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### Panel 1: The intersectoral collaboration on Health and Agriculture for the Sustainable Development Goals: Governance of Zoonotic Diseases

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#### TECHNICAL DOCUMENT

#### Multisectoral Governance for Managing Emerging, Re-Emerging and Endemic Zoonoses Risks

#### EXECUTIVE SUMMARY

1. In recent years, global public health security has been threatened by zoonotic disease emergence as exemplified by outbreaks of H5N1 and H1N1 influenza viruses, SARS, and most recently the Middle East respiratory syndrome coronavirus (MERS-CoV), Ebola and Zika viruses. While emerging zoonoses are often a greater concern to decision-makers and development partners, endemic zoonoses have a greater societal impact on neglected populations than emerging diseases.
2. Efforts for the control of high-impact diseases have highlighted the need for intersectoral collaboration, and shown that success is possible when functional collaboration between stakeholders and robust governance are established at different levels.
3. Intersectoral governance mechanisms have often been established in response to crises to address specific risks. However, reports show that the trust between stakeholders and with the community to support efficient intersectoral governance cannot be spontaneously generated. Trust must be developed through planned and regular interactions with all the stakeholders around endemic zoonotic risks that allow for the training and testing of people and processes, and on which future coordinated responses to any emerging risks may be developed.
4. Multiple reports show the relevance of emerging and endemic zoonoses in the Americas. A recent study conducted by PAHO shows the widespread presence of capacity gaps in the Region for the control of zoonoses. There is a need to improve national and regional approaches to integrating zoonoses surveillance, joint risk management, monitoring and evaluation mechanisms, and communication of benchmarks and successes. All of these developments will require robust and auditable governance mechanisms based on recognized best practices, at regional, national and local levels.
5. This panel recognizes first and foremost the role of the International Health Regulations (IHR, 2005) in the development of countries' health capacities at the animal-human health interface, along with the relevant OIE norms and standards. Within these frameworks, the panel recognizes the role of RIMSA as the platform to promote regional implementation of best practices in One Health governance. The panel aims at identifying a roadmap of activities, coordinated by the Veterinary Public Health program/PANAFTOSA (OPS/OMS), also OIE Collaborating Centre on Veterinary Public Health, leading to a properly governed intersectoral approach to zoonoses control in the Americas.

## **INTRODUCTION**

In recent years, global public health security has been threatened by zoonotic disease emergence as exemplified by outbreaks of H5N1 and H1N1 influenza virus, SARS, and most recently the Middle East respiratory syndrome coronavirus (MERS-CoV), Ebola and Zika viruses. In a 2001 risk assessment, it was estimated that 75% of the emerging pathogens were zoonotic (Taylor et al 2001). Other studies report that 60 to 70% of emerging infectious diseases (EIDs) events in humans have an animal origin (Jones et al., 2008; Wang et al., 2014). The rising number of emerging zoonoses may be driven by “modernization of farming practices, particularly in the developing world, habitat destruction, human encroachment and climate change” to support a growing population (Cutler et al, 2010; Wang et al., 2014). Latin American and Caribbean (LAC) countries are not impervious to the occurrence of emerging zoonoses. Seventy percent of public health emergencies in the Americas reported to the WHO from 2007 to 2008 were classified as zoonoses or communicable diseases common to humans and animals (Schneider et al., 2011).

Although emerging zoonoses are often of greater concern to decision-makers and development partners, endemic zoonoses have a greater societal impact on neglected populations than emerging diseases (Grace et al., 2012). Many endemic zoonoses are part of the group of neglected infectious diseases (NIDs) that “affect mainly poor and marginalized populations in low-resource settings” (WHO, 2015), with their presence reflecting clear inequalities in health. Within LAC countries, it has been suggested that the burden of NIDs likely exceeds the burden from malaria, tuberculosis, and possibly HIV (Hotez et al., 2008).

To gather baseline information on the region’s priority zoonoses and capacities to target technical cooperation to countries, PANAFTOSA/PAHO conducted a survey in early 2015 of fifty-four Ministries of Health (MoH) and Agriculture (MoAg) in the region. Avian influenza (AI), Ebola (EVD), and Bovine Spongiform Encephalopathy (BSE) were the most reported emerging zoonoses of concern, whereas rabies, leptospirosis, brucellosis, tuberculosis, and salmonellosis were the most reported endemic zoonoses of concern at the time (PAHO, 2016).

## **WHAT IS REQUIRED?**

Despite the importance of emerging and endemic zoonoses in LAC countries, there are no national or regional disease burden estimates in the Americas for many zoonoses (Hotez et al., 2008). Without this information, it is difficult to plan for and adequately support disease control and prevention programs either at the national or regional level.

Efforts for the control of high-impact diseases (e.g. avian influenza) have highlighted the need for intersectoral cooperation, and shown that success is possible when functional collaboration is established between national stakeholders (WHO, 2010). The need for robust intersectoral governance mechanisms to prevent and prepare for public health risks of animal origin has long been identified as priority by international organizations ever since the first Veterinary Public Health international programs were established at WHO and PAHO in the 1950s (WHO, 1970). We refer here to the governance of public goods and services as a responsibility of the public sector authorities. The United Nations Development Program (UNDP) defines governance as exercising political, economic and administrative authority in the management of a country’s affairs at all levels, and lists the following good governance principles: participation, consensus orientation, strategic vision, responsiveness, effectiveness and efficiency, accountability, transparency, equity and the rule of law. In addition, good governance must be predictable (World Bank, 2009), and requires a number of enabling conditions, namely, standards, information on performance, and incentives (Msellati et al., 2012). The

aforementioned enabling conditions and governance principles should constitute the benchmark against which all intersectoral national and international approaches for the control of zoonoses should be measured.

To address health risks at the animal-human-ecosystems interface, the International Health Regulations (IHR, 2005) and the World Health Organization for Animal Health's (OIE) code and standards provide legal frameworks both for disease reporting and capacity assessment and development for zoonotic diseases. Recently, the Food and Agriculture Organization of the United Nations (FAO), the OIE, and the World Health Organization (WHO) have been calling for improvements in governance to enhance coordination between international agencies, including a joint Ministerial Conference as a coordination mechanism at national, regional and global level, and permanent intersectoral committees at local and country levels (WHO, 2010). Other international organizations have shown the efficiency and effectiveness gains of implementing One Health (World Bank, 2012).

The importance of local level committees as a vehicle to build trust between stakeholders and with the communities cannot be overstated (PAHO, 1993). This trust is unlikely to develop from occasional responses to crises or to rare emerging events. On the contrary, trust must be built through the planned and regular interaction with all the stakeholders around endemic zoonotic risks that allow for the training and testing of people and processes, and on which to build future coordinated responses to crisis due to emerging risks. The Ebola virus disease (EVD) epidemic in western Africa illustrated the impact of widespread lack of trust, misunderstanding and fear of health authorities' actions on disease control efforts (Kai-Lit Phua, 2015). Health promotion and health education to reduce exposure to endemic risks and build community engagement are the best means to ensure community participation during emerging events. In other words, activities towards the prevention and control of endemic zoonoses would facilitate, when necessary, the most effective response to early detection and proper risk management of emerging zoonoses. Despite extensive recognition of the need for a wide stakeholder base for the control of zoonoses, only 44% of the Ministries of this Region had a formal written agreement with universities, 24% with non-governmental organizations, 33% with the private sector, and 19% with other organizations including scientific groups, the central government, regional authorities, emergency committees, and the community (PAHO, 2016).

Recommendations on governance need to be complemented with capacity building for the efficient intersectoral control of zoonoses, specifically on methodological developments to integrate environmental, animal and human health surveillance data to comprehensively assess zoonotic risks (PAHO, 2012).

Concerning capacity development for the control of zoonoses, the recent survey conducted by PAHO also shows a heterogeneous picture across the region that could translate into vulnerabilities in the region's zoonoses control efforts. This heterogeneity in capacity development is also found at the Ministerial level. In general, MoHs show greater capacity than MoAg for the control of zoonoses. Diagnostic laboratory capabilities were cited by most ministries as the most important disease-specific capacity requiring improvement for rabies, leptospirosis, and brucellosis, and surveillance for AI and EVD. Despite the widespread recognition that the impact of NIDs affects mostly marginalized populations, only 46% of MoH and 23% of MoAg stated that they consider equity issues in their prioritization and allocation of resources for the control of zoonoses. The survey also shows that there is a clear appetite in the region for outputs such as a regular report with information on epidemiology of zoonoses in the region, on control, economic impact, and collaboration.

## CONCLUSION

As seen above, given the importance of emerging and endemic zoonoses in LAC countries, the required intersectoral approach to their efficient prevention and control, and the identified capacity gaps across the region, there is a need to improve national and regional approaches to integrated surveillance, joint risk management, monitoring and evaluation mechanisms, and communication of benchmarks and successes. The panel recognizes that all of these developments will require robust and auditable governance mechanisms in place based on recognized best practices, at the regional, national and local levels. Furthermore, the panel recognizes:

- The importance of developing long-lasting trust between stakeholders and with the community through planned and regular interactions around endemic zoonotic risks on which future coordinated responses to emerging risks may be developed.
- That the delivery of zoonosis programs following robust governance principles leads to efficiency gains derived from a focus on prevention and upstream interventions; more so if interventions target other sectors (e.g. commerce, education) in clear appreciation of the consequences of public policies on health determinants.

The panel recognizes first and foremost the role of the International Health Regulations (IHR, 2005) in the development of countries' health capacities at the animal-human health interface, along with the relevant OIE norms and standards. Within these frameworks, the panel recognizes the role of RIMSA as the platform to promote regional implementation of best practice in One Health governance. The panel aims at identifying a roadmap of activities, coordinated by the Veterinary Public Health program/PANAFTOSA (OPS/OMS), also OIE Collaborating Centre on Veterinary Public Health, leading to a properly governed intersectoral approach to zoonoses control in the Americas.

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