



World Organisation
for Animal Health
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TECHNICAL ITEM I

**One Health: Coordination, Communication and
Cooperation between Veterinary, Public Health and
Environmental Protection Services Across the
Members of the Region**

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Executive Summary

This report presents a comprehensive assessment of One Health coordination efforts among Members, highlighting key findings, challenges, achievements, and pathways of change within the framework of the One Health Joint Plan of Action (JPA). The analysis is based on data collected from 18 Members of the World Organisation for Animal Health (WOAH) in the Middle East region and focuses on three main pathways.

Pathway 1: Governance, Policy, Legislation, Financing, and Advocacy

Pathway 2: Organizational & Institutional Development, Implementation, and Sectoral Integration

Pathway 3: Data, Evidence, Information Systems, and Knowledge Exchange.

Overall, WOAHA Members have made considerable progress in **Pathway 1** with regards to governance and policy coordination. However, while some have secured dedicated funding, others plan to advocate for increased national funds, seek international support, develop grant proposals, or establish dedicated funds to address cross-sectoral health challenges. The report also highlights a significant gap in coordinated resource allocation mechanisms, with 83% of Members lacking such systems. Meanwhile, **Pathway 2** has seen notable progress, particularly in integrating environmental health into policies and capacity building efforts. Nonetheless, no Member reported joint efforts involving foodborne outbreak investigation, cross-sectoral water safety committees, integrated water quality monitoring, or collaborative waterborne disease surveillance.

Furthermore, **Pathway 3** witnessed suboptimal progress across Members, with the majority (56%) lacking integrated or sustained surveillance systems. Moreover, critical mechanisms like established One Health research institutes, joint research committees, integrated knowledge platforms, and joint One Health conferences are absent in all Members. Notably, while half of the Members expressed the ability to create an enabling environment for effective One Health implementation, the majority reported the vital need for international support in laying the foundations for One Health capacities. This entails developing the mechanisms, tools, and proficiencies necessary to facilitate a competent One Health workforce.

Some key achievements were also highlighted in this report, including the development and adoption of one health strategic frameworks, plans for early detection, warning, and response for zoonosis outbreaks, data and information sharing across ministries, international collaboration, disease control, awareness, and capacity building efforts. Overall, Members have demonstrated considerable commitment to One Health coordination, albeit several shortcomings were highlighted. Working towards balancing progress across the three pathways is crucial for advancing multisectoral coordination and addressing complex health challenges effectively.

Background

The One Health Joint Action Plan (OH JPA), formulated through a participatory process of the quadripartite organizations (FAO, UNEP, WHO, UNEP, & WOAAH), presents series of activities aimed at enhancing cooperation, communication, skill development, and alignment across sectors responsible for addressing health threats at the intersection between humans, animals, plants, and the environment (Figure 1).

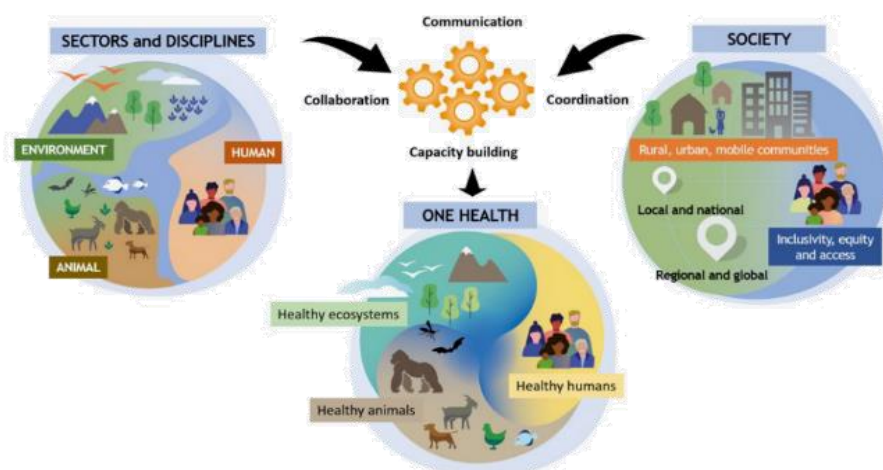


Figure 1. Links between the health of the environment, humans, animals, and plants

This inaugural unified plan for One Health strives to establish a structure that integrates capacities and systems to collectively enhance our ability to prevent, anticipate, identify, and respond to health risks. Ultimately, this endeavor aims to enhance the well-being of humans, animals, plants, and the environment, while also contributing to sustainable progress.

The five-year strategy (2022-2026) concentrates on fortifying and extending proficiencies in six main areas (**Figure 2, Box 1**):

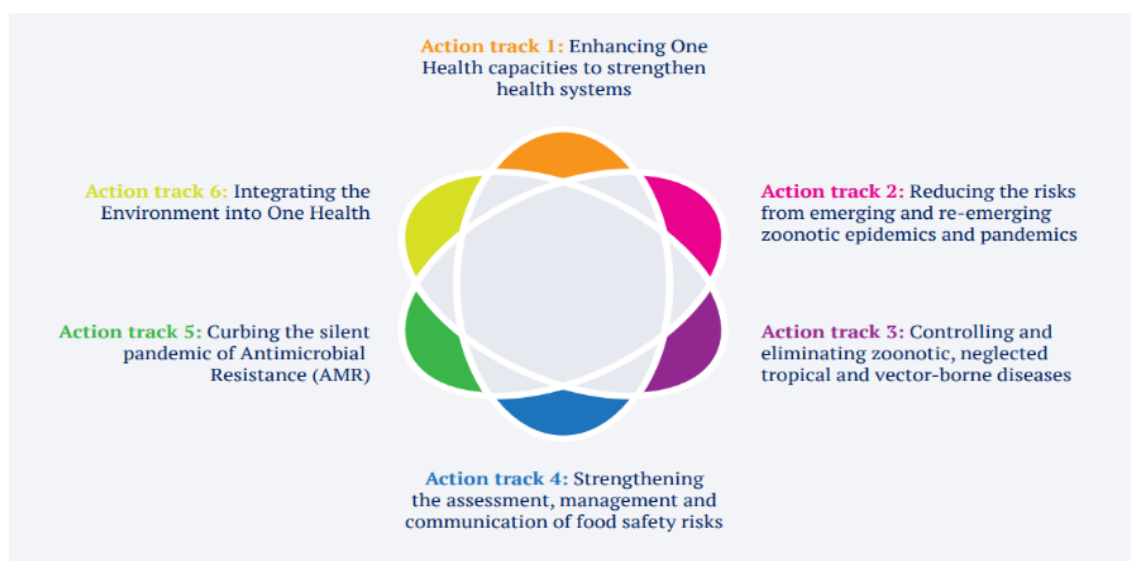


Figure 2. The Six Action Tracks of the OH JPA

Box1: The Six Action Tracks of the OH JPA

Action track 1: Enhancing One Health capacities to strengthen health systems.

This action track has three main actions focusing on strengthening One Health collaborative capacity to support One Health coordination. It provides adequate guidance and tools for the effective implementation of multisectoral approaches to promote the health of humans, animals, plants and ecosystems and to prevent and manage risks at the human–animal–plant–environment interface.

Action track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics.

The objective of this action track is to reduce the risk and minimize the impacts of zoonotic epidemics and pandemics. As indicated in the OH JPA, this can be achieved by three main actions including the understanding the linkages and drivers of emergence and spillover, adopting upstream prevention measures and strengthening One Health surveillance, early warning and response systems.

Action track 3: Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases:

The activities of this action track focus on supporting countries in implementing community-centric, risk-based solutions, strengthening policy and legal frameworks, and increasing political commitment and investment.

Action track 4: Strengthening the assessment, management and communication of food safety risks

The objective of this action track is to ensure that humans, animals, and ecosystems achieve health and remain healthy in their interactions with and along the food supply chain through promoting awareness, policy changes and action coordination among stakeholders.

Action track 5: Curbing the silent pandemic of Antimicrobial Resistance (AMR)

The aim of this action track is to collaboratively preserve antimicrobial efficacy and ensure sustainable and equitable access to antimicrobials for responsible and prudent use in human, animal, and plant. This track involves national, regional, and global actions.

Action track 6: Integrating the Environment into One Health

There is a growing global effort to integrate the environment into the One Health with the recognition that the health of humans, domestic and wild animals, plants and the environment are closely linked and interdependent. Therefore, it is fundamental to identify and balance the environmental sector that need to be fully integrated into the One Health approach.

Furthermore, the plan outlines concrete objectives, which encompass providing a framework for action, namely underscoring the Theory of Change towards united and synchronized efforts to incorporate the One Health approach at all tiers; offering early-stage policy and legislative guidance and practical support to aid in establishing national goals and priorities; and encouraging cross-border, multisectoral, multidisciplinary cooperation, knowledge sharing, and the exchange of solutions and technologies. It also nurtures principles of collaboration and shared accountability, multi-sector action, gender equality, and inclusivity.

The Theory of Change for One Health

The foundational principle of the Theory of Change is rooted in the understanding that the impacts of human actions on our environment and the boundaries of our planet hold a deep and significant influence over the health and overall welfare of humans, animals, and the interconnected ecosystems we inhabit together. Consequently, it has pinpointed a range of interconnected challenges within societal, animal, and environmental realms, which emanate from diverse categories of human activities. These challenges function as influential elements that contribute to risks and susceptibility to compromised health for humans, animals, and ecosystems.

In parallel, the Theory of Change recognizes the underlying technical, coordinative, collaborative and institutional challenges hindering the effective implementation of One Health at the global, national and subnational level. It was therefore developed to support the integrated, multisectoral, holistic and transplant One Health Approach in solving such pressing health issues and make use of One Health principles to strengthen collaboration, communication, capacity building and coordination across three pathways of change. Accordingly, the six JPA action tracks are immersed within three main pathways of change as described below (**Figure 3**):

1. Pathway 1: Governance, policy, legislation, financing and advocacy

This pathway encompasses all aspects of a national multisectoral, One Health coordination mechanism for the institutionalization of intersectoral governance, policy development, political will expressed through high-level advocacy, prioritization, enabling regulatory frameworks, dedicated financing and investment. This also includes raising awareness of the One Health approach among all stakeholder groups.

2. Pathway 2: Organizational and institutional development, implementation and sectoral integration

This pathway includes all aspects of putting One Health into action, including multisectoral and multidisciplinary capacity development at national levels, community engagement and mobilization for action, and the equitable integration of sectors.

3. Pathway 3. Data, evidence, information systems and knowledge exchange.

This pathway comprises of strengthening the scientific evidence base and of information systems, knowledge translation into data for evidence, technical tools, protocols, guidelines, information, and surveillance systems, and the sharing of data and evidence between sectors, stakeholder groups and Members.

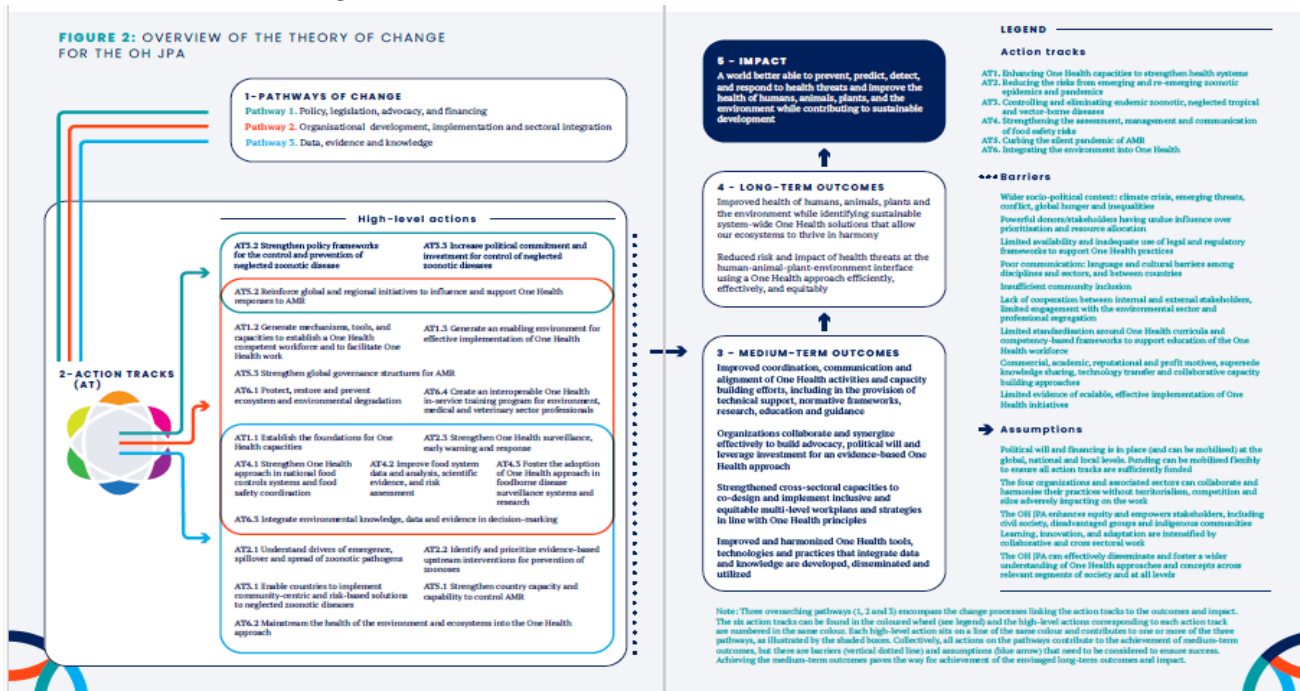


Figure 3: The OH Joint Plan of Action Theory of Change

Context

During the 89th General Session held in May 2022, the WOA Regional Commission for the Middle East adopted “One Health: coordination, communication and cooperation between Veterinary, Public Health and Environmental Protection Services” as the Technical Item 1, to be presented during the 17th Regional Conference.

To develop the technical Item 1, a questionnaire was created by designated experts, **Dr Salama Almuhaire**, HazMat Research and Development Manager, National Emergency Crisis and Disaster Management Authority of United Arab Emirates and **Dr El Moubasher Abubakr Farag**, Acting Head of Communicable Diseases Control Programs of the Ministry of Public Health of Qatar, both of whom are Members of the One Health High Level Expert Panel (OHHLEP), which is advisory group for the Quadripartite organizations. Questionnaire responses were sought from WOA Delegates in the region. All Members, except Djibouti and Iran, provided responses.

We aim to report on these responses arranged by the three pathways of change of the One Health Joint Plan of Action (OH JPA).

Objectives

1. The main objectives of the presentation of technical item 1 during the Regional Conference are:
2. To set a clear view of the current regional situation in terms of implementation of the One Health approach underlining aspects related to the coordination, communication and cooperation between Veterinary, Public Health and Environmental Protection Services.
3. To explain the gaps as well as the weaknesses and the strengths encountered at regional level when it comes to the implementation of the One Health approach.
4. To provide recommendations for future action by WOA Members at national level as well as regarding potential support to be provided by WOA and its partners, and applying the Quadripartite tools and frameworks, to facilitate the implementation of the One Health approach at national and regional level, in particular to foster interagency collaboration, coordination and communication between the three services and their stakeholders to strengthen multisectoral engagement for addressing health threats.

5. To seek opportunities for resource mobilization including applying to the Pandemic Fund.
6. To identify success stories in the Region regarding the implementation of the One Health Concept.
7. To enable an interactive discussion among participants allowing the Regional Commission to propose some recommendations to the Members as well as to WOAHA and its partners, to improve the implementation of the One Health approach at national level through enhanced collaboration, coordination and communication.

Results and Discussion

This is an assessment of One Health coordination across WOAHA Members of the Regional Commission of the Middle East as informed by the three pathways of change of the One Health JPA. A more detailed evaluation is available.

Survey Findings

Detailed assessment of One Health coordination across WOAHA Members of the region as informed by the three pathways of change of the One Health JPA

Pathway 1: Governance, policy, legislation, financing, and advocacy

Domain 1.1: Governance and Leadership

This Domain had one question as below,

1.1.1. Is there a designated One Health coordinating body or mechanism in place?

In the domain of Governance and Leadership, Members participating in the One Health Joint Plan of Action have shown a commitment to establishing and strengthening One Health coordinating bodies or mechanisms. These bodies play a crucial role in promoting a unified approach to address health challenges that affect humans, animals, and the environment, facilitating joint planning and implementation and sharing of resources. The presence of one health coordinating body or mechanism at different levels in Members is as below and given in **Figure 4**. This comprehensive overview of One Health coordinating bodies demonstrates the diverse approaches taken by Members to ensure effective governance and leadership in addressing complex health challenges. It is noted that nine Members are in the process of establishing One Health coordinating bodies.

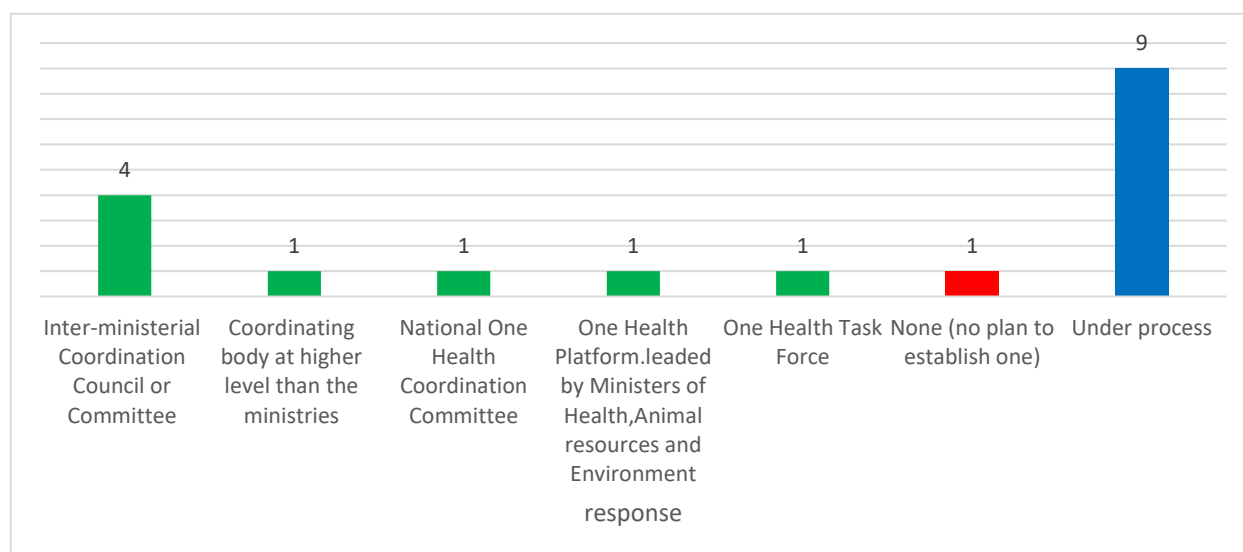


Figure 4. Presence of One Health coordinating body or mechanism and its level

Domain 1.2: Coordination for OH Policy and legal framework (legislation) development

This domain had two questions; the first question was as under:

1.2.1. Is there an active effort to coordinate policy and legal framework development between sectors?

In response to this question, **Figure 5** shows that most Members, accounting for 89%, have indicated that there is an active effort to coordinate policy and legal framework development between sectors in the context of One Health, emphasizing collaboration and coordination across different sectors to address complex health challenges. This collective effort demonstrates a commitment to the One Health approach and its importance in tackling health issues that transcend traditional boundaries.

Members within the One Health Joint Plan of Action are actively engaged in various types of coordination to advance the development of policy and legal frameworks that promote One Health integration as demonstrated in **Figure 6**. These efforts demonstrate the commitment of Members to advance One Health integration by developing and advocating for policies and legal frameworks that address the interconnectedness of health across sectors. It is noted that Two Members have undertaken the important step of conducting a national stakeholder mapping and analysis exercise. This exercise helps identify all relevant stakeholders involved in One Health strategies and policies, ensuring a comprehensive approach to collaboration.

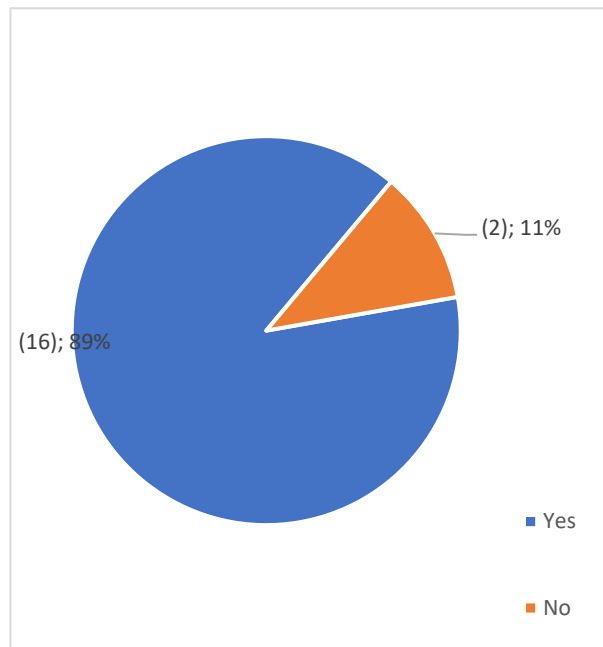


Figure 5: Coordination for One Health policy and legal framework development between sectors.



Figure 6. Types of coordination for One Health policy and legal framework development between sectors (among 16 Members).

The second question under this domain was:

1.2.2. Is there high-level political support and engagement for One Health initiatives?

Based on the responses provided, **Figure 7** shows that a significant majority of Members, constituting 78%, have affirmed that there is high-level political support and engagement for One Health initiatives within their respective Members, suggesting that a substantial portion of Members recognizes the importance of political backing for addressing health challenges that span human, animal, and environmental health domains. The presence of strong political support and engagement is crucial for the successful implementation of One Health initiatives, as it often involves collaboration across multiple government sectors and agencies. While its absence may highlight the need for advocacy and awareness-building.

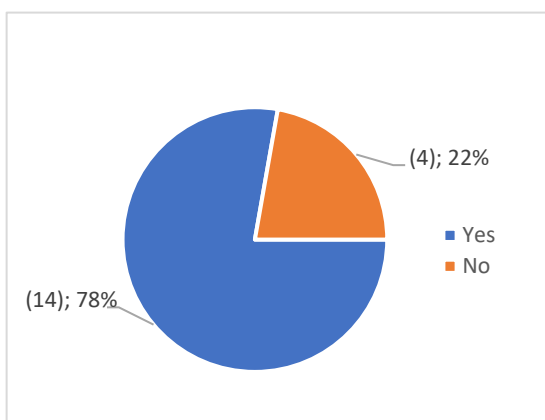


Figure 7. Presence of high – level political support and engagement for One health initiatives.

Among these Members having *high-level political support and engagement for one health initiatives*, the *different* levels of political support and engagement have been calculated through different response options and are discussed and given below in **Figure 8**. These efforts reflect the diverse approaches and commitment levels to advancing the One Health agenda across Members.

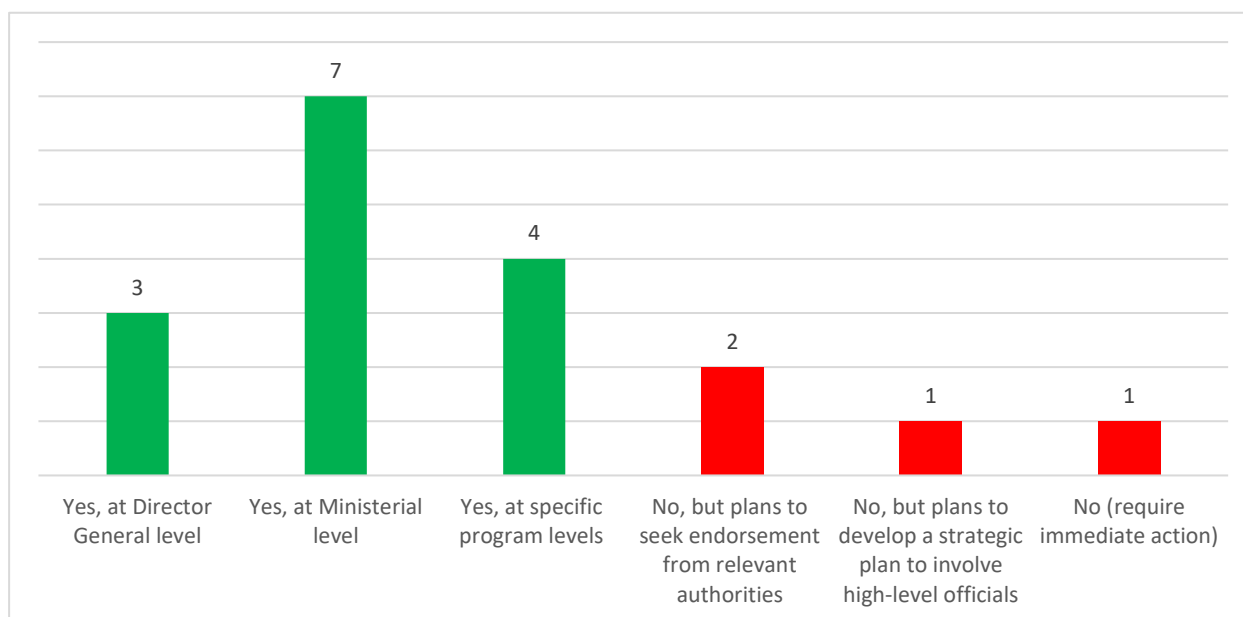


Figure 8. Different levels of political support and engagement for One health initiatives.

It is noted that seven Members have shown significant political support and engagement for One Health initiatives at the Ministerial level. This demonstrates a commitment to One Health principles at the highest levels of government.

Moreover, four Members have endorsed One Health initiatives at specific program levels. While not at the highest political level, these endorsements demonstrate a commitment to integrating One Health into specific programs and policies.

In summary, Members have adopted varying levels of political support and engagement for One Health initiatives, ranging from Director General and Ministerial levels to specific program endorsements. Some Members have clear plans to seek higher-level endorsements or develop strategic plans to involve high-ranking officials, while others require immediate action to address the absence of political support. These efforts reflect the diverse approaches and commitment levels to advancing the One Health agenda across Members.

Domain 1.3: Funding and resource allocation for One Health Multisector Coordination in Country:

This domain had two questions; the first question was as under:

1.3.1. *Is there dedicated funding allocated for One Health multisector coordination activities?*

Among the Members surveyed, 22% have dedicated funding allocated for One Health multisector coordination activities, while 78% do not currently have dedicated funding in place **Figure 9**.

Overall, while a portion of Members have already secured dedicated funding for One Health coordination, many are actively planning to advocate for increased national funds, seek international support, develop grant proposals, or establish dedicated funds to sustain and enhance their multisector coordination efforts **Figure 10**. These funding strategies demonstrate the commitment of Members to advance the principles of One Health and address health challenges that transcend sectors.

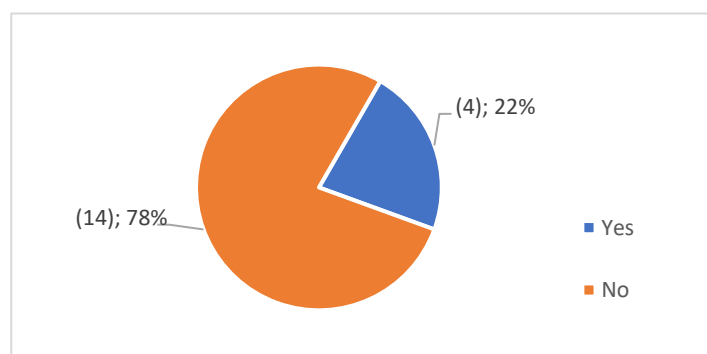
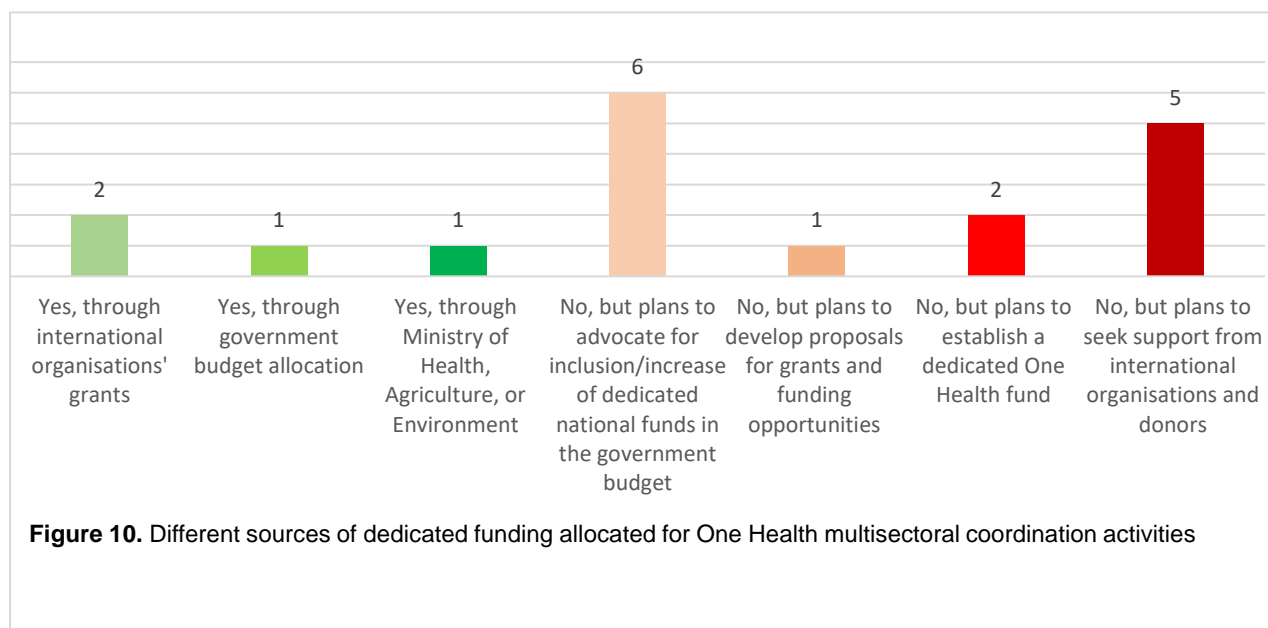


Figure 9. Dedicated funding allocated for One Health multisector coordination activities.

Only 1 Member, has allocated dedicated funding for One Health multisector coordination activities through its government's budget, while six Members, have expressed plans to advocate for the inclusion or increase of dedicated national funds in the government budget. Additionally, they aim to strengthen their funding proposals to secure government support. Moreover, five Members have plans to seek support from international organizations and donors to advance their One Health coordination activities.



The second question in this domain was:

1.3.2. Is there a coordinated mechanism for resource allocation for multisector activities?

Figure 11 shows that a significant majority of Members, constituting 83%, do not currently have a coordinated mechanism in place for resource allocation for multisector activities. The different coordinated mechanisms for resource allocation in different Members are shown in **Figure 12**

Having a coordinated mechanism for resource allocation is crucial for effectively managing and distributing resources across various sectors involved in One Health initiatives. The fact that many Members do not have such a mechanism may indicate a need for further development and coordination efforts in this area to ensure the efficient allocation of resources for multisector activities related to One Health.

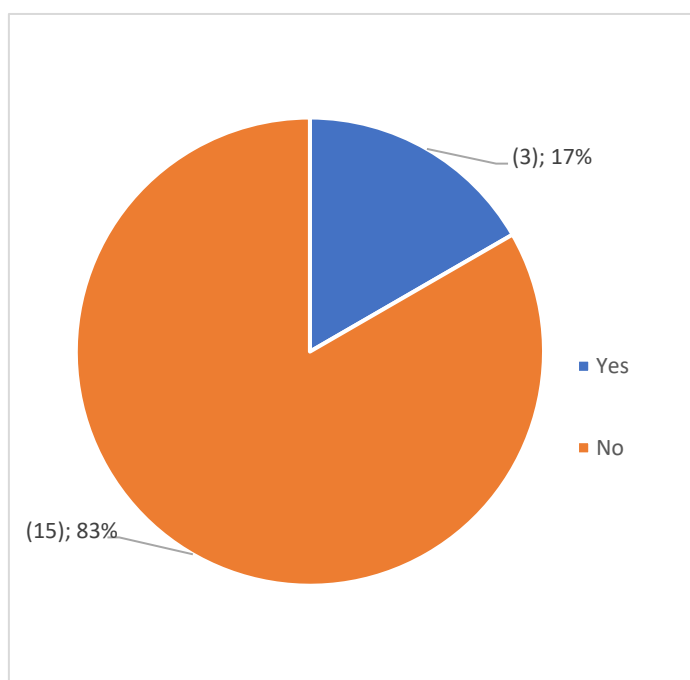


Figure 11. Presence of coordinated mechanism for resource allocation for multisectoral activities.

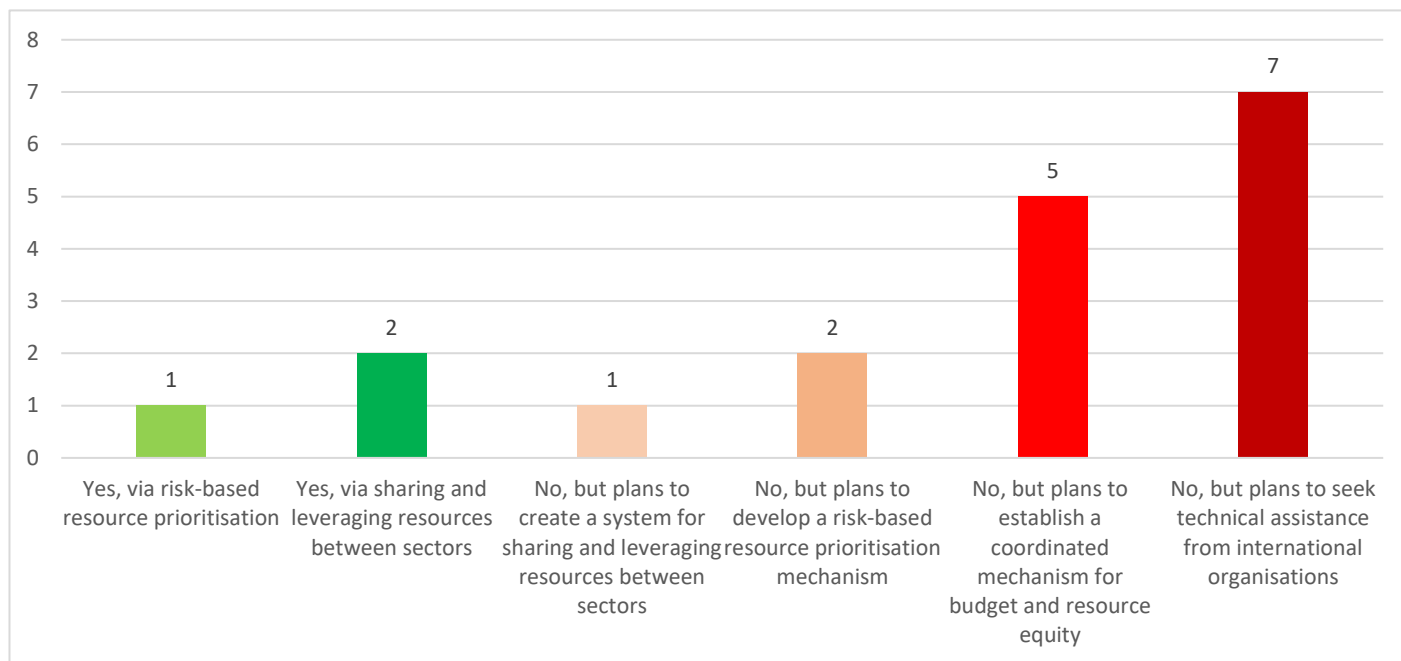


Figure 12. Presence of a coordinated mechanism for resource allocation for multisectoral activities.

Five Members have expressed plans to establish a coordinated mechanism for budget and resource equity among sectors. This initiative aims to ensure fairness and equity in resource allocation.

Seven Members, plan to seek technical assistance from international organizations. This collaborative approach aims to leverage external expertise to develop a coordinated mechanism for resource allocation.

The responses provided indicate that while a few Members have already established coordinated mechanisms for resource allocation, the majority are actively planning and working toward the development of such mechanisms. These efforts underscore the importance of optimizing resource allocation to support multisector activities in the context of One Health.

Domain 1.4: Sub-regional, Regional and Global Cooperation

This fourth domain of pathway one had just one question as below.

1.4.1. Does the country recognize the importance of sub-regional, regional, and global cooperation to address health challenges that transcend borders?

Figure 13 reveals a highly encouraging observation, in which 94% of Members have recognized the importance of sub-regional, regional, and global cooperation to address health challenges that transcend borders. This strong consensus among Members underscores the recognition that global health challenges require collaborative efforts that extend beyond national boundaries.

While the remaining 6% of Members have responded with a "No," it is important to acknowledge that each country's circumstances and priorities may vary. However, the overwhelmingly positive response from most Members highlights the shared commitment to international cooperation in tackling health issues that affect populations across the world. This recognition is a significant step toward addressing global health challenges effectively. The different level of active cooperation to address emerging pandemics and health threats are discussed in **Figure 14**

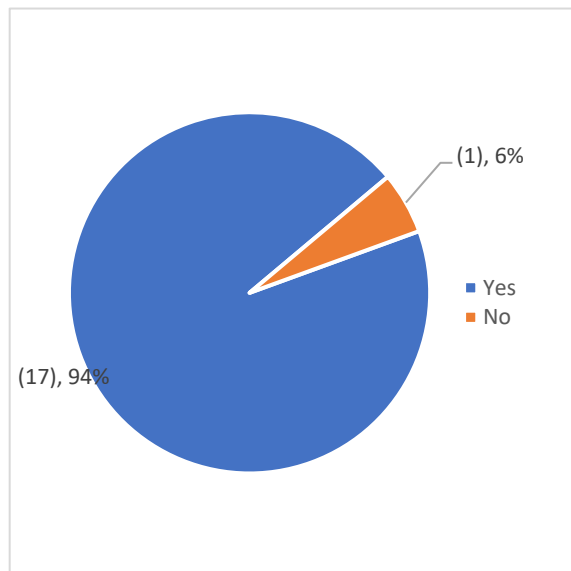


Figure 13: Recognizing the importance of cooperation to address health challenges that transcends borders.

Majority of Members actively engage in global cooperation with international organizations. This signifies their commitment to collaborating on a global scale to address emerging pandemics and health threats.

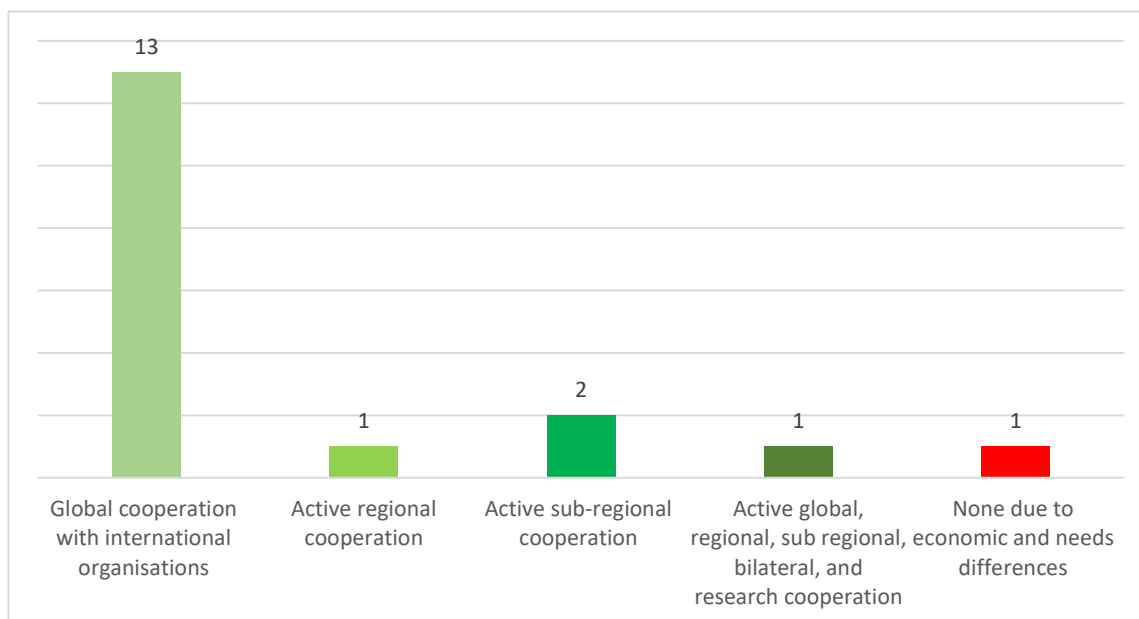


Figure 14. Different levels of active cooperation to address emerging pandemics and health threats.

Pathway 2: Organizational & institutional development, implementation, and sectoral integration

Domain 2.1: Environmental Health

This domain included one questions as follows:

2.1.1. *Is there a coordination mechanism for the integration of environmental health into animal and human health policies and programs?*

This domain underscores the importance of a coordinated and holistic approach to health and explores the presence of a comprehensive approach to health that recognizes the intricate connections between the environment, animal health, and human health. With the majority of Members (**61%**) declaring having a coordination mechanism for integrating environmental health considerations into policies and programs, Members aim to achieve several important objectives, including, but not limited to, disease prevention, public health protection, sustainable agricultural and food safety and climate change mitigation.

Figure 15 demonstrates the diverse mechanisms and strategies that Members are using or considering for integrating environmental health into their broader health policies and programs, with few Members have established mechanisms for **Animal-Human-Environment Risk Assessment** or **Cross-Sectoral Health Committees**, which are inter-agency or inter-ministerial groups that bring together stakeholders from various sectors, including health, environment, agriculture to collaborate in addressing health-related issues that require a multi-sectoral approach.

Notably, **none** of the Members declared plans to conduct **workshops** specifically focused on **building capacity** in understanding and addressing the connections between health and the environment.

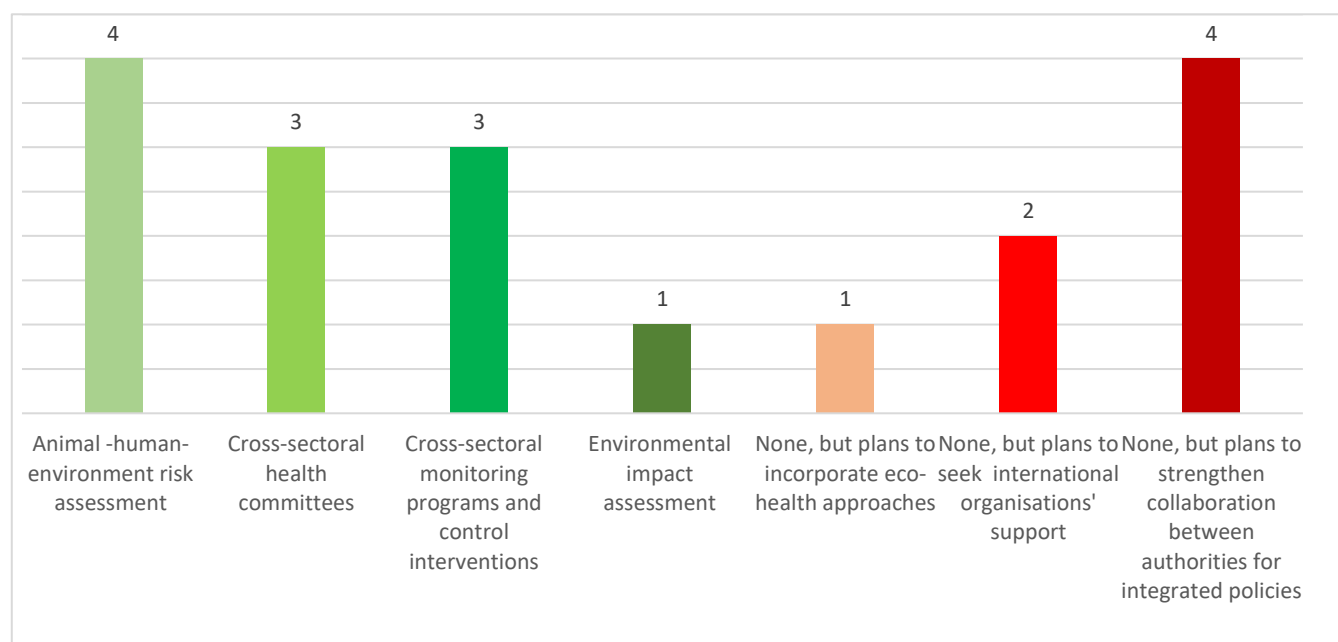


Figure 15. Mechanism of integrating environmental health into animal and human health policies and programs.

Domain 2.2: Collaboration on Capacity Building and Training

This domain included one question as follows.

2.2.1. Is there a focus on strengthening the capacity of healthcare professionals, veterinarians, environmentalists, and other stakeholders to collaborate effectively for One Health initiatives?

This domain highlights the importance of enhancing the skills, knowledge, and collaborative abilities of various professionals and stakeholders from diverse fields to work together effectively on One Health initiatives. Notably, 83% of the Members declared undertaking a mechanism for collaboration on One Health capacity building and training, while others stated having plans to initiate such commitments. This is demonstrated in **Figure 16**.

While some Members do not currently implement a mechanism for capacity building and collaboration, they declared plans **to Establish Joint Training Committee** or **Design and Implement Training Programs**, notably, none of the Members indicated immediate plans for organizing workshops and seminars, cross-sectoral capacity-building initiatives, establishing partnerships with educational institutions, technical assistance from international organizations, or seeking funding support for their capacity building efforts. Such gaps could indicate areas for future development, collaboration, and expansion of One Health capacity building initiatives in the long-term.

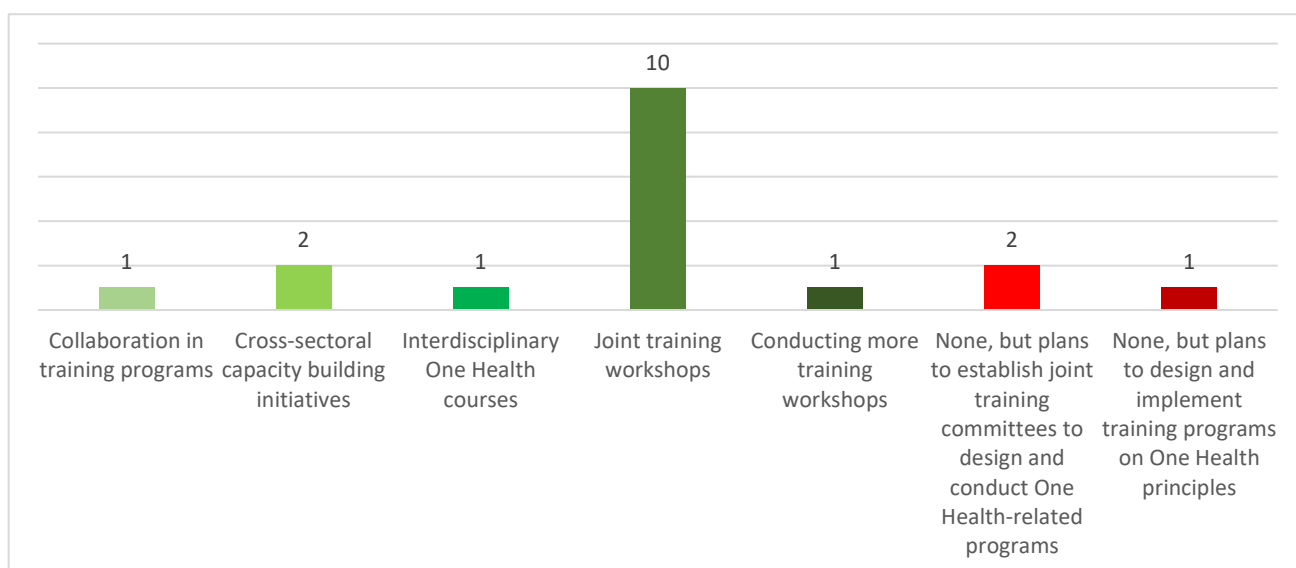


Figure 16. Mechanism of collaboration towards strengthening One Health capacity.

Domain 2.3: Coordination on Risk Communication and Community Engagement (RCCE) activities

This domain includes only one question as follows.

2.3.1. Are there coordinated efforts to enhance risk communication and raise public awareness about One Health?

This domain underscores the importance of a coordinated approach to plan, execute, and manage a wide range of actions and strategies aimed at effectively communicating health risks and engaging communities in public health initiatives related to the One Health concept. Of the 18 Members, **61%** indicated undertaking various mechanisms to enhance risk communication and raise public awareness about One Health, as demonstrated in **Figure 17**.

Notably, none of these Members indicated plans to enhance their efforts, enhance their efforts, engage in joint advocacy efforts directed towards policymakers, or establish joint health education programs for healthcare professionals (HCP) and the general public.

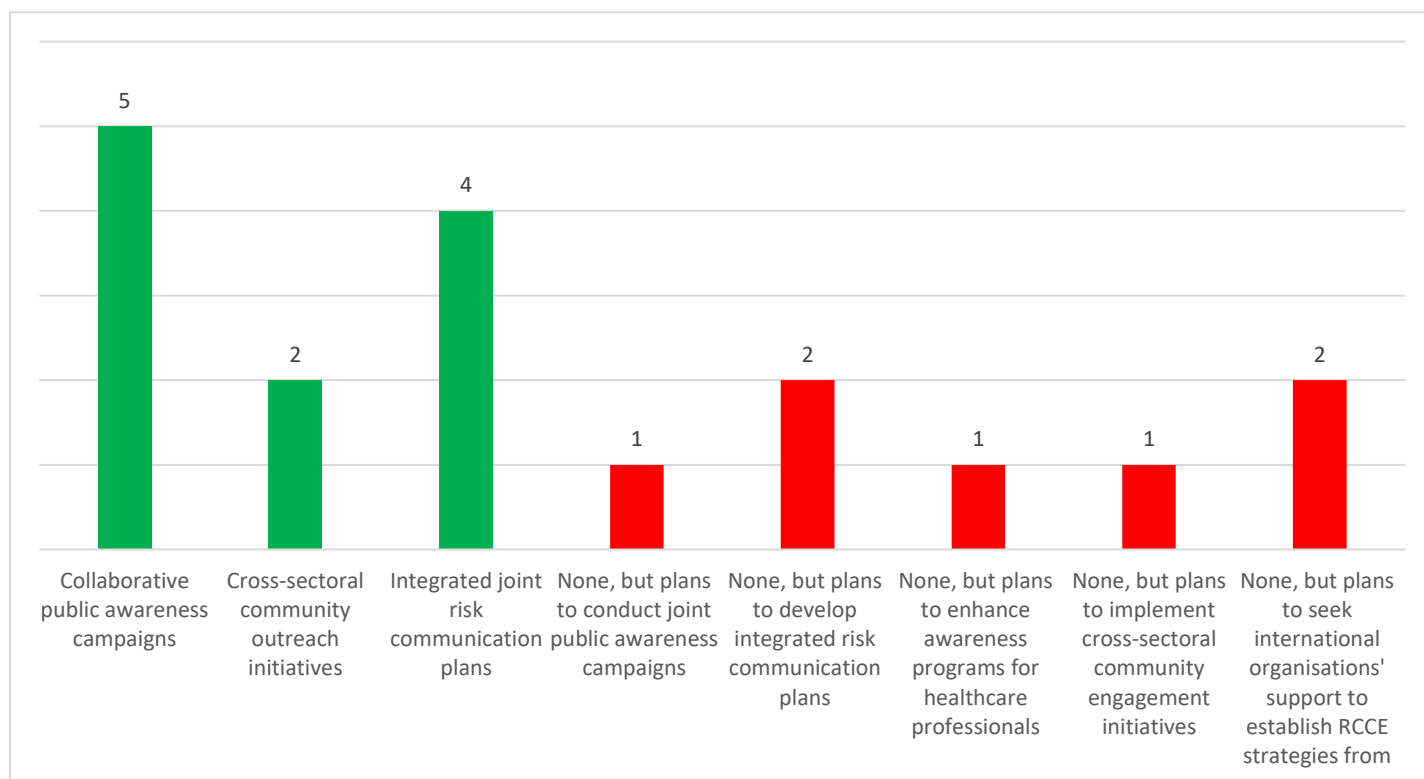


Figure 17. Mechanisms to enhance risk communication and raise public awareness about One Health

Domain 2.4: Specific programs coordination in planning and implementation.

This domain entails four areas of focus: 1) Zoonotic Diseases 2) Vector-Borne Diseases, 2) Antimicrobial Resistance and 4) Food safety.

2.4.1. Please select the topics and the appropriate options from the list below to indicate the areas where the country has a sustainable coordination mechanism between animal, human and environment health sectors in planning and implementation

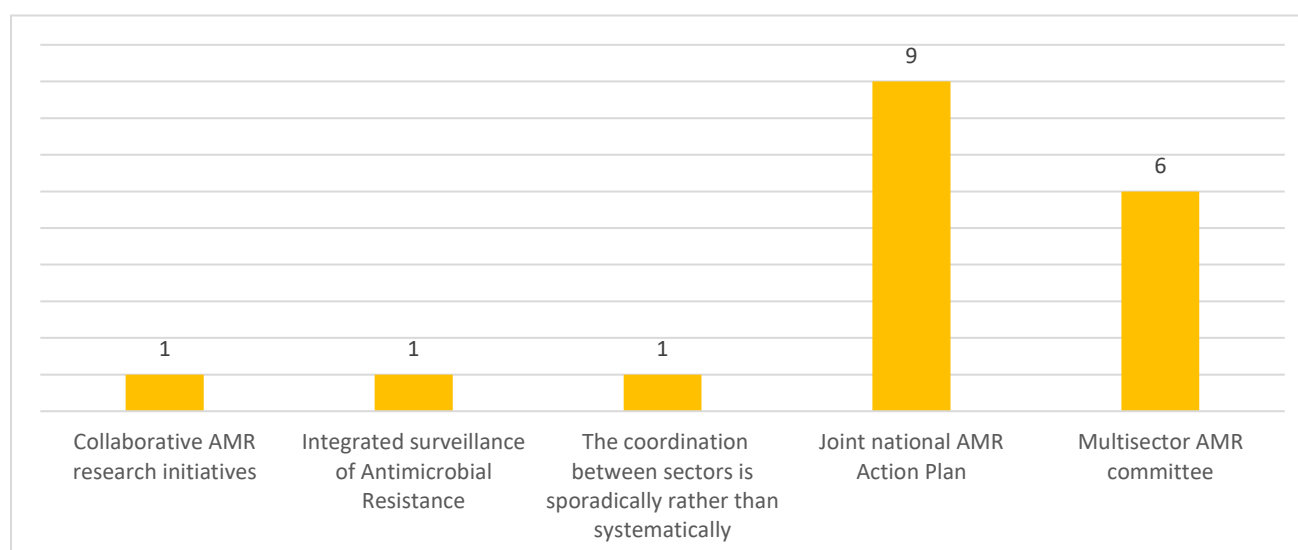
This domain highlights the importance of the development and execution of specific programs that are dedicated to enhancing coordination and collaboration between the animal, human, and environmental health sectors, and aim to address health challenges in a comprehensive and holistic manner towards more effective and resilient health systems.

The WOAHA Members have taken proactive steps to establish sustainable coordination mechanisms to address aspects of zoonotic diseases and less so for vector-borne diseases (**Table 1**). This includes planning and implementing strategies to prevent, prepare for, and respond to diseases transmitted by vectors and animals, with a focus on collaborative efforts across animal, human, and environmental health sectors. Such coordination is vital for effective zoonotic and vector-borne prevention and disease control and public health protection. It is of note that only around a third of the Members **timely report disease outbreaks and events for both zoonoses and vector borne diseases.**

Table 1. Areas in zoonotic and vector borne diseases that have a sustainable coordination mechanism across the animal, human, and environmental health sectors.

Areas	Zoonotic diseases prevention, preparedness and response		Vector borne diseases prevention, preparedness and response	
	Number of Members	Percent of Members	Number of Members	Percent of Members
Coordinated surveillance and investigation	4	22%	3	17%
Cross-sectoral zoonotic and vector borne disease control programs	2	11%	1	6%
Establish a joint Zoonotic and Vector borne disease response team	5	28%	4	22%
Multisectoral emergency plans, exercises, and drills	3	17%	2	11%
The coordination between animal and human in planning and implementation is sporadically rather than systematically	1	6%	1	6%
Timely reporting of disease outbreaks and events	7	39%	6	33%
Integrated Vaccination Campaigns	1	6%	0	null

Meanwhile, although not all areas related to AMR have been equally addressed in these Members (**Figure 18**), some have demonstrated notable efforts in establishing sustainable coordination mechanisms for AMR research, surveillance, action plans, and multisector committees. These efforts reflect a commitment to addressing the global challenge of AMR, which requires a coordinated approach across various sectors and stakeholders. Of note that half of the Members in the region have developed joint national AMR action plans and five Members have established multisector AMR committees.

**Figure 18.** Areas in AMR that have a sustainable coordination mechanism across sectors.

Regarding **food safety**, sustainable coordination mechanisms across various areas have been declared (**Figure 19**). However, none of the Members indicated having sustainable mechanisms for collaborative foodborne outbreak investigation, cross-sectoral water safety committees, integrated water quality monitoring and control, nor collaborative waterborne disease surveillance, potentially indicating:

- Members may be less prepared to respond effectively to foodborne disease outbreaks.
- Shortcomings in ensuring safe and clean water for consumption leading to increased risk of waterborne diseases and environmental contamination.
- Data gaps exist related to the prevalence and spread of waterborne diseases.
- There are missed opportunities for cross-sectoral collaboration to address complex public health challenges.
- Potential resource inefficiencies as different sectors may duplicate efforts or fail to allocate resources optimally.
- Negative environmental consequences, such as pollution of water sources and ecosystems
- Inconsistencies and gaps in regulatory frameworks due to varying standards and practices related to food safety and water quality.

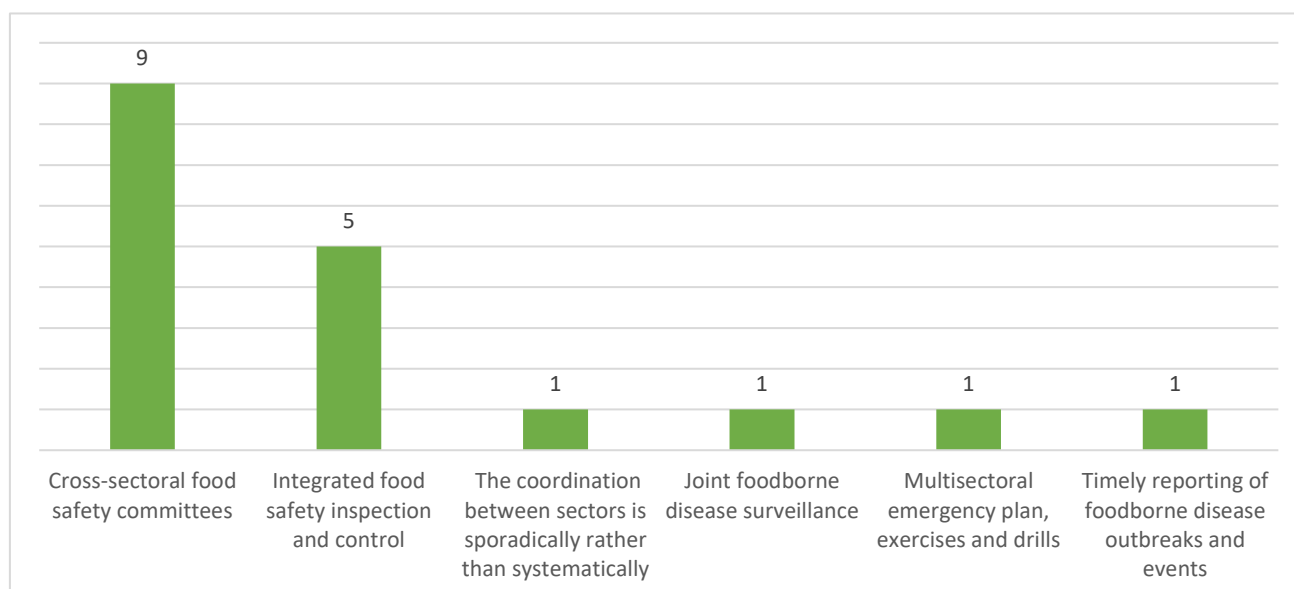


Figure 19. Areas in food safety that have a sustainable coordination mechanism.

Pathway 3. Data, evidence, information systems, and knowledge exchange

Pathway 3 encompasses 4 domains.

Domain 3.1: Communication and Information Sharing

This domain included one question as follows:

3.1.1. *Is there a sustainable and effective communication channel between different sectors involved in One Health?*

Communication and information sharing in the context of One Health involve the coordinated exchange of data, knowledge, and insights among human health, animal health, and environmental health sectors to address interconnected health challenges. Effective communication supports holistic understanding, early detection of threats, resource allocation, research, policy development, public awareness, and more. Notably, **67%** of the WOAHA Members who responded to this questionnaire declared existing sustainable and effective channels for facilitating the exchange of information and coordination among different sectors involved in One Health (**Figure 20**). On the other hand, while some Members have no current established channels, they declared having plans in place to promote effective communication and collaboration among the different sectors.

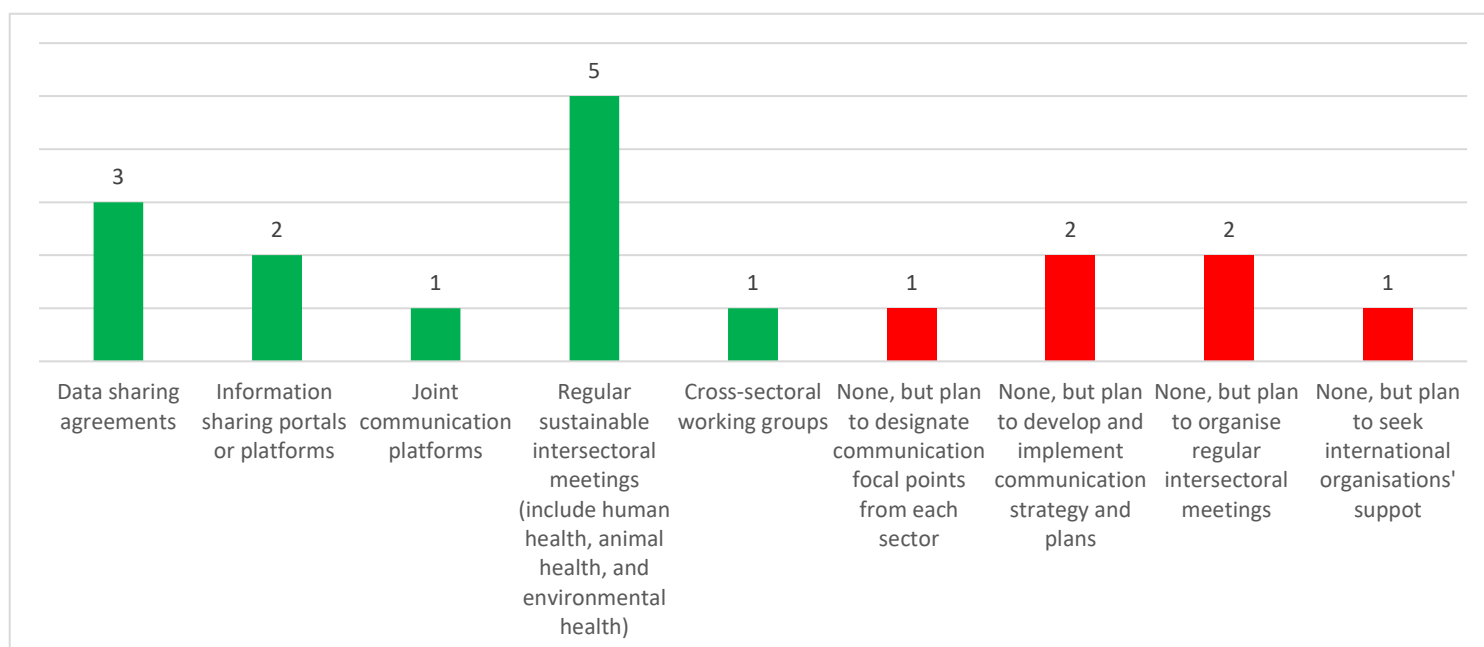


Figure 20. Types of sustainable communication and information sharing channels between different sectors of One Health.

Domain 3.2: Surveillance and Early Warning Systems Coordination

This domain included one question as follows:

3.2.1. *Are surveillance systems integrated and/or sustainably coordinated across human, animal, and environmental health sectors?*

This domain highlights the organized efforts to integrate and streamline surveillance systems across various sectors, such as human health, animal health, and environmental health, to monitor and detect health threats promptly. This coordination aims to enhance the ability to identify potential health risks early, assess their impact on both human and animal populations, and respond effectively to mitigate their spread and impact.

Notably, some Members responded positively to this domain (**Figure 21**). However, it is important to highlight that the majority of Members (**56%**) declared having **NO** integrated or sustained surveillance system in place at the time of completing this survey. Additionally, two major systems were not reported to be undertaken by any of the Members, those are cross-sectoral laboratory coordination, information sharing, and joint environmental health surveillance. However, 3 Members declared commitment to establish mechanisms for **joint surveillance and reporting**, whereas 5 Members plan to strengthen collaboration between relevant authorities to improve surveillance and response efforts, fostering a more integrated and coordinated approach.

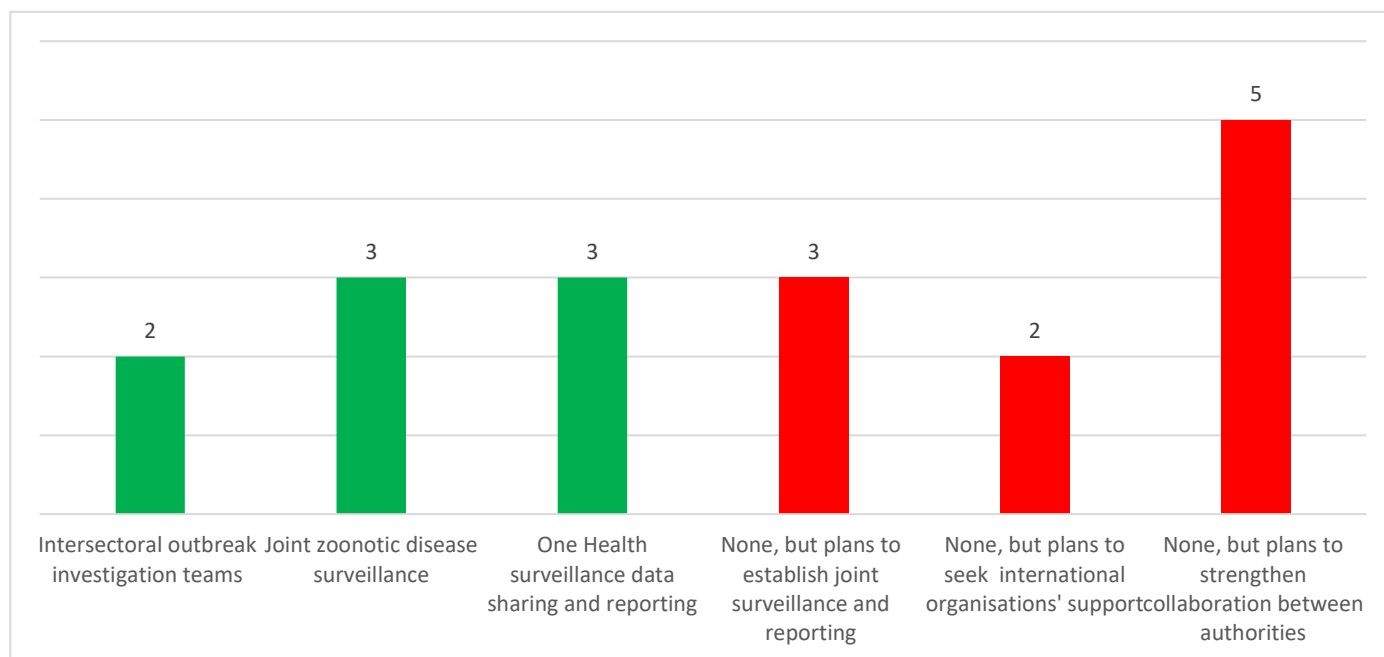


Figure 21. Mechanisms for integrated surveillance systems across the different sectors of One Health.

Domain 3.3: Research collaboration, innovation, knowledge sharing and expertise exchange.

This domain included one question as follows:

3.3.1. Is there ongoing coordinated research on One Health?

This domain encompasses a wide range of activities aimed at fostering collaboration among different sectors and organizations to advance research and knowledge in the field of One Health. While the importance of such collaboration is widely recognized, it is noteworthy that a substantial portion of Members, specifically 72%, reported having no ongoing coordinated research on One Health (**Figure 22**). Nevertheless, the ones actively involved in this domain contribute to the advancement of One Health through collaborative research, innovation, and knowledge sharing. These efforts are vital for addressing complex health challenges, enhancing global health security, and improving public health outcomes.

However, several crucial mechanisms, such as established One Health research institutes, joint research committee, integrated knowledge and community of practice platforms, and joint One Health conferences have not been reported by any of the Members. The same is true for the following areas: assessment of intersectoral collaboration for One Health, evaluation of the impact of One Health initiatives on public health outcomes, studies on integrated surveillance systems and early warning mechanisms, and research on the socio-economic benefits of One Health approaches.

On the other hand, some Members reported ambitious plans to initiate research studies to evaluate the effectiveness of One Health coordination efforts (four Members), identify national scientific research priorities and allocate resources and expertise (one Member), and seek support from international organizations (7 Members), indicating their commitment to adopting evidence-based approaches, advancing One Health research, and enhance their research capacities and initiatives related to One Health, respectively.

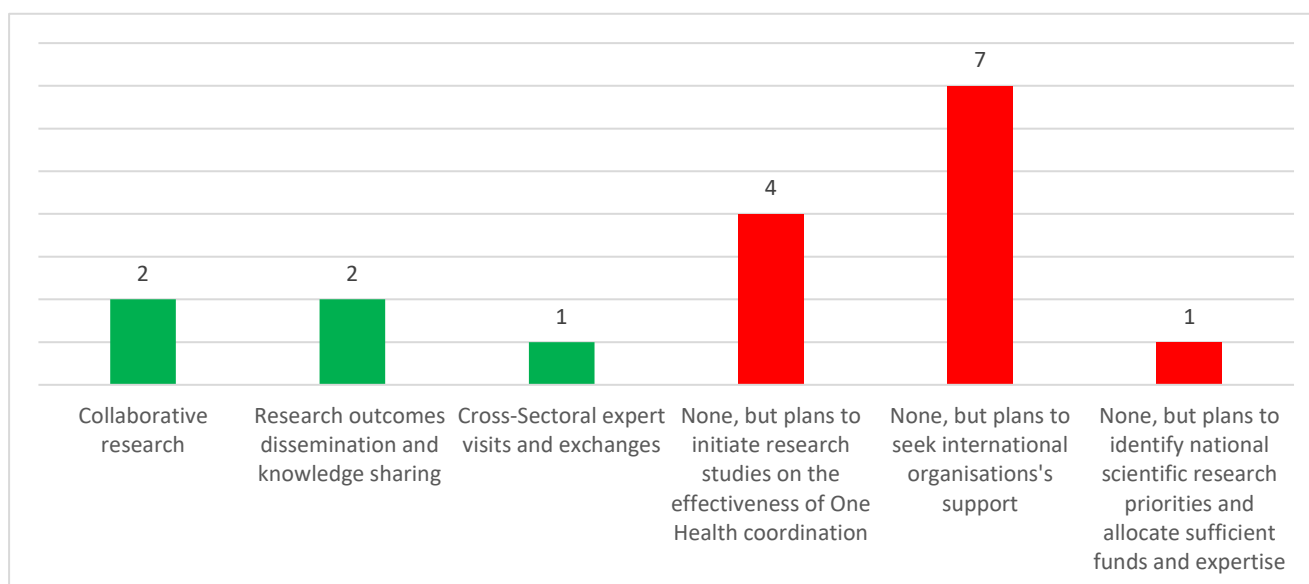


Figure 22. Mechanisms of coordinated research on One Health

Domain 3.4: Coordinated Monitoring and Evaluation Mechanism for One Health

This domain included one question as follows:

3.4.1. Is there a system in place to sustainably monitor and evaluate the effectiveness of One Health multisector activities implementation and coordination and identify the needs?

This domain refers to the structured processes and mechanisms put in place to systematically assess and measure the outcomes and impact of One Health initiatives, identify areas for enhancement, and demonstrate the value of collaborative efforts in safeguarding public health, animal health, and the environment.

Notably, despite the recognized importance of sustaining coordinated monitoring and evaluation of the effectiveness of One Health multisector activities, the majority of Members (89%) reported not having a system in place (Figure 23). Thus underscores the need for greater attention to this critical aspect of multisectoral health initiatives. Developing and implementing robust M&E systems should be a priority for Members and organizations committed to advancing the One Health approach. Notably, only Syria and Sudan reported having cross-sectoral performance indicators to help assess the impact of coordinated efforts across

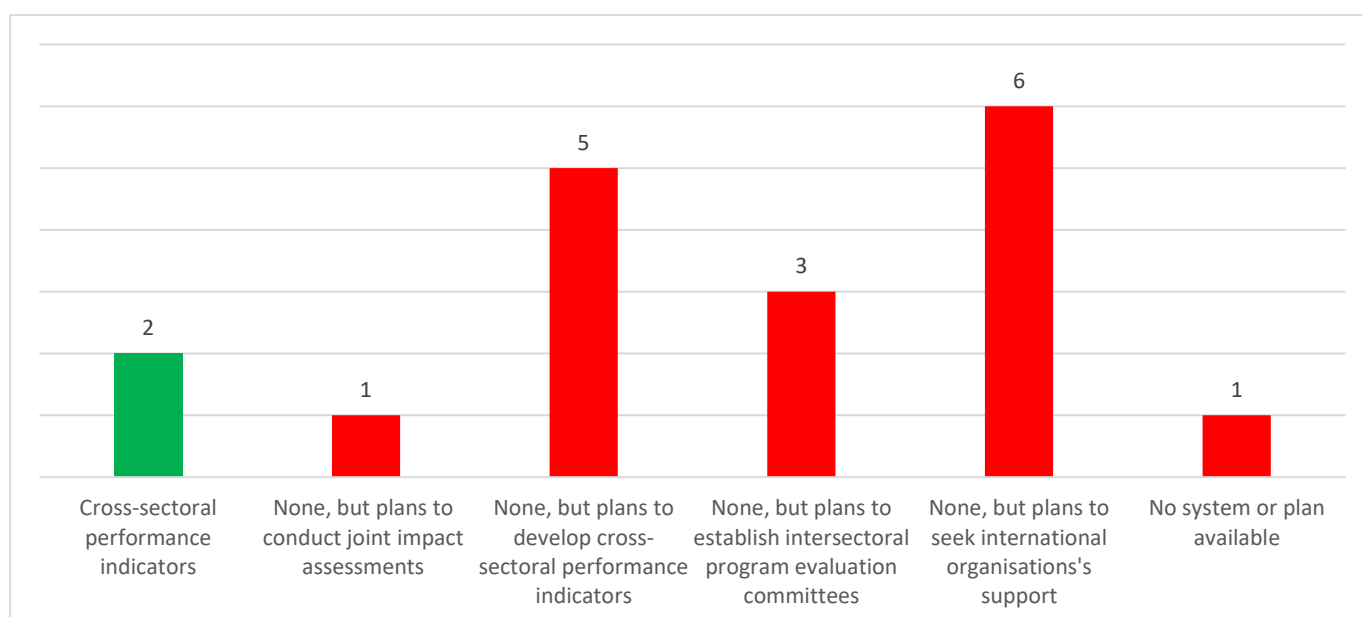


Figure 23. M&E systems on effectiveness of One Health multisectoral activities across WOHM Members

An overall assessment of the progress on One Health coordination across the three pathways of changes in the 18 reporting WOHM Members is demonstrated in the Annex.

Challenges, key achievements and success factors, and need for technical support on One Health coordination.

A. Challenges for One Health Multisector Coordination

Several challenges were reported by Members in relation to implementing One Health multisector coordination mechanism in the country (**Figure 24**). Such challenges underscore the necessity for a multifaceted approach, which could include raising awareness and providing clear guidance on the principles and benefits of One Health, enhancing data-sharing protocols and systems among sectors, implementing integrated surveillance systems, fostering effective communication with the public and community engagement, garnering political commitment and leadership to drive multisectoral coordination efforts, and aligning priorities for the collective identification and addressing of key actions.

It is also important to note that each Member may face a unique combination of obstacles, and addressing these challenges requires tailored strategies and collaborative efforts at the national and international levels.

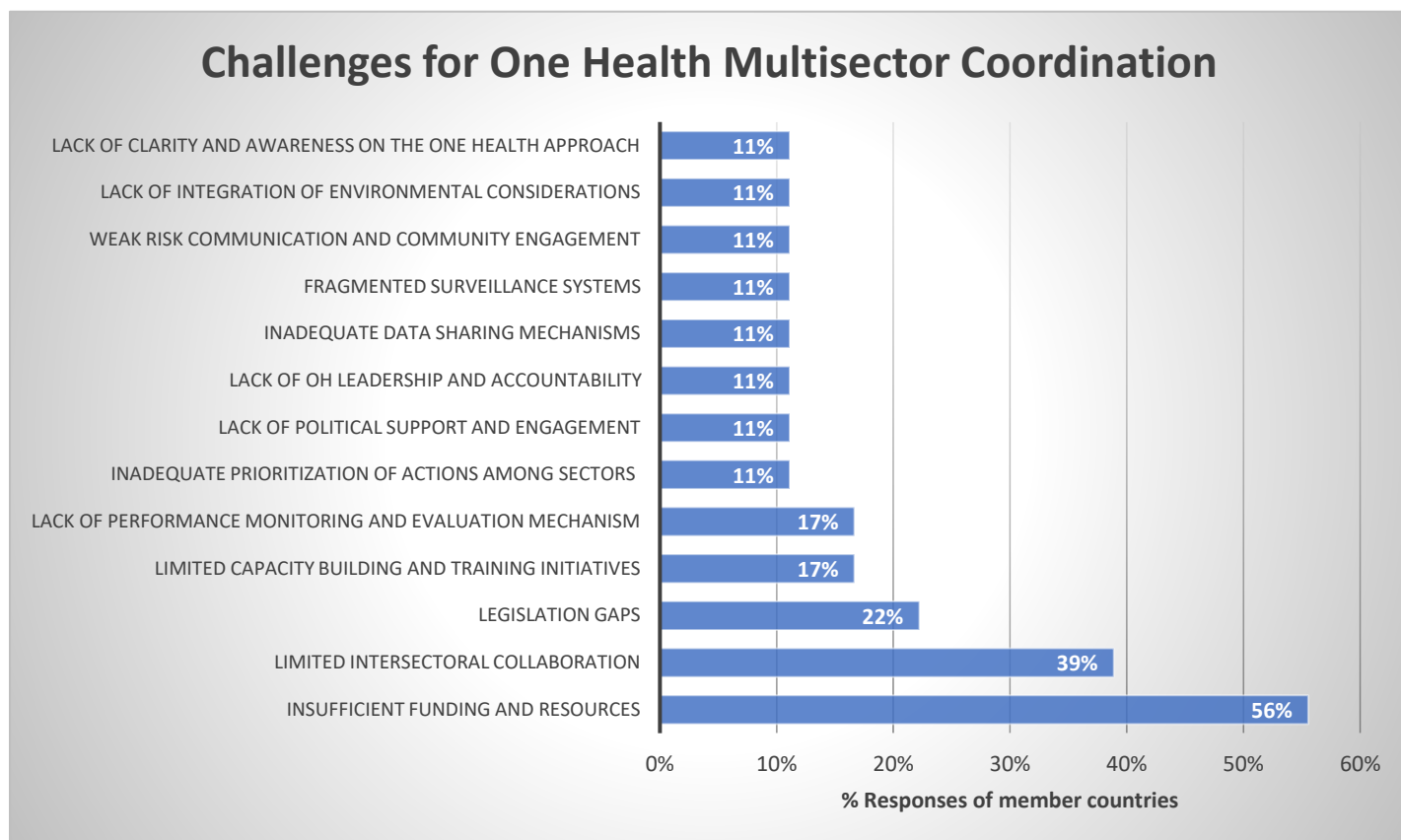


Figure 24. Challenges for One Health Multisector Coordination according to responses from Members.

B. Key achievements and key success factors

Key achievements and success factors on One Health coordination have been identified across the WOAHA Members (**Figure 25**). A categorization method has been used to provide a structured view of the key achievements accomplished due to One Health coordination in WOAHA Members alongside the corresponding success factors via organizing them into thematic groups. The identified categories emphasize the importance of coordinated efforts at both the national and international levels. Details on the reported key achievements and success factors distributed across the identified categories are available.

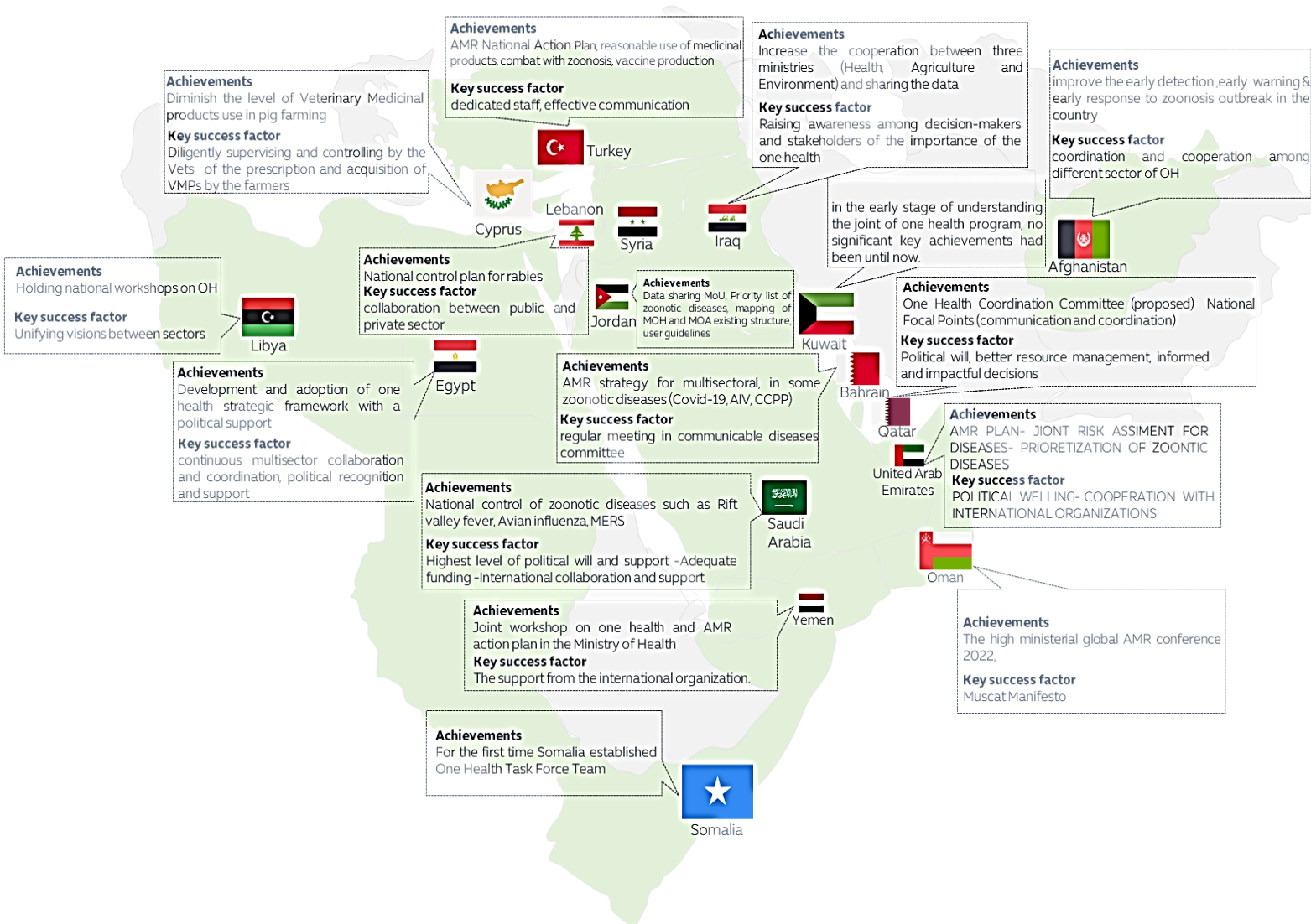


Figure 25. Key achievements and success factors of One Health Coordination

C. International technical Support

Since the release of the global quadripartite OH Joint Plan of Action, the quadripartite organizations continue their active efforts to ensure efficient implementation at all levels. To this end, it is necessary to identify areas where international technical support is required to better direct capacity building resources. Therefore, in the current analysis, Members were requested to select specific action items outlined in the global Quadripartite OH Joint Plan of Action to indicate whether international support is necessary, or actions can be accomplished by the country without the need for external technical support. The responses from Members reveal that technical support from the quadripartite is needed in all action items, with some variations observed between action items as illustrated in Figure 26.

In general, the highest demand for international technical support was observed in two key areas addressing the silent pandemic of AMR and integrating the environment into one health with 65% and 64% responses, respectively. To facilitate efficient international technical support tailored to specific needs, each of these action tracks was further assessed, and described as per each action track. Interestingly, the assessment shows that 12 Members out of the total 18, require international support for more than 50% of the activities. These key findings will enable focused and informed international support.

Overall, six Members highlighted the need for international support in more than 11 actions listed in the OH JPA. A total of 7 Members selected between 5 to 10 actions as their priority areas for international support. Four Members, on the other hand, identified a maximum of 5 priority actions. It is noteworthy that one Member expressed uncertainty concerning 10 actions. In total, there was uncertainty among Members on 40 actions from different action tracks. This uncertainty may signal a need for improved awareness and communication strategies for the OH JPA or a lack of baseline data that would enable Members to make informed decisions about priority actions.

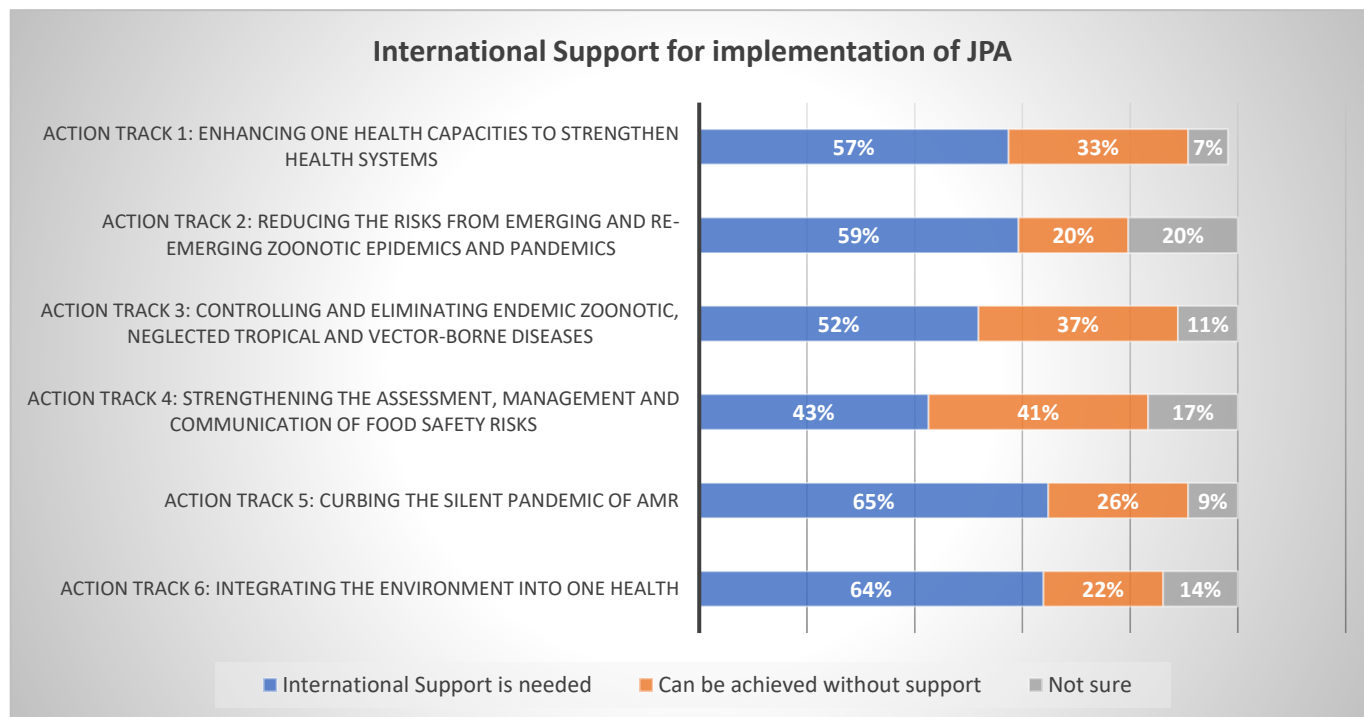


Figure 26. International support for implementation of the One Health Joint Plan of Action (JPA)

Conclusions

Below are 13 key conclusions that aim to strengthen One Health coordination efforts across Members of WOA Regional Commission for the Middle East as per the findings discussed in the current report:

Pathway 1

Policy,
legislation,
advocacy, and
financing

1. Members should prioritize allocating sufficient funding and resources to support One Health coordination activities. Adequate financial support is crucial for the successful implementation of multisectoral initiatives.
2. Address legislative gaps to ensure that there is a solid legal foundation for One Health coordination. Developing and enacting policies and legislation that promote intersectoral collaboration and information sharing is essential.
3. Recognize the importance of global cooperation in addressing health challenges that transcend borders. Collaboration with sub-regional, regional, and global partners can enhance the effectiveness of One Health initiatives.
4. Promote awareness of the One Health approach among policymakers, healthcare leaders, and the public. Leadership commitment and engagement at all levels are critical for driving multisectoral coordination efforts.

Pathway 2

Organisational
development,
implementation,
and sectoral
integration

5. Establish comprehensive and coordinated monitoring and evaluation mechanisms to assess the impact of One Health initiatives effectively.
6. Encourage and facilitate collaboration between human health, animal health, and environmental health sectors. Inter-ministerial cooperation and data sharing are essential components of successful One Health coordination.
7. Members should invest in capacity building and training initiatives to enhance the skills and knowledge of veterinarians, healthcare professionals, environmentalists, and other stakeholders involved in One Health initiatives.
8. Improve Risk Communication and community engagement strategies to enhance public awareness and engagement in One Health issues. Effective communication with the public is crucial for preventing and responding to health threats.
9. Ensure risk-based prioritization of actions highlighted in the OH JPA and improve awareness and communication strategies for effective implementation.

Pathway 3

Data, evidence,
and knowledge

10. Continue efforts to integrate environmental health considerations into animal and human health policies and programs. Recognizing the interconnectedness of these
11. Promote collaborative research, innovation, knowledge sharing, and expertise exchange. Coordinated research efforts can lead to better understanding and solutions for complex health challenges.
12. Ensure the sustainability of communication and information sharing channels between sectors. These channels are vital for sharing data and facilitating coordination.
13. Encourage harmonized sub-regional and regional collaborations for providing technical support, knowledge and expertise sharing.

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Annex A. Overall assessment of OH coordination across the three pathways of change

Pathway 1: Governance, Policy, Legislation, Financing, and Advocacy

Members have made moderate progress (**44%**) in establishing a One Health-coordinating body, indicating some level of commitment to governance and leadership in the One Health approach. Meanwhile, substantial progress (**83%**) has been made in coordinating policy and legal framework development between sectors, highlighting efforts to align governance mechanisms. Members have made the most progress (**94%**) in recognizing the importance of cooperation to address health challenges that transcend borders, demonstrating a strong commitment to global collaboration. However, progress in funding and resource allocation (**19%**) is relatively low, indicating a need for increased financial commitment to support multisectoral coordination.

Pathway 2: Organizational & Institutional Development, Implementation, and Sectoral Integration

Considerable progress (**61%**) has been made integrating environmental health into animal and human health policies and programs, highlighting efforts to broaden the scope of One Health. Additionally, substantial progress (**83%**) has been made in focusing on strengthening the capacity of stakeholders to collaborate effectively for One Health initiatives, indicating a commitment to building expertise. Moreover, the moderate progress in risk communication and community engagement (**61%**) and establishing sustainable and effective communication and information sharing channels (**67%**) shows efforts to enhance public awareness and engagement and suggest improved information flow, respectively.

Only humble progress (**44%**) was seen in relation to surveillance and early warning systems coordination, indicating the need for strengthening efforts to integrate data-sharing mechanisms. Limited progress (**28%**) has also been demonstrated with regard to coordinated research and knowledge sharing in the One Health context, while the least progress (**11%**) reported was related to coordinated monitoring and evaluation mechanism for One Health.

Pathway 3: Data, Evidence, Information Systems, and Knowledge Exchange

Members have made significant progress (**67%**) in establishing sustainable and effective channels for communication and information sharing, indicating a strong commitment to improving the flow of information among sectors involved in One Health coordination. However, suboptimal progress (**44%**) was seen in coordinating surveillance systems across sectors, there is room for improvement in enhancing the sharing of surveillance data among different sectors.

Additionally, Members have made limited progress (**28%**) in coordinated research, innovation, knowledge sharing, and expertise exchange in the context of One Health, highlighting the need for more robust efforts in research collaboration. Finally, coordinated monitoring and evaluation mechanism for one health witnessed the lowest progress, indicating a significant gap in establishing a coordinated monitoring and evaluation mechanism. Developing comprehensive mechanisms for assessing the impact of One Health activities is essential for effective coordination.

Annex B. Country-based assessment of OH coordination across the three pathways of change and respective domains

Pathway 1: Governance, policy, legislation, financing, and advocacy

Domain 1.1: Governance and Leadership

Four Members have set up Inter-ministerial Coordination Councils or Committees. These high-level bodies bring together representatives from multiple ministries to coordinate One Health efforts, emphasizing the importance of cross-sector collaboration.

Just one Member has established a coordinating body at a higher level than the ministries. This structure ensures that One Health initiatives receive attention and support from senior government officials.

One Member has a National One Health Coordination Committee, signifying its commitment to coordinating efforts across the human, animal, and environmental health sectors.

Again, just one Member has adopted a comprehensive approach by establishing a One Health Platform led by Ministers of Health, Animal Resources, and Environment. This high-level platform highlights the importance of inter-ministerial cooperation.

Two Members have formed One Health Task Forces. These task forces likely work towards promoting collaboration and synergy among various stakeholders.

One Member does not currently have plans to establish a One Health coordinating body, indicating a different approach to addressing One Health challenges.

Whereas Nine Members are in the process of establishing One Health coordinating bodies, the ongoing efforts in these nine Members reflect their commitment to strengthening governance and leadership in the One Health context.

Domain 1.2: Coordination for OH Policy and legal framework (legislation) development

1.2.1. Is there an active effort to coordinate policy and legal framework development between sectors?

Two Members have undertaken the important step of conducting a national stakeholder mapping and analysis exercise. This exercise helps identify all relevant stakeholders involved in One Health strategies and policies, ensuring a comprehensive approach to collaboration.

Three Members are actively developing strategic plans for policy advocacy on One Health integration. These plans are essential for effectively advocating for the integration of One Health principles into national policies and regulations.

Six Members have made notable progress by developing policies that support collaboration between various ministries and stakeholders in the context of One Health. These policies lay the foundation for effective coordination and cooperation.

Three Members have taken the initiative to establish task forces dedicated to policy development and implementation for One Health coordination. These task forces are instrumental in driving forward the integration of One Health principles into national policies and legal frameworks.

Two Members recognize the importance of seeking technical support from international organizations to bolster their policy advocacy efforts in the One Health domain. Collaboration with international organizations can provide valuable expertise and resources.

1.2.2. Is there high-level political support and engagement for One Health initiatives?

Three Members have demonstrated a high level of political support and engagement for One Health initiatives, with endorsements coming from the Director General level. This signifies a strong commitment at the highest administrative ranks.

Seven Members have shown significant political support and engagement for One Health initiatives at the Ministerial level. This demonstrates a commitment to One Health principles at the highest levels of government.

Four Members have endorsed One Health initiatives at specific program levels. While not at the highest political level, these endorsements demonstrate a commitment to integrating One Health into specific programs and policies.

Two Members have indicated plans to seek endorsement from relevant authorities for One Health initiatives. This suggests an intent to secure political support in the future.

Only 1 Member has expressed plans to develop a strategic plan aimed at involving high-level officials in One Health initiatives. This proactive approach suggests an intention to garner political support through a well-thought-out strategy.

No Member has explicitly mentioned plans to initiate advocacy efforts for One Health currently. And similarly, no Member has stated plans to raise awareness about the importance of One Health currently.

Just one 1 Member has indicated that it requires immediate action to address the lack of political support and engagement for One Health initiatives. This underscores the urgency of the situation and the need for swift action to garner political endorsement.

In summary, Members have adopted varying levels of political support and engagement for One Health initiatives, ranging from Director General and Ministerial levels to specific program endorsements. Some Members have clear plans to seek higher-level endorsements or develop strategic plans to involve high-ranking officials, while others require immediate action to address the absence of political support.

Domain 1.3: Funding and resource allocation for One Health Multisector Coordination in Country:

1.3.1. Is there dedicated funding allocated for One Health multisector coordination activities?

Two Members have secured dedicated funding for One Health multisector coordination activities through grants provided by international organizations. This external funding source supports their efforts in promoting One Health integration.

Only 1 Member has allocated dedicated funding for One Health multisector coordination activities through its government's budget. This demonstrates a commitment to funding coordination efforts from within the national budget.

One 1 Member has dedicated funding available for One Health coordination activities through its Ministries of Health, Agriculture, or Environment. This reflects the importance of coordination across these key sectors.

Six Members have expressed plans to advocate for the inclusion or increase of dedicated national funds in the government budget. Additionally, they aim to strengthen their funding proposals to secure government support.

Only one Member has plans to develop proposals for grants and funding opportunities, indicating a proactive approach to secure external funding for One Health initiatives.

Two Members have articulated plans to establish dedicated One Health funds, signifying a commitment to secure dedicated funding sources for coordination efforts.

5 Members have plans to seek support from international organizations and donors. This approach seeks external funding and resources to advance their One Health coordination activities.

1.3.2. *Is there a coordinated mechanism for resource allocation for multisector activities?*

Only one Member has established a coordinated mechanism for resource allocation through risk-based resource prioritization. This approach helps in directing resources to areas of higher priority and need within the One Health context.

Two Members have adopted a coordinated mechanism that involves sharing and leveraging resources between sectors. This approach promotes collaboration and resource optimization.

One Member has plans to create a system for sharing and leveraging resources between sectors, indicating an intention to establish a coordinated mechanism for resource allocation.

Two Members are actively planning to develop a risk-based resource prioritization mechanism. This strategic approach will help optimize resource allocation based on identified risks.

Five Members i.e., **Afghanistan, Lebanon, Saudi Arabia, Oman, and Qatar** have expressed plans to establish a coordinated mechanism for budget and resource equity among sectors. This initiative aims to ensure fairness and equity in resource allocation.

Seven Members plan to seek technical assistance from international organizations. This collaborative approach aims to leverage external expertise to develop a coordinated mechanism for resource allocation.

Domain 1.4: Sub-regional, Regional and Global Cooperation

Thirteen Members, including actively engage in global cooperation with international organizations. This signifies their commitment to collaborating on a global scale to address emerging pandemics and health threats.

Just one Member is engaged in active regional cooperation, reflecting its commitment to working collaboratively with neighboring Members in the region to address health challenges.

Two Members participate in active sub-regional cooperation, indicating their efforts to collaborate with Members in their sub-region to collectively respond to emerging health threats.

Only one Member stands out for its active cooperation across multiple levels, including global, regional, sub-regional, bilateral, and research cooperation. This comprehensive approach demonstrates a proactive stance in addressing health challenges.

one Member has mentioned that it does not engage in active cooperation due to economic and needs differences. This acknowledgment reflects the unique challenges faced by certain Members in participating in cooperative efforts.

The responses provided showcase a range of cooperative approaches among Members, including global, regional, and sub-regional collaborations, as well as the acknowledgment of economic constraints in some cases. These cooperative efforts are crucial for addressing emerging pandemics and health threats, as they enable the sharing of resources, knowledge, and expertise to collectively combat global health challenges.

Pathway 2. Organizational & institutional development, implementation, and sectoral integration

Domain 2.1: Environmental Health

In summary, 4 Members have established mechanisms for **Animal-Human-Environment Risk Assessment**. This mechanism involves assessing the risks that arise at the intersection of animal health, human health, and the environment. It aims to identify and mitigate health risks that may originate from animals, such as zoonotic diseases.

Additionally, 3 other Members have established **Cross-Sectoral Health Committees**, which are inter-agency or inter-ministerial groups that bring together stakeholders from various sectors, including health, environment, agriculture to collaborate in addressing health-related issues that require a multi-sectoral approach.

Moreover, 3 Members have adopted **Cross-Sectoral Monitoring Programs and Control Interventions**. Such programs involve ongoing monitoring of health-related issues that transcend different sectors, such as tracking the spread of diseases that involve both humans and animals, while also taking actions to manage and mitigate these issues.

An **Environmental Impact Assessment** mechanism has been implemented only by one Member, indicating its commitment to considering environmental factors in policy, project planning, and decision-making.

However, although **none** of the Members have declared implementing **Eco-Health Approaches** at present, only One Member declared planning to incorporate such approaches in the future. Those involve holistic strategies that consider the interconnectedness of ecosystems, human health, and animal health. and seek to promote well-being by addressing environmental, social, and economic factors together.

Furthermore, to enhance their integration efforts, two Members have plans to **seek support from international organizations**, which could entail assistance, expertise, or funding. Meanwhile, 4 Members have plans to **strengthen collaboration among various government authorities** to develop integrated policies.

Domain 2.2: Collaboration on Capacity Building and Training

In summary, one Member indicated undertaking **collaboration training programs**. This involves bringing together professionals from different sectors to enhance their knowledge and skills in integrated health approaches. Meanwhile, two Members indicated engagement in **cross-sectoral capacity building initiatives**, which likely involve training, workshops, and knowledge-sharing to promote collaboration and understanding of One Health concepts.

Additionally, Afghanistan offers **Interdisciplinary One Health Courses** that aim to foster a multidisciplinary approach to health challenges, while ten Members declared implementing **Joint Training Workshops**. These workshops likely cover various aspects of One Health and promote collaboration among professionals from different sectors and nations. One Member has also declared its commitment to capacity building in the One Health field through plans to conduct more **training workshops**.

On the other hand, while some Members do not currently implement a mechanism for capacity building and collaboration, they declared plans to **Establish Joint Training Committee** (two Members) or **Design and Implement Training Programs (Oman)**.

Domain 2.3: Coordination on Risk Communication and Community Engagement (RCCE) activities

2.3.1. Are there coordinated efforts to enhance risk communication and raise public awareness about One Health?

In summary, 5 Members have declared active engagement in **collaborative joint public awareness campaigns**. Such campaigns often involve disseminating information about One Health to the general public through various media channels to increase awareness and understanding of the interconnectedness of human, animal, and environmental health. Two other Members are implementing **cross-sectoral community outreach initiatives**. Such initiatives ideally involve reaching out to communities with information about One Health, emphasizing the importance of collaboration between different sectors to address health issues effectively.

Meanwhile, four Members declared having developed **integrated joint risk communication plans**, which likely outline strategies for communicating health risks, especially those related to zoonotic diseases and environmental health, in a coordinated and comprehensive manner.

However, several Members have yet to adopt mechanisms for RCCE, but plan to conduct joint public awareness campaigns (One Member), develop integrated risk communication plans (two Members), enhance awareness programs for healthcare professionals (one Member), enhance awareness programs for healthcare professionals (one Member), and seek support from international organizations to establish RCCE strategies (two Members). Such plans entail the Members' willingness to commit to enhancing their efforts in establishing, implementing and sustaining RCCE strategies.

Domain 2.4: Specific programs coordination in planning and implementation.

2.4.1. Please select the topics and the appropriate options from the list below to indicate the areas where the country has a sustainable coordination mechanism between animal, human and environment health sectors in planning and implementation

Zoonotic and vector borne diseases.

In general, one Member demonstrated substantial efforts that reflects its proactive stance in addressing the complex challenges in Zoonotic Diseases prevention, preparedness and response. The presence of sustainable coordination mechanisms, cross-sectoral programs, and joint response teams suggests a commitment to collaborative, multisectoral approaches to disease prevention, preparedness, and response, which are essential for safeguarding public health in the face of these health threats.

Six Members have also made a substantial effort. They have sustainable coordination mechanisms in five areas each, including Coordinated Surveillance and Investigation, Establishment of Response Teams, Multisectoral Emergency Preparedness, and Timely Reporting of Disease Outbreaks.

Antimicrobial resistance (AMR)

With regards to AMR, nine Members have developed joint national AMR action plans, which likely involve comprehensive strategies to address AMR at the national level, emphasizing collaboration between various sectors. Another populated area was the establishment of multisector AMR committees, indicated by 6 Members. These committees are instrumental in coordinating efforts and strategies to combat AMR across different sectors.

Two Members indicated establishing sustainable coordination mechanism for collaborative AMR research initiatives and integrated surveillance of AMR, respectively. On the other hand, none of the Members indicated establishing specific collaboration mechanisms for Joint Antimicrobial Stewardship Programs nor Cross-Sectoral AMR Action Plans.

Food safety

With regard to food safety, establishment of sustainable coordination mechanisms through cross-sectoral committees has been declared by 9 Members, while 5 other Members indicated having sustainable mechanisms for integrated food safety inspection and control across different sectors. One Member was the only one that indicated having a sustainable coordination mechanism for joint foodborne disease surveillance. This involves monitoring and tracking foodborne diseases to ensure timely response and mitigation. One Member declared preparedness for food safety emergencies through multisectoral emergency planning, exercises, and drills related to food safety. Finally, one Member reported a sustainable mechanism for timely reporting of foodborne disease outbreaks and events, which is critical for early detection and response to food safety threats.

Pathway 3. Data, evidence, information systems, and knowledge exchange

Domain 3.1: Communication and Information Sharing

Notably, 3 Members have established **data sharing agreements** between different sectors involved in One Health, while Afghanistan and one Member indicated having **information sharing portals or platforms** that enable efficient sharing of relevant information among the sectors involved in One Health. Similarly, one other Member has established a **joint communication platform** that serves as a central channel for communication and information exchange within the One Health framework.

To facilitate ongoing communication and collaboration across sectors, 5 Members hold **regular sustainable intersectoral meetings** while one other has established **cross-sectoral working groups**. **None** of the Members, however, reported having Communication Strategy and Plans nor One Health Integrated Information Systems **currently** in place.

On the other hand, while some Members have no current established channels, they declared having plans in place to promote effective communication and collaboration among the different sectors. Those include one Member with plans to **designate communication focal points** from each sector to help streamline communication and information-sharing efforts; two others with plans to develop and implement communication strategies and plans for One Health; two Members who plan to organize regular intersectoral meetings to facilitate communication and collaboration among different sectors; and finally, one other Member with plans to seek support from international organizations.

Domain 3.2: Surveillance and Early Warning Systems Coordination

Some Members responded positively to this domain. For example, two Members indicated having **intersectoral outbreak investigation teams** established which work collaboratively to investigate and respond to disease outbreaks, while three other Members declared implementing **joint surveillance systems** to monitor **zoonotic diseases**. Additionally, 3 Members reflected their efforts in promoting a comprehensive approach to health monitoring through **One Health surveillance data sharing and reporting**.

While the majority of Members responded negatively to this domain, some Members (3) declared commitment to establish mechanisms for **joint surveillance and reporting**, whereas 5 Members plan to strengthen collaboration between relevant authorities to improve surveillance and response efforts, fostering a more integrated and coordinated approach. Meanwhile, two Members plan to seek support from international organizations via external expertise and resources.

Domain 3.3: Research collaboration, innovation, knowledge sharing and expertise exchange.

Specifically, two Members reported **collaborative research efforts**. Additionally, two other Members indicated focus on **research outcomes dissemination and knowledge sharing**, facilitating the exchange of information and insights related to One Health. Meanwhile, one Member reported conducting **cross-sectoral expert visits and exchanges**, indicating the crucial role played by international collaboration, extending beyond national borders to tackle global health issues that require a One Health approach.

On the other hands, some Members reported ambitious plans to initiate research studies to evaluate the effectiveness of One Health coordination efforts (4 Members), identify national scientific research priorities and allocate resources and expertise (1 Member), and seek support from international organizations (7 Members), indicating their commitment to adopting evidence-based approaches, advancing One Health research, and enhance their research capacities and initiatives related to One Health, respectively.

Domain 3.4: Coordinated Monitoring and Evaluation Mechanism for One Health

Notably, only two Members reported having **cross-sectoral performance indicators** to help assess the impact of coordinated efforts across sectors. Except for one Member, other Members indicated plans conduct joint impact assessments, develop cross-sectoral performance indicators (5 Members), establish intersectoral program evaluation committees (3 Members), and to seek support from international organizations to strengthen their monitoring and evaluation systems for One Health activities (6 Members)

Annex C. Challenges, key achievements and success factors, and need for international support on One Health coordination.

A. Challenges for One Health Multisector Coordination

Insufficient funding and resources were the most commonly reported with nine Members highlighting it as a significant obstacle, indicating that financial constraints may hinder the effective implementation of One Health initiatives and coordinated efforts.

Limited collaboration among sectors is the second most commonly reported challenge, with seven Members identifying it as an issue. Strengthening intersectoral collaboration is crucial for the success of the One Health approach.

Moreover, four Members reported **gaps in legislation** as a challenge. Ensuring the presence of supportive legal frameworks is essential for facilitating multisectoral coordination. Meanwhile, 3 Members expressed concerns about the **lack of performance monitoring and evaluation mechanisms**. The other Members also mention **limited capacity building and training initiatives** as a challenge, indicating the need for strengthening the skills and knowledge of professionals for effective One Health implementation.

Notably **two Members** additionally reported a unique set of challenges including:

- **Lack of integration of environmental considerations**
- **Lack of clarity and awareness on the one health approach**
- **Inadequate data sharing mechanisms**
- **Fragmented surveillance systems**
- **Weak risk communication and community engagement**
- **Lack of political support and engagement**
- **Lack of OH leadership and accountability**
- **Inadequate prioritization of actions among sectors**

These challenges highlight the importance of comprehensive strategies, resource allocation, capacity building, and leadership commitment in both Members to surmount these obstacles and facilitate successful multisectoral coordination, ultimately leading to improved public health, animal health, and environmental health outcomes.

B. Key achievements and key success factors**Table C1.** Key achievements and success factors of One Health Coordination in WOA Members.

Key Achievements	
Identified Categories	Details
1. One Health Institutionalization and Coordination:	<ul style="list-style-type: none"> -Development and adoption of one health strategic framework. --Launching One Health platforms for disease surveillance and control at state and national levels. -Mapping of the Ministry of Health (MOH) and Ministry of Agriculture (MOA) existing structures. -Establishing One Health Task Force Teams. -Designating One Health focal points in multiple countries. -Proposed creation of One Health Coordination Committee.
2. Zoonotic Disease Prioritization and Surveillance:	<ul style="list-style-type: none"> -Priority list of zoonotic diseases. -User guidelines for priority zoonotic diseases reporting. -Early detection, early warning, and early response plan for zoonosis outbreaks. -Integrated response for zoonotic disease outbreaks at federal and state levels
3. Antimicrobial Resistance (AMR) Strategy and Control:	<ul style="list-style-type: none"> -AMR strategies for multisectoral collaboration. -National committee and plan for AMR. -AMR National Action Plan emphasizing reasonable use of medicinal products.
4. Inter-Ministerial Cooperation and Data Sharing:	<ul style="list-style-type: none"> -Signing of a Data Sharing MoU. -Increasing cooperation between Ministries of Health, Agriculture, and Environment. -Sharing data and information across ministries
5. International Collaboration and Workshops:	<ul style="list-style-type: none"> -Participation in international workshops and conferences related to One Health, AMR, and zoonotic diseases. -Collaboration with international organizations and initiatives such as IAEA and ZODIAC. -Hosting international congresses and workshops on One Health and related topics.
6. Specific Disease Control and Surveillance:	<ul style="list-style-type: none"> -National control plans and integrated responses for specific zoonotic diseases like Rift Valley fever, Avian influenza, MERS, Monkey Pox, etc. -National control plans for rabies and zoonotic diseases.
7. Awareness and Capacity Building:	<ul style="list-style-type: none"> -National workshops on One Health and AMR. -Joint workshops on One Health and AMR action plans. -Training workshops on risk assessment, joint risk assessment, and response.

Key Success Factors	
Identified Categories	Details
1. Political Commitment and Support:	Highest level of political will and support. Adequate funding. Political recognition and support. The political support from the decision leaders in the three sectors.
2. Inter-Sectoral Coordination and Collaboration:	Coordination and cooperation among different sectors of One Health. Regular meetings in the communicable diseases committee. Unifying visions between sectors. Collaboration between public and private sectors. Effective communication.
3. International Collaboration and Support:	International organizations' support. Collaboration with international organizations.
4. Human Resources and Expertise:	Well-educated and qualified staff. Human resources available at the federal level (vets, public health officers, lab technicians, physicians). Dedicated staff.
5. Capacity Building and Awareness:	Raising awareness among decision-makers and stakeholders of the importance of One Health. Legacy of intersectoral coordination between MOH and MOAR in zoonotic diseases.
6. Infrastructure and Technological Support:	Electronic systems installed. Diligently supervising and controlling by the vets of the prescription and acquisition of VMPs by the farmers.
7. Collaborative Declarations and Manifestos:	Muscat Manifesto.

C. International technical Support

C.1. Action track 1: Enhancing One Health capacities to strengthen health systems.

Although 50% of Members are able to generate an enabling environment for effective implementation of One Health, this report reveals a notable need for international technical support in establishing the foundations for One Health capacities and in generating the mechanisms, tools, and capacities to establish a One Health competent workforce to facilitate One Health work as indicated by the Members response (67%).

C.2. Action track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics.

There is a high agreement among Members (67%) for the need of international technical support to assist in understanding drivers of emergence, spillover and spread of zoonotic pathogens in the region. Moreover, 61% of Members indicate that support is also necessary in actions related to Strengthening One Health surveillance, early warning and response (61%) and prioritizing evidence-based upstream interventions for prevention of zoonoses (50%).

C.3. Action track 3: Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases:

For this action track, 13 Members collectively agreed on the need for international technical support, in which 11 Members require support in strengthening the policy frameworks for the control and prevention of neglected zoonotic disease, 9 Members require support in implementing community-centric and risk-based solutions and finally 8 Members require support in enhancing political commitment and investment.

C.4. Action track 4: Strengthening the assessment, management and communication of food safety risks.

For this action track 50% of the responses received from the Members focuses on the need for improving food system data and analysis, scientific evidence, and risk assessment. Overall, strengthening the risk analysis of food safety requires the least international support when compared to the other action tracks (43%).

C.5. Action track 5: Curbing the silent pandemic of Antimicrobial Resistance (AMR)

The current report explores the need for international support in addressing actions at the national level. Despite the coordinating efforts and strategies to combat AMR across different sectors as indicated earlier in this report, there is still 67% agreement among Members on the need for international support in strengthening national capacity and capability to control AMR. Therefore, it is important to conduct a detailed gap analysis of the current efforts within the Members to identify priority areas for international support and build on the existing capacity.

C.6. Action track 6: Integrating the Environment into One Health

When Members were requested to highlight their need for international support, 14 out of 18 Members underscored the need for interoperable One Health in-service training program for environment, medical and veterinary sector professionals (78%). In addition, Members also recognize the importance of building capacities in protecting the ecosystem and environmental degradation, therefore, 13 Members highlighted the need for international support to achieve this objective (72%). Members responses on actions related to mainstreaming the health of the environment and ecosystems into the One Health approach and actions related to integrating environmental knowledge, data and evidence in decision-making also indicate the need for international support (56% and 50 responses, respectively).