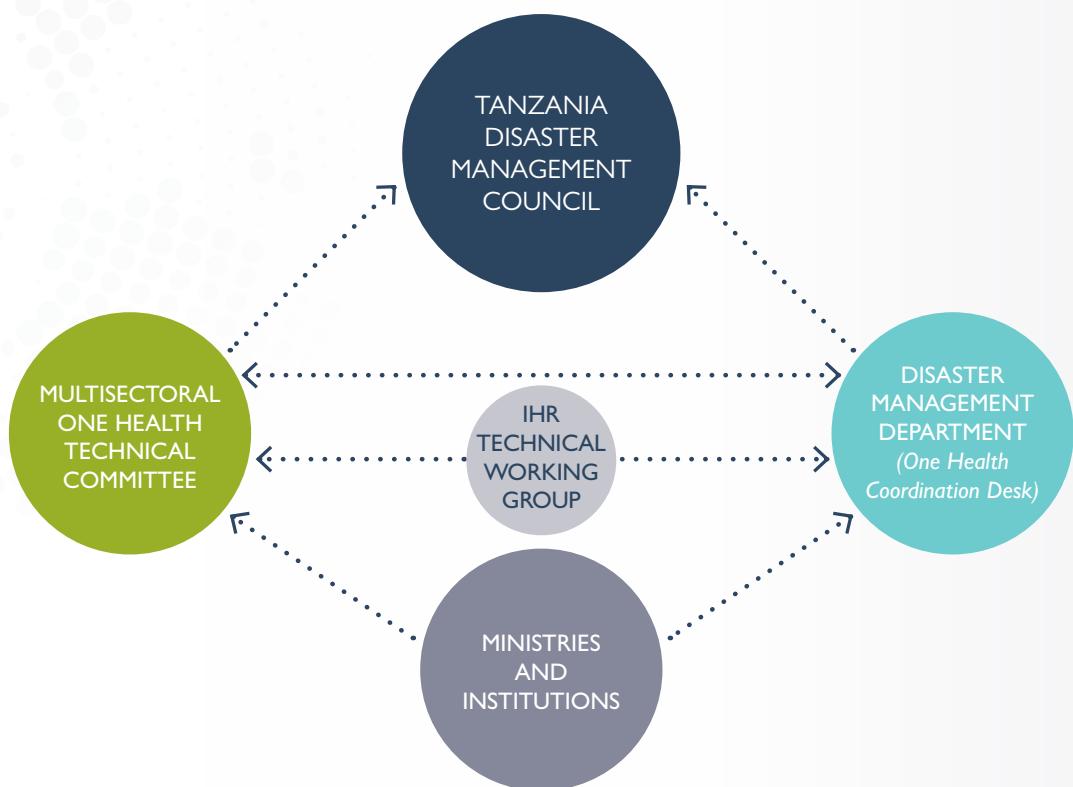
The terms of reference for each of these groups will lay out the mandate, objectives, roles and responsibilities, reporting lines, and membership. Together this comprises the institutional framework for the operations and governance of the mechanism.

In some cases, terms of reference clarify not only how a coordination mechanism works and communicates internally, but also externally with other government institutions and at subnational levels. Indonesia's recently launched One Health Coordination Guidelines clarify roles, responsibilities, and lines of communication between and across collaborating agencies and sectors from the district to the provincial and national levels. These guidelines represent the first time central guidance for One Health regulating subnational coordination in the country's 34 provinces has been developed.



**FIGURE 4: TANZANIA ONE HEALTH PLATFORM ORGANOGRAM**

Tanzania established a Multisectoral One Health Technical Committee to bring together key sectoral and institutional officials to guide One Health adoption in the country and promote sectoral and institutional accountability. The mechanism, reporting to the office of the Prime Minister, is the outcome of a formalized agreement between that office, the offices of the President and Vice President, and the ministries responsible for human health, livestock and fisheries, and natural resources.



## CASE STUDY

### Engaging Nontraditional Partners in Sierra Leone

Because of their multisectoral design, One Health coordinating mechanisms have multiple “owner agencies.” Effective mechanisms will clarify how they intend to work and communicate with other government institutional structures, including nontraditional partners.

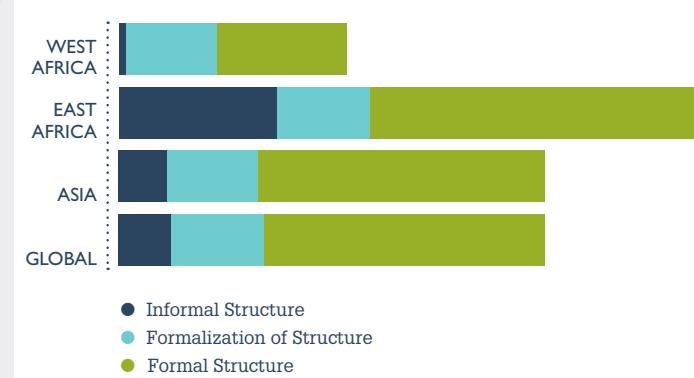
After the 2014–2016 Ebola virus disease epidemic, the Government of Sierra Leone decided to establish a National Public Health Institute to organize and support the national public health strategy, and eventually host the National One Health Platform. While the initial leadership of coordinating the Ebola response was given to the Ministry of Health and Sanitation, Sierra Leone’s Office of National Security (ONS) also had a mandate to coordinate prevention and response to all national emergencies, working closely with local and traditional government authorities. Because of these considerations, a small ONS liaison team was included in the longer-term Ebola response coordinating structures, and since 2016 formal coordination with ONS has been institutionalized.

Emergency operations centers, or EOCs, are multisectoral outbreak response mechanisms, often established with funding by the US Centers for Disease Control and Prevention, but owned and managed by host governments. In Sierra Leone, the EOC is part of the response arm of the National One Health Platform structure and considered as a technical working group. The EOC will be activated during emergencies, working directly with the integrated surveillance, integrated laboratory, and protection working groups to share information.

“ We went to assess the outcome of all this training, and we saw that one of the districts established what they call a multisectoral platform. That was mainly triggered by addressing rabies, given that the district depends on tourism. So there were many people going there and informally working together. Eventually the governor and the district head gave them the mandate to set up this platform at the district office.”

—SOUTHEAST ASIA KEY INFORMANT

FIGURE 5 | KEY ATTRIBUTES OF INSTITUTIONAL STRUCTURE, BY REGION



The contents of each key informant interview were coded against potential relevant attributes related to developing and sustaining institutional and organizational structures. The graph shows a weighted comparison of the importance of the attributes key informants identified, differentiated by region. (Formal structure refers to the presence of a structure with a legal mandate, while formalization of structure refers to the importance of the process.)

**Because it draws on multiple technical sectors, disciplines, and stakeholders from organizations and social sectors with varying interests, multisectoral coordination requires a unique set of governance structures as well as management and leadership skills to convene important decision-makers.**



For leadership training, we invited people from each organization, several ministries, and a civil society organization. Firstly, we wanted to build the capacity of the people who work on One Health, but second we wanted to make a network, for them to know each other and have a connection between each ministry.”

—SOUTHEAST ASIA KEY INFORMANT

When the right elements are in place, partners work together effectively, building the relationships and trust required for multisectoral coordination: planning and implementing joint activities, promoting a culture of information sharing across sectors, and providing opportunities to deepen engagement.

#### STRENGTHENING LEADERSHIP AND COORDINATION CAPACITY

A central function of coordination mechanisms is to sustain and deepen the relationships and trust between diverse stakeholders and to manage and mitigate potential conflicts between partners from different sectors. The capacity to effectively lead an organization through these challenges is a skill that can be strengthened through leadership training efforts and through the practice of facilitating interdisciplinary, results-focused dialogue.

One way to support balanced partner engagement is rotating the chairmanship of the secretariat. In Uganda, the memorandum of understanding between the Ministry of Agriculture, Ministry of Health, Ministry of Water and Environment, and the Wildlife Authority that formalizes the One Health coordination mechanism obligates the signatories to rotate leadership every six months.

Sharing resources among coordinating mechanism member agencies may offer benefits, particularly when they are disproportionately staffed and resourced. In Ethiopia, the One Health Steering



## How do One Health coordination mechanisms achieve results?

By successfully convening partners, demonstrating high management and technical standards, and carefully measuring progress, One Health coordination mechanisms move countries toward their health security objectives during both peacetime and outbreaks.

Committee calls upon any of several technical working groups (rabies, anthrax, brucellosis, and others) to provide technical input into national strategy development. Other technical working groups, like the One Health Communication Technical Working Group, participate in quarterly regional forums. Likewise, in Guinea, technical working groups for surveillance, laboratories, communication, and human resources management hold regular meetings, during which they discuss issues related to the coordination of technical activities and their progress. Through coordination, stakeholders are frequently able to leverage resources they may not have otherwise been able to access.

**“**Capacity building is critical, and just because you've done one workshop it doesn't end. The turnover rate, particularly in low- and middle-income countries, is quite high. The depth of your professional pool is quite thin, so capacity development is long term.”

—GLOBAL KEY INFORMANT

## STRENGTHENING MANAGEMENT STRUCTURES

Establishing clear management and governance processes can help a coordination mechanism organize and guide its operations and affairs, ensure its stability, and protect partners' interests. While the governance of a coordination mechanism will differ from country to country, effective One Health mechanisms share a commitment to good governance and the values of participatory decision-making, transparency, and accountability (Carrington et al., 2008). By distributing and assigning responsibility and authority for decision-making and resource control in transparent and accountable ways, a governance manual is one tool that coordination mechanisms can employ to help ensure that all sectors have a voice, and that partners will be open to other viewpoints. Formalizing and institutionalizing governance processes in a manual that is endorsed by all partners can be particularly useful for nascent coordination mechanisms or in countries where one ministry – often the ministry of health – has outsized staff, resources, and influence relative to other One Health sectors. Liberia and Guinea, for example, developed governance manuals almost immediately following the launch of their coordination mechanisms. The manuals clearly define the decision-making process and identify solutions to common implementation challenges.

Key to effective governance and management of the One Health coordination mechanism are guidelines on when and how to share timely, accurate information. While many may intuitively understand the importance of information sharing, political concerns around the sensitivity of information or the lack of clear guidelines may reduce the ability or willingness to do so. Thus, coordination mechanisms can employ a variety of methods to promote effective information sharing:

- **Technical working group meetings** allow coordination mechanism members to stay engaged and encourage frank discussion of partner activities. For example, in Guinea, technical working groups for surveillance, laboratories, communication, and human resources management hold regular meetings, during which they discuss issues related to the coordination of technical activities and their progress.
- **Communications protocols**, like those outlined in Uganda's communication strategy (see case study), formalize channels and methods of communication that may be relied upon in peacetime and during outbreaks.
- **Knowledge management** facilitates the collection of data, lessons, and best practices for use by partners in decision-making, advocates seeking to mobilize resources or staff, or stakeholders seeking to participate in the coordination mechanism's operations. In Indonesia, improved information sharing allowed cross-sectoral surveillance data to be included in country government risk assessments.

One Health coordination mechanisms may also consider risk communication and community engagement strategies that go beyond simply alerting people about risks, listening to their concerns and giving them enough information to make informed decisions during a public health event – helping to prevent disease spread.

### Measuring Multisectoral Coordination

P&R developed a process and tool that has been used to measure a coordination mechanism's organizational and performance capacity and inform annual planning. The One Health Assessment for Planning and Performance (OH-APP) is an online application ([www.onehealthapp.org](http://www.onehealthapp.org)) administered over the course of a two-day workshop. It is a country-led, participatory self-assessment that complements existing global instruments, such as the JEE. The digital data collection platform incorporates user-friendly navigation to guide work through each module and integrates a real-time data dashboard and printable assessment and action planning report.

## MEASURING PROGRESS

To build a case for continued commitment to and investment in multisectoral coordination, One Health mechanisms can develop monitoring and evaluation plans to measure their performance against objectives identified in their mandate. Measuring preparedness can be a challenge, but One Health strategies, annual work plans, and communications strategies all offer opportunities for coordination mechanisms to establish clear indicators for evaluating performance against specific objectives and changing course if necessary. With an M&E plan in place and operational, the coordination mechanism can rely less on modeled projections or subjectively determined benefits and more on actual outcomes in their own action planning and in advocacy efforts and resource requests (Khan et al., 2018).



**The caliber of people who are driving this process is a major determinant of how successful One Health collaboration will be in a country. If you have got initial people who are strong both in coordination as well as management issues, then the platform can go far."**

—EAST AFRICA KEY INFORMANT

## CASE STUDY

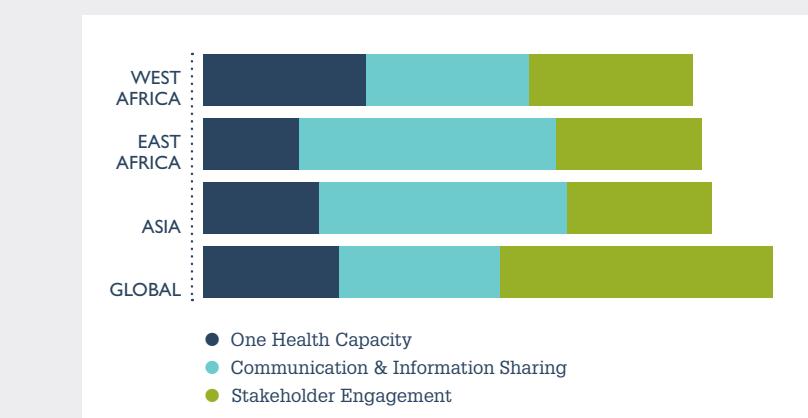
### Uganda Communications Strategy

A clear communication strategy that guides a coordination mechanism's internal and external communications can help stakeholders from different disciplines speak with one voice. Uganda's communication strategy articulates the communication structures and mandates of key stakeholders, provides guidance on how players should work together to strengthen communication, and promotes the importance of sharing information and resources. The strategy's objectives are to:

- engage stakeholders appropriately and meet their expectations in terms of communication and coordination
- create awareness about the One Health approach to zoonotic and other disease threats
- facilitate mainstreaming of the One Health approach in each sector's activities, policies, and plans
- establish and maintain effective communication between the national One Health platform and stakeholders

Importantly, the plan includes indicators for continuously monitoring and measuring staff performance against communication objectives in each sector.

FIGURE 6: KEY ATTRIBUTES OF MANAGEMENT AND COORDINATION CAPACITY, BY REGION



The contents of each key informant interview were coded against potential relevant attributes related to developing and sustaining leadership, management, and coordination capacity. The graph shows a weighted comparison of the importance of the attributes key informants identified, differentiated by region.

**One Health stakeholders may come together for a variety of reasons – coordination (to share information or assess response readiness across sectors), planning (to develop a multisectoral plan that provides a roadmap for future action), or response (to participate in a joint investigation to a disease outbreak). Regardless of the objective, joint activities among One Health stakeholders provide opportunities for partners to work together meaningfully across sectors, areas of expertise, and at all levels of government as well as in communities.**



When you have a structure that does nothing, that does not solve any problem, people let go. But when it concretely solves problems, it facilitates interactions between people, it facilitates high-level decision-making, it facilitates coordinated operations on the field, typically people coordinate together in relation to that.”

—WEST AFRICA KEY INFORMANT

## COORDINATION

A primary function of a One Health mechanism is to convene actors from different sectors to facilitate coordination for preparedness and response. Bringing multisectoral stakeholders together on a regular basis establishes a practice of collaboration, builds relationships across sectors, and reinforces the capacity and convening power of the mechanism into the future. A coordination mechanism may convene a multistakeholder meeting to sensitize partners on the importance of a One Health approach or advocate for increased commitment to and investment in cross-sectoral coordination. Or the objectives could be more specific, for example, to conduct a simulation exercise to jointly test plans, protocols, or standard operating practices; or to assess the capacity or performance of the coordination mechanism, such as during a JEE. These coordination activities can serve as powerful advocacy tools for the coordination mechanism, as partners practice working with each other, improve communications and information sharing, and learn firsthand the benefits of improved coordination.



## **How do national One Health coordination mechanisms implement activities?**

Joint planning and implementation, whether to develop national roadmaps, action plans, or to implement disease investigations, engages stakeholders from all relevant sectors and improves coordination.

### CASE STUDY

#### **Conducting a Simulation Exercise to Improve Preparedness**

In Laos, the Department of Communicable Disease Control conducted avian influenza simulation exercises and after-action reviews in three provinces, bringing together experts from animal health, human health, finance, industry and commerce, and logistics sectors. The exercises tested the Joint National Preparedness and Contingency Plan for Avian Influenza H7N9 and H5NI (among other plans), helped clarify roles and responsibilities in case of an outbreak, and improved interministerial and interdepartmental communication and coordination; one of the simulations included participants from neighboring Thailand and Cambodia and focused on cross-border coordination issues. Most importantly, the exercises helped the partners achieve a common understanding of expectations among implementers and identified areas for further improvement.

“

What requires more support is some of the joint planning activities such as national preparedness and response plans, particularly for the diseases identified in the prioritization exercise facilitated by CDC. We want to leave them with those plans so that they are more ready for the diseases that they've prioritized.”

—GLOBAL KEY INFORMANT

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“If the partners recognize the [One Health] platforms as a resource, that will generate the sustainability. That begins with our GHSA partners. [Zoonotic disease] prioritization workshops with multiple ministries was a good exercise that showed people the value of the platform.”

—GLOBAL KEY INFORMANT

## PLANNING

Joint planning, when well-managed and conducted regularly, reinforces relationships and trust among the partners so that there is not only a concrete technical outcome (for example, a national strategy) but an operational outcome of having an established and effective means of working together. In that way, the planning is as important as the plan. A One Health coordination mechanism is well placed to facilitate multisectoral consensus and adoption of national plans that can further a One Health approach, including:

- **National One Health strategic planning:** In developing or updating a One Health strategic plan, coordination mechanisms can convene partners to jointly outline the country's One Health mission, vision, and values; build consensus around strategic objectives and activities; develop and cost an action plan; and establish indicators to monitor and measure progress and outcomes. The strategic plan does not need to be limited to zoonotic diseases and can incorporate any threat that benefits from a One Health approach, such as antimicrobial resistance. A One Health strategic plan can be foundational for newly launched coordination mechanisms like those developed in Uganda, Sierra Leone, Liberia, Mali, Guinea, Côte d'Ivoire, and Ethiopia. In countries with more established coordination mechanisms, such as those in Kenya, Bangladesh, Indonesia, Cameroon, and Vietnam, the strategic planning process can be useful in reassessing joint priorities or renewing partner commitment to One Health.
- **Zoonotic disease prioritization:** In Bangladesh, Côte d'Ivoire, Mali, Sierra Leone, Rwanda, Tanzania, and Uganda, coordination mechanisms worked with the CDC to facilitate inputs from human health, animal health, and environment sectors to identify the most serious threats as well as to strengthen laboratory capacity, surveillance, and other preparedness and response activities.
- **National preparedness and response planning:** Multisectoral mechanisms in Cameroon, Liberia, Ethiopia, Tanzania, Kenya, and Bangladesh facilitated the integration of a One Health approach into new or existing preparedness and response plans for specific priority diseases or for plans for public health events of initially unknown origin.

Regardless of the specific output, at the core of all joint planning activities are stakeholder consultations that generate institutional support from across all relevant sectors for successful execution of the plan. In addition to One Health partner agencies, the government may include other stakeholders as partners, observers, or technical resources. These groups can include other ministries or agencies, universities and research institutions, the private sector, and development partners. Beyond the benefit of the technical output, these exercises are useful in building trust among partners as they go through the steps.

## RESPONSE

The practice of preparedness leads to more effective multisectoral coordination, which sets the stage for more effective joint coordination of any outbreak response. A coordinated multisectoral response is important not only during an outbreak of a known zoonotic disease like anthrax or avian influenza, but also in public health events of unknown origin, even if symptoms have only been identified in human populations. In Liberia, an unexplained cluster of deaths in Sinoe County in April 2017 prompted a One Health response. When initial tests from human samples were unable to identify a possible cause of death, the investigation team expanded sampling efforts to include animals in the affected communities. The samples later confirmed an outbreak of meningitis.

Disease outbreaks provide an opportunity for countries to test their preparedness.

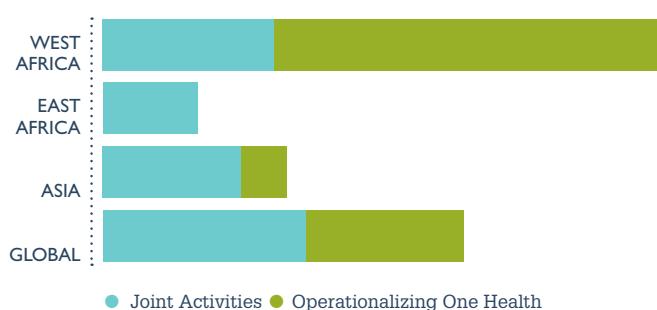
- Are plans and systems sufficient?
- Where can planning be improved to better respond to future outbreaks?
- How quickly were disease investigation teams able to move to confirmation?
- How well was information shared between different sectors?

After-action reviews, a joint assessment of what went well and what can be improved in response efforts, identify concrete ways to enhance capacity, improve performance, and strengthen coordination and communication for better multisectoral preparedness and response.

“To jointly plan, jointly assess performance, jointly conduct after-action reviews: these elements are critical to the learning around how to prevent and detect and respond to outbreaks.”

—GLOBAL KEY INFORMANT

FIGURE 7: KEY ATTRIBUTES OF JOINT PLANNING AND IMPLEMENTATION, BY REGION



*The contents of each key informant interview were coded against potential relevant attributes related to developing and sustaining the capacity to jointly plan and implement activities. The graph shows a weighted comparison of the importance of the attributes key informants identified, differentiated by region.*

“

It is important to have not only a pronouncement that the government will support this platform, but commitment of a certain budget line under each sector's plan to include support for the operation of the One Health secretariat. That was quite a significant achievement to ensure continuity and sustainability of the platform. Of course, the commitment was also complemented with people seconded from the government to work with the secretariat.”

—SOUTHEAST ASIA KEY INFORMANT

**Public health and health security are public goods. Therefore, the coordination of preparedness and response to public health threats across multiple sectors must be led by the public sector. In addition to contributing their own technical, financial, and in-kind domestic resources, national governments can also mobilize and coordinate investments from donors, nontraditional partners, and the private sector, but One Health multisectoral coordination cannot be sustained without national government ownership and leadership.**

### MOBILIZING RESOURCES

When a multisectoral coordination mechanism is formalized and has a clear mandate and strategy, it can better identify and advocate for the resources needed for effective and sustainable multisectoral preparedness and response. In annual work plans, coordination mechanisms can detail the financial and human resources, materials, and time needed to complete each task. Aside from the value of planning with a longer-term objective in mind (even if not immediately financeable), costing the plans provides coordination mechanisms an advocacy tool to mobilize resources (including financial, donated, or in kind) for One Health. With a costed plan in hand, the coordination mechanism can quantify funding gaps (the difference between the budget required and the resources available or expected) and devise a strategy to fill it. A resource mobilization strategy may include advocacy for a line item in the national budget for the coordination mechanism, but may also include a plan for seconding staff, making space or equipment available, and seeking financial, technical, or in-kind support from donors, nontraditional partners, or the private sector.

The private sector can play an important role in contributing to preparedness and response efforts. As disease outbreaks can jeopardize their operations and profitability, many private sector companies have invested technical and financial resources to evaluate on-site risks and vulnerabilities along their entire supply chains and are familiar with the benefits of adopting prevention, preparedness, and response measures. While the private sector may be able to donate goods or services, they can also provide important technical resources around issues such as risk mitigation and community outreach.

Prioritizing the development of adequate and reliable funding sources for preparedness as well as response can reduce the likelihood of outbreaks, avoid delays in mobilizing funding when an emergency arises and, most importantly, save lives.



## How do multisectoral coordination mechanisms sustain operations?

Governments confirm their ownership and leadership when they commit human, technical, and financial resources and leverage contributions from others, including global organizations, donors, and the private sector.

### CASE STUDY

#### Role of the Private Sector in Ebola Virus Disease Response

In 2016, P&R surveyed 23 multinational oil, gas, and mining companies operating in West Africa to understand the actions of the firms during the 2014–2016 Ebola response and to assess their views on industry's role in future outbreaks. Results showed that private sector extractive industry contributed in substantial ways to the Ebola response:

- All companies reacted to varying degrees to the Ebola outbreak.
- Companies shared news of the outbreak via town hall meetings and community outreach.
- All implemented compulsory handwashing at entry points to buildings and concessions.
- Thermal screening was used at entry points and at company offices.
- Most companies coordinated with nongovernmental organizations to assist with distribution of supplies such as sanitation kits.
- Many companies funded nongovernmental organizations to sensitize communities on hand washing, feet washing, culturally appropriate risk mitigation measures, and screening.

Companies agreed that governments must lead and coordinate preparedness and response planning, industry should have a role, and the public sector should engage key private sector actors in preparedness planning before the next large outbreak.

“With funding there are two issues. There's the actual amount that will be required to address an issue. Then there is the structure of the funding: how the funds will be shared or channeled from one sector to another or from the government, so that all sectors have access to funds to do a common activity.”

—EAST AFRICA KEY INFORMANT

**“**We're looking at the people that are being placed into the [One Health] platform. Do they have the technical capacity, but also the coordination capacity, to bring different stakeholders together? I think the way they perform their functions could affect the value they get out of their participation. What we've experienced is that the value of the platform is not well recognized when they don't see the benefit of having to be part of it. This is a continuing challenge.”

—SOUTHEAST ASIA KEY INFORMANT

## RESOURCES

### Select One Health Resources

- WHO's Joint External Evaluation for the IHR Monitoring and Evaluation Framework
- OIE's Tool for the Evaluation of the Performance of Veterinary Services
- CDC's One Health Zoonotic Disease Prioritization Tool
- The One Health Assessment for Planning and Performance (OH-APP)
- P&R Toolkit Series: How to Build Effective, Sustainable Mechanisms to Prevent, Detect, and Respond to Disease Threats

### STAFFING THE COORDINATION MECHANISM

Coordination mechanisms convene stakeholders from different sectors, facilitate decision-making, and provide One Health technical expertise. Therefore, the commitment of human resources and the managerial and technical capacity to deploy these resources is important to success. In some countries, managerial or administrative staff are seconded by participating ministries to the coordinating mechanism's secretariat, and a point of contact from each partner agency or ministry at the director level is assigned to attend technical working group meetings. Countries like Kenya, Bangladesh, and Tanzania, where coordination mechanisms have dedicated full-time staff, and office space are better able to play a leadership role in facilitating multisectoral preparedness and response than those that rely on the support of part-time staff who retain responsibilities to their home ministries.

### OTHER TECHNICAL RESOURCES

In addition to the financial and human resources required to support and sustain multisectoral coordination, technical resources are available to develop and strengthen the institutionalization of national preparedness and response efforts. These resources, developed based on the experience of P&R and many other partners who have been contributing to advancing One Health collaboration globally, include technical expertise, global best practices, tools, and country case studies on strengthening multisectoral collaboration, as well as internal and external evaluations of national One Health capacity and performance.

FIGURE 8: KEY ATTRIBUTES OF TECHNICAL AND FINANCIAL RESOURCES, BY REGION



The contents of each key informant interview were coded against potential relevant attributes related to mobilizing technical and financial resources. The graph shows a weighted comparison of the importance of the attributes key informants identified, differentiated by region.

## CONCLUSIONS AND RECOMMENDATIONS

**A**ddressing the threat of known and unknown pathogens extends beyond the typical One Health stakeholders – veterinarians, physicians, ecologists, and public health practitioners – to include policy-makers, legislators, government agencies responsible for budgeting and planning, and trade and security officials, among others. The problem of infectious disease is multisectoral, so the solution must also be. Furthermore, as multisectoral coordination challenges the status quo of people working in institutional and disciplinary silos, its practice must be purposeful and intentional. It will not happen organically.

Formal multisectoral coordination mechanisms, developed by engaging a diverse set of stakeholders and owned and supported by country governments, are the best way to ensure that effective and sustainable multisectoral coordination takes place. This publication focuses on the factors relevant to building and strengthening effective multisectoral coordination mechanisms.

Through P&R's experience, and with this research, we have identified five key dimensions of multisectoral coordination. Each is necessary and mutually reinforcing – none can sustain multisectoral coordination on its own.

### Political Commitment

Technical guidance, legal frameworks, and funding from regional organizations like the EAC and global initiatives like GHSA can help catalyze political commitment, but a **legal mandate is essential to establish a formal multisectoral coordination mechanism** and help it survive political instability or changes of leadership at the national level. Continuous advocacy, meanwhile, is important to ensure that national decision-makers understand the mechanism's value, and particularly how it can support prevention, detection, and response.

### Institutional Structure

The structure of a formal coordination mechanism depends largely on the political economy of One Health in the country, which will in turn help determine the reporting lines to responsible ministries, departments, and agencies. A high-level steering committee, an operational secretariat, and technical working groups are common features of effective mechanisms. However the mechanism is structured, **clarity in organization and terms of reference is central** to securing government ownership, building stakeholder engagement, and developing the capacity to respond to a disease event.

### Management and Coordination Capacity

Coordination mechanisms need to be well managed by skilled leaders, but **the importance of “soft skills” to a**

### **mechanism's effectiveness should not be overlooked.**

Management and coordination capacity at all levels of the system are critical to effective operational multisectoral coordination, while annual work plans, guidelines for internal and external communication, and monitoring and evaluation frameworks help support it.

### **Joint Planning and Implementation**

**Joint planning and collaborative implementation of technical activities build relationships and trust among partners.** They also demonstrate the value of multisectoral coordination as resulting plans and activity reports document the benefits gained by working across disciplines and stakeholder groups.

### **Technical and Financial Resources**

**One Health multisectoral coordination requires national government ownership, leadership, and commitment of resources to be sustained.** National governments can also mobilize and coordinate investments – technical, financial, and in-kind – from development partners, research institutions, and the private sector.

## RECOMMENDATIONS

International, regional, and national organizations interested in comprehensively addressing disease threats should explicitly support One Health and multisectoral coordination mechanisms designed to achieve this end. Partners at all levels should commit resources – political, technical, and financial – for establishing, institutionalizing, and sustaining these mechanisms, and they should recognize that multisectoral coordination requires time to establish. Since the biggest hurdle to establishing these mechanisms may be resistance to change and entrenched individual and institutional interests, national-level leadership and political commitment are critical.

To foster effective and sustainable One Health multisectoral coordination mechanisms, interested parties should support the development of the five dimensions described above: political commitment, institutional structures, management and coordination capacity, joint planning and implementation, and technical and financial resources. Robust coordination mechanisms demonstrate strength in all these areas.

In our companion publication, *One Health Interventions: An Assessment of Outcomes*, P&R outlines recommendations to improve available research on One Health and documentation of its outcomes, with the hope that improving available evidence will strengthen commitment to formal multisectoral coordination at all levels of government.

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