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Evaluating Existing Independent and Intergovernmental Panels in Animal Health

 Olafur Valsson

Abstract

Independent and intergovernmental expert panels play an important role in shaping international responses to animal health and related global health challenges. In 2024, the United Nations High-Level Meeting on Antimicrobial Resistance (AMR) mandated the establishment of an Independent Panel on Evidence for Action (IPEA). To inform its development, this paper evaluates seven existing panels with mandates in animal health or related domains, excluding AMR focused panels: OFFLU, the Panel on Animal Health and Welfare (AHAW), the WOAHA Aquatic Animal Health Standards Commission, the Global Preparedness Monitoring Board (GPMB), the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs), the One Health High-Level Expert Panel (OHHLEP), and the Codex Alimentarius Commission (CODEX).

The evaluation applied a qualitative framework based on international standards from the OECD, the United Nations Evaluation Group (UNEG), the World Bank, and UNDP. Governance dimensions assessed included clarity of mandate, autonomy, accountability, transparency, diversity, responsiveness, evidence-based processes, and multidisciplinary composition.

Findings indicate that most panels demonstrate strengths in scientific rigor, clearly defined mandates, and responsiveness to emerging risks. CODEX and GPMB also show strong transparency and inclusiveness, while OHHLEP reflects a multidisciplinary One Health orientation. Common limitations were identified across panels, including limited structural autonomy from parent organizations, uneven inclusion of low- and middle-income country representatives, underrepresentation of social sciences and gender perspectives, and the absence of formal monitoring and evaluation mechanisms. The analysis concludes that while existing panels provide useful models, no single structure is sufficient on its own. The IPEA will need to combine features such as clear mandates, structural independence, transparent membership processes, inclusive representation, and robust evidence frameworks, while also considering trade-offs between agility, accountability, and inclusiveness.

Evaluating Existing Independent and Intergovernmental Panels in Animal Health

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The Center for Global Development is grateful to Wellcome Trust for contributions in support of this work.

Olafur Valsson. 2025. "Evaluating Existing Independent and Intergovernmental Panels in Animal Health." CGD Working Paper 732. Washington, DC: Center for Global Development. <https://www.cgdev.org/publication/evaluating-existing-independent-and-intergovernmental-panels-animal-health>

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Center for Global Development. 2025.

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Foreword

Antimicrobial resistance (AMR) is, in large part, a One Health challenge: the way we use and manage antimicrobials across people, animals, and the environment determines both today's risks and tomorrow's options. Following the High-Level Meeting on AMR at the United Nations General Assembly in September 2024, the task now is to turn momentum into institutions that accelerate impact. As countries and partners move toward establishing the Independent Panel for Evidence for Action against Antimicrobial Resistance (IPEA), it is essential to draw lessons from panels that already operate at the human–animal–environment interface.

The Center for Global Development commissioned this paper to generate that evidence and inform the choices involved in set-up and design. It offers a qualitative, comparative assessment of independent and intergovernmental bodies in animal health and adjacent One Health domains—examining, among others, the Food and Agriculture Organization of the United Nations (FAO) and World Organisation for Animal Health (WOAH) Network of Expertise on Animal Influenza (OFFLU); the European Food Safety Authority (EFSA) Panel on Animal Health and Welfare; the WOAH Aquatic Animal Health Standards Commission; the Global Preparedness Monitoring Board; the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs); the One Health High-Level Expert Panel (OHHLEP); and the Codex Alimentarius Commission (Codex). Rather than proposing a template, the paper distills practice-based insights—how to organise expertise, safeguard credibility, and produce guidance that is actually used—so that designers can make better, faster decisions and avoid well-known pitfalls.

In this work, Olafur Valsson uses panel case studies to examine what has and has not worked in each example before drawing out cross-cutting observations: how remit is set and refreshed; how members are selected and conflicts of interest are managed; which accountability and transparency mechanisms build legitimacy; how diversity and inclusion across regions, disciplines, and gender are ensured; how responsiveness and effectiveness are maintained; how evidence is scoped, appraised, peer-reviewed, and synthesised across disciplines; and which outputs—from standards and reports to tools and repositories—are most likely to support uptake by decision-makers. The write-up is intentionally example-led rather than purely thematic.

This is an insightful paper, with lessons that should be useful for those looking to understand the interaction between scientific research and policymaking across One Health—zoonoses, food safety, climate–health, and preparedness.

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Summary

In response to mounting global concern over antimicrobial resistance (AMR), the Interagency Coordination Group (IACG) recommended the establishment of several governance mechanisms to enhance international collaboration and oversight. This led to the creation of the Quadripartite collaboration, the Global Leaders Group (GLG), and the Multi-Stakeholder Partnership Platform. Following the 2024 UN High-Level Meeting on AMR, the establishment of the Independent Panel on Evidence for Action (IPEA) was mandated. In preparation for IPEA's formation, a scientific meeting in Lagos in April 2025, co-hosted by the Nigerian Academy of Science and the US National Academy of Medicine, reviewed lessons from existing international expert panels to inform IPEA's design.

The purpose of this paper is to assess governance features of global expert panels focused on animal health and related fields (excluding AMR-focused panels, with limited exceptions), and to extract actionable insights for designing the Independent Panel on Evidence on AMR (IPEA). A qualitative, comparative framework was used to evaluate how well a selected number of panels met core governance criteria including mandate clarity, autonomy, accountability, diversity, responsiveness, and evidence-based decision-making. International standards from the OECD, UNEG, World Bank, and UNDP provided the benchmark for the assessment.

Despite variation in structure and purpose, common strengths emerged. Most of the selected panels showed strong scientific integrity, well-defined mandates, and the capacity to respond to emerging risks. Many had technically diverse membership, and several integrated perspectives from human, animal, and environmental health, aligning with One Health principles.

However, structural weaknesses were also consistent. Most of the panels lacked full institutional autonomy, operating under parent bodies that controlled key processes such as member selection or topic prioritization. Transparency varied, with few panels disclosing internal deliberations or performance metrics. The inclusion of experts from low- and middle-income countries (LMICs) and disciplines such as social science, economics, or gender studies was inconsistent. Moreover, formal accountability mechanisms—such as Monitoring, Evaluation, and Learning (MEL) systems were often underdeveloped.

Successful panels tend to share a cluster of features: a clearly articulated mandate; operational independence from parent institutions; formalized, transparent processes for member selection and agenda-setting; diverse and interdisciplinary membership; responsive and adaptive working models; and a grounding in evidence-informed methodologies. Panels that balance these traits tend to sustain legitimacy and influence over time.

When considering governance structures, improving governance is not simply a matter of adding more structures. Trade-offs must be weighed. For example, instituting MEL systems might slow rapid-response capacity. Too large a panel risks inefficiency; too small, a lack of diversity.

Likewise, broad disciplinary representation is essential in One Health, but overly complex structures can dilute focus and effectiveness.

Panels hosted by multilateral institutions often benefit from global legitimacy and resource access, but this can come at the cost of operational autonomy. Funding mechanisms also affect independence, donor-driven agendas may skew priorities unless strong firewalls are put in place, whereas core, diversified funding can help panels remain focused and inclusive.

As the IPEA is developed, its success will depend not on replicating any one existing model, but on drawing from the best practices while actively addressing persistent governance gaps. Ensuring structural autonomy, embedding accountability mechanisms, supporting LMIC and interdisciplinary participation, and balancing transparency with functional agility are key. Above all, the panel should be designed with the flexibility to adapt to evolving global challenges, while grounded in rigorous, transparent, and equitable governance. With such a foundation, IPEA has the potential to become a credible, inclusive, and effective global One Health panel on AMR.

Introduction

With growing concerns over the rise of antimicrobial resistance (AMR), the Interagency Coordination Group on AMR (IACG) made governance recommendations in 2016. The first two were implemented through establishing a quadripartite collaboration, the creation of the Global Leaders Group (GLG) and within that recommendation, establishing the Multi-Stakeholder Partnership Platform. The 2024 United Nations High-Level Meeting on AMR mandated establishing an Independent Panel on Evidence for Action (IPEA).

In late April 2025, a scientific meeting co-sponsored by the Nigerian Academy of Science and the US National Academy of Medicine took place in Lagos, Nigeria to explore lessons learned from prior international science panels that may be relevant to the creation of IPEA. An early draft of this paper was used as a pre-read to stimulate discussion at the conference. This paper was finalized based on valuable feedback taken in Lagos from a limited number of animal health experts among the participants.

Objectives

The goal was to write a policy paper to describe and analyse the performance of a selection of independent panels across various animal health contexts. Panels on antimicrobial resistance were excluded, focusing more on strict animal health issues with two exceptions, one panel on One-Health and another one panel on food, exploring how the panels were organized, and how they fulfilled certain criteria identified as critical for a well-functioning panel. The aim was to offer actionable

insights on how the emerging IPEA on AMR can be effectively structured for success while avoiding common pitfalls encountered by current panels.

Methodology/framework

The approach chosen was to first identify international or intergovernmental panels covering various aspects of animal health. This was done through an open search and by personal consultations with recognised international experts on animal health. The criteria for selection of panels were: 1. Scientific independence, credibility and autonomy; 2. Authority in animal health and/or food safety, preferably global or regional; 3. Role in scientific risk assessment and policy advice; and 4. Transparency and accountability.

Following the initial screening a shortlist of panels was created based on criteria identified and agreed with CGDE in the process. The main criteria for the selection were: 1. The panel is internationally recognised; 2. With a mandate in animal health or food safety 3. Providing international standards, recommendations or policy reviews on animal health or food safety; 4. Publishing reports or papers on the outcome of the work of the panel.

The short-listed panels were evaluated against specific criteria considered as key structural elements related to their function. The parameters assessed were;

- clarity of mandate and membership processes,
- independence and autonomy,
- accountability and transparency,
- diversity and inclusivity,
- responsiveness and effectiveness,
- evidence-assessment frameworks and processes.
- multidisciplinary expert composition

Framework for the evaluation

To evaluate the selected international intergovernmental advisory panels in animal health, a structured evidence-assessment framework can help measure their impact, effectiveness, and reliability (1) (2). The approach selected was to use a combination of frameworks from the international organisations; UNEG (United Nations Evaluation Group), OECD and World Bank (WB)/United Nations Development Programme (UNDP). The frameworks used were the OECDs Principles on Integrity and Accountability, UNEG's Norms and Standards (3) and, Good Governance Principles from WB (4) and UNDP (5). The aim of using these evaluation frameworks was to provide sufficient information to provide a preliminary qualitative evaluation of the above-mentioned parameters with certain strength for each of the panels (6–8).

Given the time allocated to the assessment a qualitative approach was chosen, as quantitative analysis would require substantial time and multi-faceted approach. A qualitative approach gives an idea of what has been successful and where there are gaps in the structure of the panels evaluated. The outcomes should however be seen as preliminary as it would require substantial more in-depth analysis to analyse the performance of the panels to its full extent.

Outcome

Out of thirty-one identified and screened candidates for panels/committees for evaluation (See Annex 2), seven panels were selected for further evaluation. The screening did not intend to identify all panels in animal health but rather name a few panels to choose from given the criteria set up. The number of panels shortlisted was arbitrarily decided, considering the time allocated to the work. Overview of the panels selected is given in Box 1.

BOX 1. Panels selected

OFFLU; is a network of expertise on animal influenza.

The Panel on Animal Health and Welfare (AHAW); provides scientific advice on all aspects of animal diseases and animal welfare.

WOAH Aquatic Animal Health Standards Commission; is an expert panel responsible for ensuring that the Aquatic Animal Health Code (the Aquatic Code) and Manual of Diagnostic Tests for Aquatic Animals (the Aquatic Manual) reflect current scientific information.

Global Preparedness Monitoring Board; provides an independent and comprehensive appraisal for policy makers and the world about progress towards increased preparedness and response capacity.

The Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) provides recommendations on prevention, detection and control of transboundary animal diseases (TADs).

The One Health High-Level Expert Panel (OHHLEP): OHHLEP is an interdisciplinary initiative created by the Quadripartite to improve our understanding of how diseases with the potential to trigger pandemics behave.

Codex Alimentarius (CODEX) (various committees): CODEX's General subject committees develop General Standards, Guidelines and Codes of Practice which are applied transversely to all products and product categories. emerge and spread.

Individual panel evaluation

OFFLU (9–14)

The assessment draws on OFFLU’s strategic documents, annual reports, protocols, and public communications. (More detailed analysis is provided in Annex 1).

Summary of the assessment

OFFLU plays a critical global role in coordinating influenza expertise for animal health. It demonstrates strong alignment with key governance principles in terms of technical responsiveness, scientific integrity, and collaboration with global institutions such as WHO. Its ability to rapidly respond to emerging influenza threats, support vaccine strain selection, and disseminate diagnostic protocols displays high operational value.

The network is transparent about its technical work, notably through its annual reports. However, as far as it was possible to assess, it operates without a formal legal identity or institutional autonomy, as it remains nested within FAO and WOAH frameworks. The absence of clear governance structures, publicly defined membership processes, and financial reporting weakens its alignment with best practices in accountability and institutional independence.

While OFFLU engages a technically diverse network of veterinary and laboratory professionals across regions, it has yet to institutionalize a commitment to gender equity, LMIC leadership, or interdisciplinary One Health participation, particularly in fields like environmental science, social science, or public health policy.

OFFLU is a technically strong and globally influential network with demonstrable impact in animal influenza control. The preliminary assessment indicates it could benefit from formalizing its governance framework and broadening its inclusivity and disciplinary scope to fully meet international standards of transparency, autonomy, and equity.

The panel on Animal Health and Welfare (AHAW) (15–19)

The assessment of the panel draws on publicly available information from EFSA, including panel mandates, reports, protocols, and operational procedures.

Summary of the assessment

The Panel of Animal Health and Welfare, working under the European Food Safety Authority (EFSA), shows strong alignment with core governance principles, particularly in areas of scientific rigor, transparency, and responsiveness. The panel benefits from a clearly defined mandate, well-established procedures, and public access to its scientific opinions and activities, supporting high levels of accountability and operational transparency.

AHAW demonstrates geographic diversity among its panel members and draws from a strong base of technical expertise in animal health, disease risk assessment, and welfare science. It applies robust evidence-assessment frameworks in accordance with EFSA's established methodologies, ensuring scientific consistency and credibility in its outputs.

However, the panel's autonomy is framed within EFSA's broader institutional structure, and its governance independence is not explicitly safeguarded. Additionally, while there is strong disciplinary representation in veterinary science and related fields, the panel shows limited inclusion of experts from social sciences, economics, or environmental health, constraining its alignment with a broader One Health perspective.

In summary, AHAW is a highly credible scientific body with strong procedural integrity and responsiveness. The assessment indicates it could further enhance its governance alignment by expanding interdisciplinary participation and making its expert composition and influence pathways more visible.

WOAH Aquatic Animal Health Standards Commission (20–22)

The preliminary assessment of the Commission draws on publicly available documents, including WOAHS standards, commission structure, terms of reference, and confidentiality procedures (20–23).

Summary of the assessment

The WOAHS Aquatic Animal Health Standards Commission demonstrates strong alignment with international governance principles in terms of its clarity of mandate, scientific rigor, and standard-setting authority. It plays a central role in shaping global aquatic animal health regulations, with well-defined responsibilities and a structured process for reviewing and updating international standards.

The Commission benefits from high technical credibility, and its work is publicly accessible through reports and standards. It engages with global stakeholders and offers opportunities for public comment, reinforcing its transparency and inclusiveness at the consultation level. The confidentiality declarations signed by members further support ethical governance and scientific independence.

However, the Commission operates within the framework of WOAHS and does not possess formal institutional autonomy. Transparency of internal deliberations, such as dissenting views, individual contributions, or stakeholder influence is limited due to confidentiality rules. While its membership is geographically diverse and technically expert, there is limited evidence of systematic efforts to broaden participation from underrepresented disciplines or integrate One Health principles.

In sum, the Commission is a high-functioning standard-setting body with strong technical and procedural integrity, but it would benefit from enhanced visibility of its internal governance

processes and a more structured approach to interdisciplinary representation. Impact of the work of the panel is substantial when the standards they propose are adopted by the General Assembly of WOA, they become applicable to WOA Members across the globe. WOA standards are the standards the World Trade Organization (WTO) applies to international trade in live animals and animal products.

Global Preparedness Monitoring Board (GBMP) (24–27)

The evaluation draws on publicly available documents, including GPMB reports, monitoring frameworks, board membership information, and organizational history.

Summary of the assessment

The Global Preparedness Monitoring Board demonstrates strong alignment across all core governance and accountability criteria. Co-convened by the WHO and the World Bank, it operates with a well-defined mandate to monitor global health preparedness and advocate for sustained investment in pandemic prevention and response.

GPMB is highly transparent, publishing annual reports, assessments, and strategic recommendations that are grounded in evidence-based monitoring frameworks. Its outputs are designed for public, policy, and institutional audiences, reinforcing its accountability and influence on global health governance.

The Board's composition is diverse and multidisciplinary, with members selected to reflect geographic, sectoral, and gender diversity, including expertise in human health, veterinary epidemiology, economics, law, environment, and social policy. This structure supports a strong One Health orientation and enhances the credibility of its assessments.

While its formal independence is slightly constrained by its origins within two major institutions (WHO and the World Bank), its operations, publications, and membership processes are managed in a way that safeguards operational autonomy and scientific impartiality.

In summary, GPMB exemplifies a high-performing global governance body—strategically positioned, methodologically sound, and diverse in expertise. It serves as a model for transparency, accountability, and cross-sectoral collaboration in the global health security architecture.

The Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) (28,29)

The evaluation focused on its global and regional governance groups. It drew on publicly available documents including strategic frameworks, governance descriptions, and operational plans.

Summary of the assessment

The global and regional governance groups are governance panels of GF-TADs, a joint initiative of FAO and WOAAH, with the expected participation of WHO for the zoonoses, to achieve the prevention, detection and control of transboundary animal diseases (TADs) and in particular to address their original and global dimensions. The initiative combines the strengths of both international organizations to achieve agreed common objectives. The general advisory role of the Global Steering Committee includes institutional, strategic, technical (initiating, monitoring, and evaluation), communication, coordination, lobbying, and financial issues. This broad task is reflected in the composition of the GSC. The Committee, co-chaired by WOAAH and FAO, brings together representatives and observers of major development partners, donors, regional organisations, and stakeholders, as well as the chairpersons of the RSCs and a representative of the World Health Organisation (WHO) in view of the zoonotic aspects of TADs and emerging diseases.

It provides a structured and regionally inclusive mechanism for coordinating the global response to priority animal diseases. Its governance model includes a Global Steering Committee, Management Committee, Regional Steering Committees, and Secretariats, which together support vertical and horizontal coordination.

GF-TADs shows strong mandate clarity, with roles and responsibilities clearly outlined at both global and regional levels. The initiative promotes regional ownership, stakeholder consultation, and alignment of disease control efforts through shared strategies and regional roadmaps.

Its transparency in general terms is strong with publicly available strategy documents, although there could be room for improvement on more detailed information on decision-making processes, performance metrics, and financial flows. Similarly, while GF-TADs engages a range of technical stakeholders and regional actors, its governance structure could benefit from a formal mechanism for broader stakeholder accountability.

The framework's evidence use is embedded in technical planning and priority setting. Formal Monitoring Evaluation and Learning (MEL) systems and methodological guidance are being developed. It draws heavily on veterinary and policy expertise, but interdisciplinary integration from social, economic, or environmental fields remains limited.

In summary, GF-TADs is a robust, regionally grounded coordination platform for transboundary animal disease control. It is institutionally sound, inclusive in its structure, and evolving in its strategic direction, but it would benefit from enhanced transparency, independent evaluation mechanisms, and greater interdisciplinary engagement to fully meet good governance standards.

The One Health High-Level Expert Panel (OHHLEP) (30–34)

An interdisciplinary initiative created by the Quadripartite (FAO, UNEP, WHO, WOA) to provide scientific advice and strategic guidance on emerging health threats at the human–animal–environment interface.

The preliminary assessment draws on publicly available documents related to the panel’s mandate, structure, transparency, diversity, responsiveness, evidence frameworks, and multidisciplinary engagement.

Summary of the assessment

OHHLEP demonstrates strong alignment with key governance principles. Its mandate is clearly defined, and the panel’s multidisciplinary membership includes internationally recognized experts from diverse regions and disciplines such as public health, veterinary sciences, environmental science, law, and social science. The group is gender-balanced and geographically inclusive, supporting equity and legitimacy.

The panel shows high responsiveness, contributing expert guidance to major strategic frameworks like the One Health Joint Plan of Action and the One Health Theory of Change. It also supports the integration of One Health thinking into pandemic prevention and global health security mechanisms.

Although the panel operates with declared independence, it is institutionally hosted by the Quadripartite organizations, and is an advisory panel for the quadripartite, which affects its autonomy. OHHLEP publishes reports and strategic documents, but transparency on internal deliberations and evidence assessment methodologies was not readily clear in the documents assessed.

In summary, OHHLEP is a multidisciplinary scientific body that is aimed at advancing the global One Health agenda. To further strengthen its governance alignment, it could enhance procedural transparency and formalize its operational independence from its convening organizations.

Codex Alimentarius (CODEX) (35–39)

The evaluation drew on publicly available information on the Commission’s structure, mandate, transparency, inclusivity, scientific rigor, and responsiveness in the context of international food safety governance.

Summary of the assessment

The Codex Alimentarius Commission is a well-established global standard-setting body that demonstrates strong alignment with international governance and accountability principles. Jointly established by FAO and WHO in 1963, its mandate to develop international food standards that protect consumer health and ensure fair trade is clearly defined and widely respected.

CODEX exhibits high levels of transparency, with open access to meeting reports, procedural manuals, draft standards, and final decisions. Its decision-making processes are participatory, and membership is nearly universal, including 188 countries and one regional organization (the European Union). CODEX also allows for extensive engagement by non-governmental and intergovernmental observer organizations, reinforcing its inclusive and participatory model.

The Commission’s standards are grounded in scientific evidence, supported by expert input from FAO/WHO scientific advisory bodies such as the *Joint FAO/WHO Expert Committee on Food Additives* (JECFA), *Joint FAO/WHO Meeting on Pesticide Residues* (JMPR), and the *Joint FAO/WHO Expert Meetings on Microbiological Risk Assessment* (JEMRA). CODEX procedures reflect formal risk analysis frameworks and evidence-based methodologies, ensuring scientific rigor and global relevance.

Although CODEX operates under FAO and WHO, it maintains a high level of procedural and operational autonomy. Its multidisciplinary approach incorporates expertise from food safety, nutrition, toxicology, economics, and law, which strengthens its legitimacy and ability to respond to emerging global food system challenges.

In summary, CODEX is a mature, transparent, and technically robust institution that exemplifies best practices in global food governance. It serves as a global model for intergovernmental collaboration, scientific standard-setting, and inclusive governance in the public interest. Its standards on food safety are directly applicable so the impact it has on global food safety is substantial.

Comparison of panels

Looking at strengths and gaps of the seven panels evaluated the following tables give an idea of common areas of strength and possible areas which could be improved of the seven panels evaluated.

Common strengths across panels

Governance Area	Shared Strengths
Clarity of Mandate	All entities have clearly defined mandates with sector-specific focus areas.
Scientific Rigor	Most panels rely on evidence-based processes and established scientific frameworks.
Responsiveness	Panels like OFFLU, GPMB, and CODEX have demonstrated timely response to emerging risks.
Multidisciplinary Composition	Most panels include technical diversity; GPMB and OHHLEP are notable for true One Health interdisciplinarity.
Diversity (Geographic & Gender)	Panels like GPMB, CODEX, and OHHLEP show strong regional and gender inclusion.

Common weaknesses across panels

Governance Area	Shared Weaknesses/Gaps
Independence and Autonomy	Most panels operate under parent organizations without full structural autonomy. Membership in the scientific panels and selection of topics are in most cases controlled by the parent organization, sometimes in a non-transparent process without accountability.
Transparency of Internal Processes	Deliberations, dissent, and stakeholder influence pathways are often not disclosed.
Inclusivity (LMIC & non-technical)	Inconsistent inclusion of LMIC experts or non-technical disciplines.
Formal Accountability Mechanisms	Few panels have MEL systems or systematic performance tracking.
Gender Policy/Equity Reporting	Most lack gender-specific policies or disaggregated reporting.

Summary comparison matrix

Panel/ Body	Clear Mandate	Autonomy	Transparency	Diversity	Responsiveness	Evidence-Based	Multidisciplinary
OFFLU	A	C	B	C	B	A	B
AHAW	A	B	A	B	A	A	B
WOAH Aquatic	A	B	B	B	B	A	B
GPMB	A	B	A	A	A	A	A
GF-TADs	A	C	C	B	B	B	B
OHHLEP	A	B	B	A	B	B	A
CODEX	A	A	A	A	A	A	A

A = Strongly aligned | B = Moderately or partially aligned | C = Weak or absent alignment.

Discussion

Some of the differences between the bodies here described can be because of their specific functions. Identified gaps might be intentional as potential tensions and unintended consequences may arise when addressing governance gaps in global expert panels and intergovernmental bodies. Some of the panels have a narrow scope and the composition is reflected in that the experts are from that discipline, like the WOA Aquatic Animal Health Standards Commission. As example, while increasing transparency is crucial, disclosing internal deliberations is in some instances considered against the functioning of the panel. To preserve independence, transparency reforms could focus on procedural visibility rather than individual contributions and clearly established processes for choosing panel members, topics to investigate and clear structures for streams of funding the panels. Likewise, introducing formal MEL processes can help track performance, but may reduce

the agility of technical bodies that must respond quickly to emergencies. In contexts like outbreak response (OFFLU, GF-TADs), rigid MEL structures might delay critical action. MEL tools need therefore to be adaptive.

Improving governance requires a balance between structure and adaptability. The goal should not be to apply uniform reforms, but to design changes that protect institutional strengths while closing priority gaps. By managing trade-offs consciously, panels can evolve into more inclusive, effective, and resilient institutions without undermining what already works.

Conclusion

The assessment of seven global expert panels reveals that while each institution brings strong sectoral expertise, clear mandates, and demonstrated responsiveness to its mission, common governance gaps persist. Most panels excel in scientific rigor and stakeholder engagement, but might gain from stronger institutional autonomy, procedural transparency, and inclusive representation, particularly from LMICs and non-technical disciplines. Despite these challenges, the diversity of models, ranging from the technically robust CODEX and OFFLU to the strategically integrated OHHLEP and GPMB, offers valuable lessons. Strengthening governance frameworks in a balanced way could enhance their legitimacy, equity, and impact without compromising core strengths such as agility and scientific independence.

The importance of securing diversified, sustainable funding to reduce dependency on host institutions or donors is highlighted. Dedicated financial structures and support can for instance be essential for enabling LMIC participation, and is essential for ensuring operational continuity, and preserving scientific autonomy.

The CODEX and GPMB emerge as the most consistently well-aligned with governance best practices. OFFLU, WOAHA Aquatic Animal Health Commission, and GF-TADs show strong technical merit but might lack in institutional autonomy. OHHLEP and GPMB offer models of interdisciplinary, One Health-aligned governance, though both are institutionally embedded in larger organizations. Across the board, accountability mechanisms, inclusivity frameworks, and transparency of internal decisions are the most common gaps.

Panels that demonstrate the greatest real-world impact consistently exhibit several key characteristics: a clear and specific mandate, strong structural autonomy, high levels of transparency and openness, multidisciplinary and diverse expertise, a responsive and adaptable working model, and a firm grounding in evidence-based decision-making. These features enable panels not only to maintain technical credibility and stakeholder trust but also to remain agile and relevant in a rapidly evolving global landscape. In contrast, panels lacking in these areas can face challenges in influence, effectiveness, and legitimacy.

Several critical design questions should be further discussed. Achieving the appropriate degree of diversity is particularly important in One Health, but not always easily balanced, so considerations on whether minimal cross-sector inclusion is sufficient or whether broader, more integrated representation is necessary should be addressed. Similarly, the need for responsiveness should be considered. How important is it in the context of the panel to have formal rapid response capacities or does it better fit to have the structure to function through periodic, structured deliberations. Another question is where IPEA will sit and how does it link to the other structures already established on AMR, the Quadripartite Joint Secretariat on AMR, the Global Leaders Group and the Multistakeholder Partnership Platform. Finally, deciding the right panel size involves balancing the need for wide multidisciplinary input with the practical need for efficiency and agility. The inclusiveness is another important issue. Who is eligible to participate and the rules and regulation on inclusiveness should be part of the foundational texts of the panel. These considerations highlight that in addition to strong foundational principles, context-specific adaptations should be further discussed when setting up an Independent scientific panel on a One health issue as AMR.

As the IPEA is developed, its success will depend not on replicating any one existing model, but on drawing from the best practices while actively addressing persistent governance gaps. Ensuring structural autonomy, embedding accountability mechanisms, supporting LMIC and interdisciplinary participation, and balancing transparency with functional agility are key. Above all, the panel should be designed with the flexibility to adapt to evolving global challenges, while grounded in rigorous, transparent, and equitable governance. With such a foundation, IPEA has the potential to become a credible, inclusive, and effective global One Health panel on AMR.

References

1. Guthrie S, Wamae W, Diepeveen S, Wooding S, Grant J. Measuring research: A guide to research evaluation frameworks and tools [Internet]. Santa Monica, CA: RAND Corporation; 2013. Available from: <https://www.rand.org/pubs/monographs/MG1217.html>
2. Pyone T, Smith H, van den Broek N. Frameworks to assess health systems governance: A systematic review. Health Policy Plan [Internet]. 2017 Jun 1;32(5):710–22. Available from: <https://doi.org/10.1093/heapol/czx007>
3. United Nations Evaluation Group. UNEG. 2016 [cited 2025 Apr 5]. Norms and Standards for Evaluation. Available from: https://www.unevaluation.org/uneg_publications/uneg-norms-and-standards-evaluation-un-system
4. World Bank. World Bank Governance and Development [Internet]. 1992 [cited 2025 Apr 5]. Available from: <https://documents1.worldbank.org/curated/en/604951468739447676/pdf/multi-page.pdf>
5. UNDP. UNDP Governance for Sustainable Human Development: A UNDP Policy Document [Internet]. 1994 [cited 2025 Apr 5]. Available from: <https://www.undp-aci.org/publications/other/undp/governance/undppolicydoc97-e.pdf>
6. Mathot A, Giannini F. Evaluation Framework and Practices: A comparative analysis of five OECD countries. OECD Journal on Budgeting. 2022 Sep 17;22.
7. Liverani A, Lundgren H. Evaluation Systems in Development Aid Agencies an Analysis of DAC Peer Reviews 1996–2004. Evaluation. 2007 Apr 1;13:241–56.
8. Luoto J, Maglione MA, Johnsen B, Chang C, S. Higgs E, Perry T, et al. A Comparison of Frameworks Evaluating Evidence for Global Health Interventions. PLoS Med [Internet]. 2013 Jul 9;10(7):e1001469-. Available from: <https://doi.org/10.1371/journal.pmed.1001469>
9. OFFLU. OFFLU Website [Internet]. [cited 2025 Apr 6]. Available from: <https://www.offlu.org/>
10. OFFLU. OFFLU Strategy 2030 [Internet]. 2021 [cited 2025 Apr 5]. Available from: <https://www.offlu.org/wp-content/uploads/2021/03/OFFLUsurveillance.pdf>
11. OFFLU. OFFLU Annual Report 2022 [Internet]. World Organisation for Animal Health (WOAH); 2023. Available from: <https://www.woah.org/app/uploads/2023/05/offlu-annual-report-2022.pdf>
12. OFFLU. OFFLU Annual Report 2023 [Internet]. World Organisation for Animal Health (WOAH); 2024. Available from: https://www.offlu.org/wp-content/uploads/2024/02/OFFLU_Annual_Report_2023.pdf
13. FAO, WHO, WOA. Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries [Internet]. FAO, WHO, WOA; 2018. Available from: <https://www.who.int/publications/i/item/9789241514934>

14. FAO, WHO, WOA. Tripartite Zoonoses Guide: A Framework for One Health Coordination [Internet]. Tripartite Collaboration on Zoonotic Diseases; 2019. Available from: <https://www.fao.org/3/ca2942en/ca2942en.pdf>
15. Committee ES. Overview of EFSA's scientific risk assessment procedures. EFSA Journal [Internet]. 2018;16(S1):e5343. Available from: <https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2018.5343>
16. Committee ES. Guidance on the use of EFSA's Weight of Evidence approach in scientific assessments. EFSA Journal [Internet]. 2017;15(8):e4971. Available from: <https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2017.4971>
17. (EFSA) EFSA. AHAW Annual Report 2022 [Internet]. 2023. Available from: <https://www.efsa.europa.eu/en/supporting/pub/en-8475>
18. (EFSA) EFSA. EFSA Panel on Animal Health and Welfare (AHAW) [Internet]. 2024. Available from: <https://www.efsa.europa.eu/en/science/scientific-committee-and-panels/ahaw>
19. (EFSA) EFSA. AHAW Panel Members and Network [Internet]. 2023. Available from: <https://www.efsa.europa.eu/sites/default/files/assets/ahawnetwork.pdf>
20. (WOAH) WO for AH. WOA Aquatic Code [Internet]. 2023. Available from: <https://www.aphis.usda.gov/international-standards/woah/aquatic-code>
21. (WOAH) WO for AH. Aquatic Animals Commission [Internet]. 2024. Available from: <https://www.woah.org/en/what-we-do/standards/standard-setting-process/aquatic-animals-commission/>
22. (WOAH) WO for AH. WOA Specialist Commissions Overview [Internet]. 2024. Available from: <https://www.woah.org/en/who-we-are/structure/framework/basic-texts/specialist-commissions/>
23. (WOAH) WO for AH. Declaration of Interests and Confidentiality Undertaking for WOA Experts [Internet]. 2024. Available from: <https://www.woah.org/en/document/declaration-of-interests-and-confidentiality-undertaking/>
24. GPMB. About the Global Preparedness Monitoring Board (GPMB) [Internet]. 2024. Available from: <https://www.gpmb.org/about-us>
25. GPMB. GPMB Annual Reports [Internet]. Available from: <https://www.gpmb.org/reports>
26. GPMB. GPMB Monitoring Framework [Internet]. 2022. Available from: <https://www.gpmb.org/monitoring-framework>
27. GPMB. GPMB Announces New Board Membership [Internet]. 2022. Available from: <https://gpmb.org/news/news/item/30-09-2022-global-preparedness-monitoring-board-announces-new-board-membership-bringing-diverse-expertise-to-independent-monitoring>
28. FAO, WOA. GF-TADs Strategy 2021–2025 [Internet]. 2021. Available from: <https://openknowledge.fao.org/server/api/core/bitstreams/f0e24084-346f-4371-94db-4bae1700962b/content>

29. FAO, WOA. GF-TADs Governance Overview [Internet]. 2023. Available from: <https://www.gf-tads.org/about/governance/en/>
30. WHO, FAO, UNEP, WOA. The Quadripartite Organizations Announce the Second Term Members of OHHLEP. 2024; Available from: [https://www.who.int/news/item/17-04-2024-the-quadripartite-organizations-announce-the-second-term-members-of-its-one-health-high-level-expert-panel-\(ohhlep\)](https://www.who.int/news/item/17-04-2024-the-quadripartite-organizations-announce-the-second-term-members-of-its-one-health-high-level-expert-panel-(ohhlep))
31. OHHLEP. OHHLEP – One Health Theory of Change [Internet]. 2022. Available from: <https://cdn.who.int/media/docs/default-source/one-health/ohhlep/ohhlep--one-health-theory-of-change.pdf>
32. OHHLEP. One Health High-Level Expert Panel Annual Report 2021 [Internet]. 2021. Available from: <https://www.who.int/publications/m/item/one-health-high-level-expert-panel-annual-report-2021>
33. WHO, FAO, UNEP, WOA. Terms of Reference: One Health High-Level Expert Panel (OHHLEP) [Internet]. 2023. Available from: https://cdn.who.int/media/docs/default-source/one-health/ohhlep/ohhlep-tor2023_oct2.pdf
34. WHO, FAO, UNEP, WOA. Operationalizing One Health: A Policy Framework to Combat Health Threats at the Human-Animal-Environment Interface [Internet]. 2022. Available from: <https://www.who.int/publications/i/item/9789240059139>
35. Commission CA. Codex Membership [Internet]. 2024. Available from: <https://www.fao.org/fao-who-codexalimentarius/about-codex/members/en/>
36. Contributors W. Codex Alimentarius. In 2024. Available from: https://en.wikipedia.org/wiki/Codex_Alimentarius
37. Commission CA. Codex Procedural Manual (28th Edition) [Internet]. 2024. Available from: <https://www.fao.org/fao-who-codexalimentarius/publications/procedural-manual/en/>
38. FAO, WHO. Codex Alimentarius: About [Internet]. 2024. Available from: <https://www.fao.org/fao-who-codexalimentarius>
39. FAO, WHO. Joint FAO/WHO Food Standards Programme: FAO/WHO Codex Trust Fund [Internet]. 2023. Available from: <https://openknowledge.fao.org/handle/20.500.14283/cb9269en>
40. FAO, WOA. Collaborative Efforts on Animal Influenza: OFFLU Annual Overview. Rome & Paris: Food and Agriculture Organization of the United Nations and World Organisation for Animal Health; 2022.
41. FAO, WOA. Collaborative Efforts on Animal Influenza: OFFLU Annual Overview. Rome & Paris: Food and Agriculture Organization of the United Nations and World Organisation for Animal Health; 2022.

Annex 1. Evaluation in table format

OFFLU (9–14)

Evaluation Area	Preliminary Assessment Summary
Clarity of Mandate and Membership	Partially aligned. OFFLU’s mandate is operationally clear through strategic documents. However, governance details (legal status, decision-making structures, membership processes) were not as easily accessible.
Independence and Autonomy	Moderately aligned. Scientific independence is evident through peer networks and outputs. However, institutional autonomy is less clearly documented. Safeguards protecting agenda-setting from FAO/WOAH influence were not clearly identified.
Accountability and Transparency	Moderately aligned. Annual reports document technical activities (2022, 2023) (11,12), improving transparency. However, governance, financial disclosure, and performance metrics are not easily accessible.
Diversity and Inclusivity (40)	Technically inclusive, but less clearly equitable. There is clear geographic and institutional diversity in laboratory participation. However, gender policy, and equity indicators are less visible.
Responsiveness and Effectiveness (41)	Strongly aligned. OFFLU shows timely, coordinated response to outbreaks (HPAI), provides vaccine guidance, and supports surveillance globally. Regular collaboration with WHO and national partners reflects effectiveness.
Evidence-Assessment Frameworks and Processes	Robust, but not fully transparent. Surveillance, vaccine matching (e.g., Antigenic Indexing Mechanism), and risk assessment frameworks are in use. However, internal methodologies for weighing and validating evidence are less transparent.
Multidisciplinary Expert Composition	Moderately aligned. OFFLU includes a range of technical veterinary disciplines. However, it lacks structured engagement from social sciences, environmental health, behavioural science, or cross-sectoral One Health governance roles to be fully aligned to best practices.

The panel on Animal Health and Welfare (AHAW) (15–19)

Evaluation Area	Preliminary Assessment Summary
Clarity of Mandate and Membership	Strongly aligned. AHAW operates under EFSA with a clearly defined mandate to provide scientific advice on animal health and welfare. Membership includes European scientific experts in relevant fields.
Independence and Autonomy	Moderately aligned. AHAW maintains scientific independence in its assessments, though its autonomy is framed by EFSA’s broader operational and regulatory mandates. AHAW is funded through the EU’s general budget as part of EFSA, ensuring public-sector support. Additional co-financed grants, such as Horizon Europe projects, supplement its scientific work. This structure supports scientific independence while providing transparency through EU financial governance.
Accountability and Transparency	Strongly aligned. Reports, activities, and methodologies are made publicly available through EFSA’s platform, promoting transparency and accountability.
Diversity and Inclusivity	Moderately aligned. Geographic diversity is present among panel members, but gender and interdisciplinary inclusion is less clear.
Responsiveness and Effectiveness	Strongly aligned. AHAW responds promptly to emerging animal health and welfare issues, providing guidance that supports EU-level policy and legislation.
Evidence-Assessment Frameworks and Processes	Strongly aligned. AHAW uses standardized EFSA methodologies for risk assessment and evaluation, ensuring scientific rigor.
Multidisciplinary Expert Composition	Moderately aligned. The panel comprises diverse veterinary-related experts but could consider broader representation from social sciences, economics, or environmental health.

WOAH Aquatic Animal Health Standards Commission (20–22)

Evaluation Area	Assessment Summary
Clarity of Mandate and Membership	Strongly aligned. The Commission’s mandate is clearly defined within the WOAHA framework, focusing on the development and maintenance of international aquatic animal health standards. Its role in standard-setting is transparently outlined and periodically reviewed in coordination with WOAHA Members. Members are elected for fixed terms and serve in their individual capacity, as defined in WOAHA’s rules and confidentiality declarations.
Independence and Autonomy	Moderately aligned. The Commission operates under WOAHA’s organizational oversight, but confidentiality declarations and conflict-of-interest policies help safeguard scientific independence.
Accountability and Transparency	Moderately to strongly aligned. The Commission publishes meeting reports, which enhance transparency by summarizing agenda items, stakeholder input, and decisions. However, these reports do not disclose the details of internal deliberations, individual expert views, or how stakeholder comments influence decisions. As a result, while external visibility is supported, internal process transparency remains partial.
Diversity and Inclusivity	Moderately aligned. Geographic diversity is supported through elections, but gender, interdisciplinary, and LMIC inclusion are not formally tracked or promoted. Currently the chair of the Commission is a woman from Latin America.
Responsiveness and Effectiveness	Moderately aligned. The Commission regularly updates standards and responds to emerging aquatic animal health threats, fulfilling its technical mission effectively. However, the speed of response is constrained by the formal WOAHA standard-setting processes.
Evidence-Assessment Frameworks and Processes	Strongly aligned. Uses science-based methodologies for standard setting, informed by expert consensus and stakeholder comments.
Multidisciplinary Expert Composition	Moderately aligned. Experts are drawn from aquatic animal health fields, but structured inclusion of professionals from social sciences, environmental sciences, or economics is not readily evident.

Global Preparedness Monitoring Board (24–27)

Evaluation Area	Preliminary Assessment Summary
Clarity of Mandate and Membership	Strongly aligned. GPMB’s mandate is clearly defined; to monitor global preparedness for health emergencies. Its membership is composed of internationally recognized experts from diverse disciplines and regions.
Independence and Autonomy	Moderately aligned. While co-convened by WHO and the World Bank, the Board operates independently and publishes assessments without institutional approval, though some influence may persist.
Accountability and Transparency	Strongly aligned. Annual public reports and a dedicated monitoring framework provide clear insights into global preparedness, contributing to institutional accountability.
Diversity and Inclusivity	Strongly aligned. Board members represent a broad geographic, gender, and sectoral diversity, reinforcing inclusivity and legitimacy.
Responsiveness and Effectiveness	Strongly aligned. GPMB has issued timely, forward-looking reports, including warnings prior to COVID-19, and continuously advocates for preparedness investments.
Evidence-Assessment Frameworks and Processes	Strongly aligned. The GPMB Monitoring Framework enables structured, evidence-based assessments of preparedness and response capacity.
Multidisciplinary Expert Composition	Strongly aligned. The Board includes experts from public health, human rights, law, economics, veterinary medicine, and gender equity, reflecting broad disciplinary integration.

The Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) (28,29)

Evaluation Area	Preliminary Assessment Summary
Clarity of Mandate and Membership	Strongly aligned. GF-TADs has a clearly defined mandate and governance structure. It includes the Management Committee, Global Steering Committee, Regional Steering Committees, and corresponding Secretariats, ensuring alignment between global and regional action.
Independence and Autonomy	Moderately aligned. While hosted by FAO and WOAHA, GF-TADs maintains its own governance mechanisms. However, decision-making might be influenced by its parent organizations.
Accountability and Transparency	Moderately aligned. Strategic documents and governance frameworks are available. However, detailed records of internal decision-making, evaluations, and operational reporting are limited.
Diversity and Inclusivity	Strongly aligned. The global and regional governance bodies include representatives from across regions and organizations, supporting broad stakeholder inclusion.
Responsiveness and Effectiveness	Moderately aligned. Strategies are in place and tailored at regional levels for priority diseases. Implementation effectiveness varies by context and region.
Evidence-Assessment Frameworks and Processes	Moderately aligned. GF-TADs uses evidence to shape its action plans and priorities, but detailed methodological guidance is not readily available in public documents.
Multidisciplinary Expert Composition	Moderately aligned. Experts in veterinary and animal health domains are central, but integration of broader disciplines (e.g., social sciences, economics, environment) appears limited.

The One Health High-Level Expert Panel (OHHLEP) (30–33)

Evaluation Area	Assessment Summary
Clarity of Mandate and Membership	Strongly aligned. OHHLEP has a clear mandate from the Quadripartite (FAO, UNEP, WHO, WOAHA) to advise on One Health policy. Members are appointed via an open process and serve in their personal capacities.
Independence and Autonomy	Moderately aligned. OHHLEP is formally independent but operates under the auspices of the Quadripartite, which may influence priorities. Members' personal-capacity roles help support autonomy.
Accountability and Transparency	Moderately aligned. OHHLEP publishes reports, but detailed deliberations and decision-making records are not fully disclosed.
Diversity and Inclusivity	Strongly aligned. The panel is gender-balanced and geographically diverse, with interdisciplinary representation.
Responsiveness and Effectiveness	Strongly aligned. The panel provides timely strategic input and has guided the One Health Joint Plan of Action and related frameworks.
Evidence-Assessment Frameworks and Processes	Moderately aligned. Frameworks like the One Health Theory of Change guide work, but specific methodologies for evidence assessment are not fully transparent.
Multidisciplinary Expert Composition	Strongly aligned. Members span disciplines including health, environment, biodiversity, economics, and social science, reflecting a comprehensive One Health perspective.

Codex Alimentarius (CODEX) (35–39)

Evaluation Area	Assessment Summary
Clarity of Mandate and Membership	Strongly aligned. CODEX has a clear mandate to develop international food standards. Membership includes nearly all FAO and WHO member countries and one organization (EU).
Independence and Autonomy	Moderately aligned. While CODEX is institutionally linked to FAO and WHO, it has its own procedures and decision-making structures.
Accountability and Transparency	Strongly aligned. Meetings, decisions, and procedural guidance are public. Reports and standards are accessible online.
Diversity and Inclusivity	Strongly aligned. CODEX involves a highly diverse membership base and includes observer organizations from around the world.
Responsiveness and Effectiveness	Strongly aligned. The Commission updates standards regularly to address emerging food safety risks and evolving science.
Evidence-Assessment Frameworks and Processes	Strongly aligned. CODEX bases its decisions on input from expert scientific bodies like JECFA and follows formal risk analysis protocols.
Multidisciplinary Expert Composition	Strongly aligned. CODEX integrates expertise from toxicology, food science, nutrition, economics, and public health.

Annex 2. List of panels screened

Panel/Committee Name	Description	Link
The Panel on Animal Health and Welfare (AHAW)	Gives scientific advice on all aspects of animal diseases and animal welfare; panel of the European Food Safety Authority (EFSA).	https://www.efsa.europa.eu/en/science/scientific-committee-and-panels/ahaw#:~:text=The%20Panel%20on%20Animal%20Health,stunning%20and%20killing%20of%20animals
Board on Animal Health Sciences, Conservation, and Research (BAHSCR)	Provides science-based guidance on research with animals to support the health of both animals and humans. Part of the National Academies of the US. In 2013, BAHSCR was named a collaborating centre with the World Organization for Animal Health, providing an avenue for the board to extend its expertise to animal health communities worldwide. The BAHSCR Roundtable brings together practitioners in government, industry, nonprofit organizations, and academia to select studies, workshops, and ongoing activities of wide interest to the animal research community.	https://www.nationalacademies.org/bahscr/about
European Commission Scientific Committee on Animal Health and Animal Welfare (SCAHAW)	Came to an end with the establishment of the Scientific Panels of the EFSA. Established in 1997 to advise the Commission on questions relating to animal health and welfare. Two sub-committees, one for Animal health and the other dealing with animal welfare. The Animal health sub-committee aimed to deal with “scientific and technical questions concerning all aspects of animal health, hygiene, animal diseases and therapies”.	https://food.ec.europa.eu/document/download/6973ebde-7cd8-4461-aa04-00525fd32285_en?filename=sci-com_scah_out94_en.pdf
The One Health High-Level Expert Panel (OHHLEP)	The One Health High-Level Expert Panel (OHHLEP) is an interdisciplinary initiative created by FAO, the United Nations Environment Programme (UNEP), the World Health Organization (WHO) and the World Organisation for Animal Health (WOAH) to improve our understanding of how diseases with the potential to trigger pandemics, emerge and spread. It provides guidance on the analysis of scientific evidence on the links between human, animal and ecosystem health.	New international expert panel to address the emergence and spread of zoonotic diseases
American Association for Laboratory Animal Science (AALAS)	Formerly known as the Professional Standards Committee of the Animal Care Panel (ACP). Promotes the humane treatment of animals in science through a voluntary accreditation program.	https://www.aaalac.org/about/history/long-version/
Institutional Animal Care and Use Committee (IACUC)	Established by USDA regulation in the mid 1980s; has evolved as the primary vehicle of animal welfare oversight within research institutions in the US.	https://msmr.org/chapter-one-n/history-of-iacucs-in-the-u-s/ https://www.nps.gov/orgs/1103/iacuc.htm

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Panel/Committee Name	Description	Link
WOAH The Scientific Commission for Animal Diseases	Founded in 1946; assists in identifying the most appropriate strategies and measures for disease prevention and control.	https://www.woah.org/en/what-we-do/standards/standard-setting-process/scientific-commission/#:~:text=Links-,Founded%20in%201946%20and%20composed%20of%20six%20members%2C%20the%20Scientific,for%20a%20three%2Dyear%20term
WOAH Aquatic Animal Health Standards Commission	The Aquatic Animal Health Standards Commission (the Aquatic Animals Commission), created in 1960, is responsible for ensuring that the Aquatic Animal Health Code (the Aquatic Code) and Manual of Diagnostic Tests for Aquatic Animals (the Aquatic Manual) reflect current scientific information.	Aquatic Animal Health Standards Commission – WOA – World Organisation for Animal Health
WOAH Biological Standards Commission	The WOA Biological Standards Commission (BSC), composed of six elected members, is concerned with developing internationally agreed standards for laboratory diagnostic tests and vaccines for WOA-listed animal diseases of mammals, birds and bees.	Biological Standards Commission – WOA – World Organisation for Animal Health
WOAH Terrestrial Animal Health Standards Commission	The Terrestrial Animal Health Standards Commission (the Code Commission), created in 1960, is responsible for overseeing developments of the Terrestrial Animal Health Code (the Terrestrial Code) and ensuring it reflects the latest current scientific development.	Terrestrial Animal Health Standards Commission – WOA – World Organisation for Animal Health
WOAH Working Group on Antimicrobial Resistance (AMR)	The Working Group on Antimicrobial Resistance (hereafter, the “WG AMR”) was established by the Director General following Resolution No. 14 adopted at the 87th WOA General Session, in 2019 following the OIE 2nd Global Conference on Antimicrobial Resistance; the WG AMR replaced the ad-hoc group on Antimicrobial Resistance to ensure the sustainability of WOA Strategy on Antimicrobial Resistance and Prudent Use. The WG AMR is expected to maintain a global perspective and foresight on antimicrobial resistance in animal health and the interface with human health, food production and the environment, under a One Health approach.	Working Groups – WOA – World Organisation for Animal Health
WOAH Working Group on Wildlife	Founded in 1994, this Working Group informs and advises the WOA on all health problems relating to wild animals, whether in the wild or in captivity. It has prepared recommendations and oversees numerous scientific publications on the surveillance and control of the most important specific wildlife diseases. The Working Group comprises world-leading scientific experts in their subject areas.	Working Groups – WOA – World Organisation for Animal Health
WOAH ad hoc Groups	Ad Hoc groups on various animal health issues such as Foot and Mouth Disease.	https://www.woah.org/en/?s=&_search=ad%20hoc%20group
Association of Zoos & Aquariums (AZA) Animal Health Committee	Advises the AZA Board of Directors on matters related to animal health and their impacts on the zoo and aquarium industry; provides subject matter expertise on animal health to AZA programs and initiatives.	https://www.aza.org/animal_health_committee

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Panel/Committee Name	Description	Link
NIH Office of Animal Care and Use (OACU) Animal Research Advisory Committee (ARAC)	The OACU ensures NIH research programs and facilities for animal care and use follow federal regulatory requirements and standards, and maintain full accreditation with AAALAC, International.	https://oacu.oir.nih.gov/animal-research-advisory-committee-arac-guidelines
Calls for a new Independent Panel on Antimicrobial Resistance	Endorsed at the UN HLM on AMR; should have the power to challenge the agencies that create it and address both human and animal health factors driving drug-resistant pathogens.	https://healthpolicy-watch.news/as-global-health-ministers-meet-in-jeddah-calls-for-strong-amr-science-panel-with-authority-to-challenge-sponsors/
Croatian Food Agency (HAH) Panel on Animal health and welfare	Provides independent scientific opinions and advice on all aspects of animal diseases and animal welfare.	https://www.hah.hr/en/o-hah-u/znanstveni-odbori/odbor-za-zdravlje-i-dobrobit-zivotinja/
Tyson's Independent Farm Animal Well-being Advisory Panel	Advises the Tyson Farm Check Program, a comprehensive initiative designed to ensure responsible care and overall well-being of farm animals.	Tyson Forms Independent Animal Welfare Panel
Council of Canadian Academies (CCA) Expert Panel on Approaches to Animal Health Risk Assessment	To assess the state and comprehensiveness of risk assessment techniques in animal health science.	https://cca-reports.ca/wp-content/uploads/2018/10/Healthy-Animals-Healthy-Canada-Full-Report-EN.pdf
2011 National Program 103 Animal Health Panel USA	<p>Vision: The vision for ARS animal health research is to be a worldwide leader that delivers effective solutions to prevent and control animal diseases that impact agriculture and public health.</p> <p>Mission: The mission of the Animal Health National Program (NP 103) is to conduct basic and applied research on selected diseases of economic importance to the U.S. livestock and poultry industries. The goals of the research mission are to produce knowledge and technology to reduce economic losses from infectious, genetic, and metabolic diseases.</p>	https://www.ars.usda.gov/ARSUserFiles/np103/AnnualReports/NP%20103%20Annual%20Report%202011%20Final.pdf
FDA Veterinary Medicine Advisory Committee	Terminated in 2013; tasked with “evaluating available data concerning safety and effectiveness of marketed and investigational new animal drugs, feeds and devices for use in the treatment and prevention of animal diseases and increased animal production”.	https://www.dvm360.com/view/veterinary-medicine-advisory-committee-disbanded-fda

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Panel/Committee Name	Description	Link
The European Commission for the Control of Foot-and-Mouth Disease (EuFMD)	The Commission works with Member Nations on their preparedness, with European neighbours to put in place sustainable control programmes, and to support and promote the global strategy for progressive control of Foot-and-Mouth Disease through close partnership with DG-SANTE of the European Commission, with the Food and Agriculture Organization of the United Nations and the World Organization of Animal Health. A written constitution governs the activities of the Commission and the obligations of the Member Nations. The basic texts include the Constitution, the Rules of Procedure, and the Financial Regulations.	The European Commission for the Control of Foot-and-Mouth Disease (EuFMD) Food and Agriculture Organization of the United Nations
Lancet One Health Commission	The ambition of The Lancet One Health Commission is to offer a recalibrated understanding of the ways in which contemporary global health challenges are implicated within the complex interconnectedness of humans, animals, and our shared environment, and to provide an approach for harnessing this knowledge to ensure a sustainably healthy future. The Commission's work will explicate the significance of a One Health approach for policy by engaging transdisciplinary expertise and perspectives from both the public and private sectors. Attention will be directed to infectious diseases, AMR, and non-communicable diseases, the latter of which have often been left out of the discourse on One Health.	The Lancet One Health Commission – Institute of Health and Society
Global Preparedness and Monitoring Board	The Global Preparedness Monitoring Board (GPMB) is an independent monitoring and accountability body to ensure preparedness for global health crises. Co-convened by the Director-General of the World Health Organization and the President of the World Bank, the GPMB is comprised of globally recognized leaders and experts from a wide range of sectors, including global health, veterinary epidemiology, environment, human rights, economics, law, gender, and development. It is tasked with providing an independent and comprehensive appraisal for policy makers and the world about progress towards increased preparedness and response capacity for disease outbreaks and other emergencies with health consequences. In short, the work of the GPMB is to chart a roadmap for a safer world.	Home
GF-TADs Global and Regional governance groups	The Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) was launched on May 24, 2004 GF-TADs is a joint initiative of FAO and WOAHA, with the expected participation of WHO for the zoonoses, to achieve the prevention, detection and control of transboundary animal diseases (TADs) and in particular to address their original and global dimensions. The initiative combines the strengths of both international organizations to achieve agreed common objectives.	Home
United Against Rabies Forum	An inclusive platform bringing together international organisations, country and regional authorities, development partners, private sector partners, academic experts and NGOs.	United Against Rabies Forum United Against Rabies

(Continued)

Panel/Committee Name	Description	Link
PPR Global Research and Expertise Meeting (GREN)	The PPR Global Research and Expertise Network (PPR-GREN) is an inclusive and dynamic network of PPR experts and researchers. It is open to individuals and institutions to join, on a voluntary basis, to direct their expertise towards achieving Global Freedom from PPR by 2030.	PPR GREN Peste des petits ruminants Food and Agriculture Organization of the United Nations
STAR-IDAZ International Research Consortium (IRC)	STAR-IDAZ IRC is a global network of research funders and program owners dedicated to coordinating international research efforts in animal health. Established in 2016, STAR-IDAZ IRC works towards developing innovative strategies and tools for the control of priority animal diseases and issues at a global level.	Home STAR-IDAZ
OFFLU	<p>Offlu's vision: The animal health community will provide early recognition and characterisation of emerging influenza viral strains in animal populations, and effective management of known infections, thereby better managing the risk to human health and supporting global food security, animal health and welfare, and other community benefits derived from domestic animals and wildlife.</p> <p>Offlu's objectives: To share and offer technical advice, training and veterinary expertise to international organisations and Member Countries to aid in the prevention, diagnosis, surveillance and control of animal influenza.</p> <p>To exchange scientific data and biological materials (including virus strains) within the network, to analyse such data, and to share such information with the wider scientific community.</p> <p>To collaborate with the WHO on issues relating to the animal-human interface, including pandemic preparedness for early preparation of human vaccine.</p> <p>To highlight influenza surveillance and research needs, promote their development and co-ordination.</p>	Home – Offlu
Codex Alimentarius (various committees)	General subject committees develop General Standards, Guidelines and Codes of Practice which are applied transversely to all products and product categories. These texts deal with hygienic practice, labelling, additives, inspection & certification, nutrition and residues of veterinary drugs and pesticides.	Home CODEXALIMENTARIUS FAO-WHO