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Wildlife health surveillance: gaps, needs and opportunities

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Summary

Disease emergence represents a global threat to public health, economy and biological conservation. Most emerging zoonotic diseases have an animal origin, most commonly from wildlife. To prevent their spread and to support the implementation of control measures, disease surveillance and reporting systems are needed, and due to globalisation, these activities should be carried out at the global level. To define the main gaps affecting the performance of wildlife health surveillance and reporting systems globally, the authors analysed data from a questionnaire sent to National Focal Points of the World Organisation for Animal Health that inquired on structure and limits of wildlife surveillance and reporting systems in their territories. Responses from 103 Members, covering all areas of the globe, revealed that 54.4% have a wildlife disease surveillance programme and 66% have implemented a strategy to manage disease spread. The lack of dedicated budget affected the possibility of outbreak investigations, sample collection and diagnostic testing. Although most Members maintain records relating to wildlife mortality or morbidity events in centralised databases, data analysis and disease risk assessment are reported as priority needs. The authors' evaluation of surveillance capacity found an overall low level, with marked variability among Members that was not restricted to a specific geographical area. Increased wildlife disease surveillance globally would help in understanding and managing risks to animal and public health. Moreover, consideration of the influence of socio-economic, cultural and biodiversity aspects could improve disease surveillance under a One Health approach.

Keywords

Data quality – Global survey – One Health – Wildlife Health Framework – Wildlife health surveillance.

Introduction and objective

About 60% of emerging infectious diseases are zoonotic, and of those that have emerged over the past two decades approximatively 72% have a wildlife source [1, 2]. Wildlife diseases are a growing concern at the global level, not only because of the threat they pose for the health of wild and domestic animal populations in terms of economic losses, food insecurity and biodiversity conservation, but also because of their potential effect on public health [3]. This is especially true when considering the increasing global, regional and sub-regional movement of wild animals and their products. As examples, between 1996 and 2018 the global market for reptile leather for fashion rose from US$ 140 million to US$ 600 million, and the fish market trade rose from US$ 40 billion to US$ 180 billion [4]. The legal and illegal trade of wildlife was estimated to be worth around US$ 6 billion per year in 2005 [5], and in 2022 illicit wildlife trafficking by itself was estimated to be between US$ 7.8 billion and US$ 10 billion per year globally [6]. It is noteworthy that

between 2000 and 2006, in the United States of America (USA) alone, approximately 1.5 billion live wild animals were legally imported into the country and that an average of over 25 million kilograms of dead wildlife and wildlife products enter the USA each year [7].

Anthropogenic activities affecting climatic conditions and the environment, including habitat destruction and fragmentation, which increase the interactions at the human–livestock–wildlife interface, have deeply modified several pathogen dynamics with an increasing risk of disease emergence and re-emergence [8, 9]. A review analysing mass mortality events in wildlife highlighted that 26.3% of the events were due to infectious diseases [10]. This finding indicates a growing need for effective and reliable surveillance and reporting systems for appropriate prevention, situational awareness and assessment of the effectiveness of management actions to prevent wildlife health events. Early detection and rapid response are critical when new health threats emerge and grow. Both early detection and timely sharing of information are key to preventing and controlling zoonotic disease spread and to avoiding long-term economic, social and environmental costs [11].

Wildlife disease surveillance provides important information that can enable organisations to take action to control and prevent these diseases in wildlife populations. In turn, these disease management actions contribute to enhanced wildlife management/conservation and provide information to protect human and livestock health. In the context of animal health, wildlife disease surveillance may provide valuable information on domestic and wild animal morbidity and mortality, identify changes in patterns of disease occurrence over time, and assist in early detection of disease outbreaks, including those linked to emerging diseases. Many of the pathogens on the World Organisation for Animal Health (WOAH, founded as OIE) list of reported diseases can infect and be maintained for long or short periods of time in wild animals. Because there is a wide array of species of wild animals, risks of multi-directional disease transmission vary by region or area, dictated by the species and types of livestock interfaces present. Thus, national wildlife disease surveillance programmes are crucial for understanding local risks to animal health and potential zoonotic disease transmission and for preserving wildlife.

There are multiple challenges involved in sharing animal health findings from wildlife collected at the national level with other coun-tries, including high variability amongst countries in their capacity to conduct wildlife surveillance, ability to collect and share information, and capacity to support international reporting [11]. The World Animal Health Information System (WAHIS) is the international reference system that collects and shares data on animal health gathered by the Veterinary Services from WOAH Members and non-Member countries and territories on listed diseases in domestic animals and wildlife, as well as on emerging diseases and zoonoses. All this information can be publicly accessed and visualised. Information is collected on 117 WOAH-listed diseases (https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-diseases) plus emerging diseases in domestic animals and wildlife and on 53 non-WOAH listed diseases of specific importance for wildlife. The role and mission of WOAH in collecting wildlife health information has been reinforced by the adoption of the WOAH Wildlife Health Framework (https://www.woah.org/fileadmin/Home/eng/Internationa_Standard_Setting/docs/pdf/WGWildlife/A_Wildlifehealth_conceptnote.pdf) in May 2021 by the WOAH 88th General Session of the World Assembly of Delegates. The Framework identifies two main priorities:

1) to improve WOAH Members' ability to manage the risk of pathogen emergence in wildlife and transmission at the human–animal–ecosystem interface, whilst taking into account the protection of wildlife;
2) to support WOAH Members to improve surveillance systems, early detection, notification and management of wildlife diseases.

These factors place WOAH and its WAHIS system in a unique position to provide an international reference database on wildlife health.

In 2021, the WOAH Collaborating Centre for Research, Diagnosis and Surveillance of Wildlife Pathogens located in Madison, USA, developed, in collaboration with WOAH, a questionnaire to gather data and information from WOAH National Focal Points (NFPs) for Wildlife. The purpose of this questionnaire was to gain knowledge of in-country governance in charge of wildlife disease surveillance systems to identify gaps and needs to improve global surveillance, as well as to better assess the quality of the wildlife disease data reported to WOAH through the WAHIS system.

The purpose of this paper is to use the results of the questionnaire to identify the global gaps, needs and opportunities of wildlife health data collection and sharing, and to inform future capacity building activities for WOAH Members across the five WOAH regions.

Materials and methods

World Organisation for Animal Health questionnaire

The Wildlife Disease Surveillance Survey (WDSS) questionnaire was composed of 7 sections with a total of 54 questions designed to collect information on wildlife disease surveillance activities in countries. The following five sections were considered for this paper:

1) Background information
2) Partner wildlife disease reporting network
3) Wildlife disease diagnostics
4) Wildlife disease information management
5) Wildlife disease management.

Sections 6 and 7 were not included as they pertained specifically to the WAHIS system (Section 6) or legal aspects of surveillance (Section 7). The full questionnaire is available online as supplementary material at https://www.woah.org/app/uploads/2023/03/survey-report-wildlife-2023.pdf.

Some of the questions were only available to respondents depending on answers to a preceding question; therefore, not all respondents answered the same number of questions.

The questionnaire, available in the three WOAH official languages (English, French and Spanish), was distributed by WOAH to 182 WOAH Members' NFPs for Wildlife using the Microsoft Forms platform in September 2021, allowing a one-month period to respond to the questionnaire. Reminders were sent out to encourage participation.

Study area

The study area includes 182 WOAH Members, which are grouped into five regions to express and address specific problems faced by Members in these different areas of the world. The list of regions is provided in Figure 1 and includes:

- Africa
- Americas
- Asia and the Pacific
- Europe
- Middle East.

Although a Member can belong to more than one WOAH region from an administrative point of view, for the objective of this paper each Member was assigned to only one region.

Analysis of the questionnaire

For the purpose of this paper, 18 of the 54 questions, all linked to in-country surveillance activities referring to wildlife diseases, were selected to describe and analyse the following aspects:

1) **Who** oversees wildlife disease surveillance and monitoring, and how are the networks composed in the different countries, from field sampling to data analysis?
2) **How** are surveillance and monitoring systems organised (planning/testing/number of samples/priority diseases)?
3) **Diagnostic capacity** (from collection of samples to diagnosis): what is WOAH Members' capacity in term of pathogen identification?
4) **Management** and response to wildlife disease events (from the field to data storage and follow-up)
5) **Categorisation** of countries according to their surveillance capacity. For this categorisation, 11 questions were selected to evaluate and score the surveillance capabilities of each Member. The selected questions reflected the country's capacity to perform the various steps to accomplish disease surveillance. Each

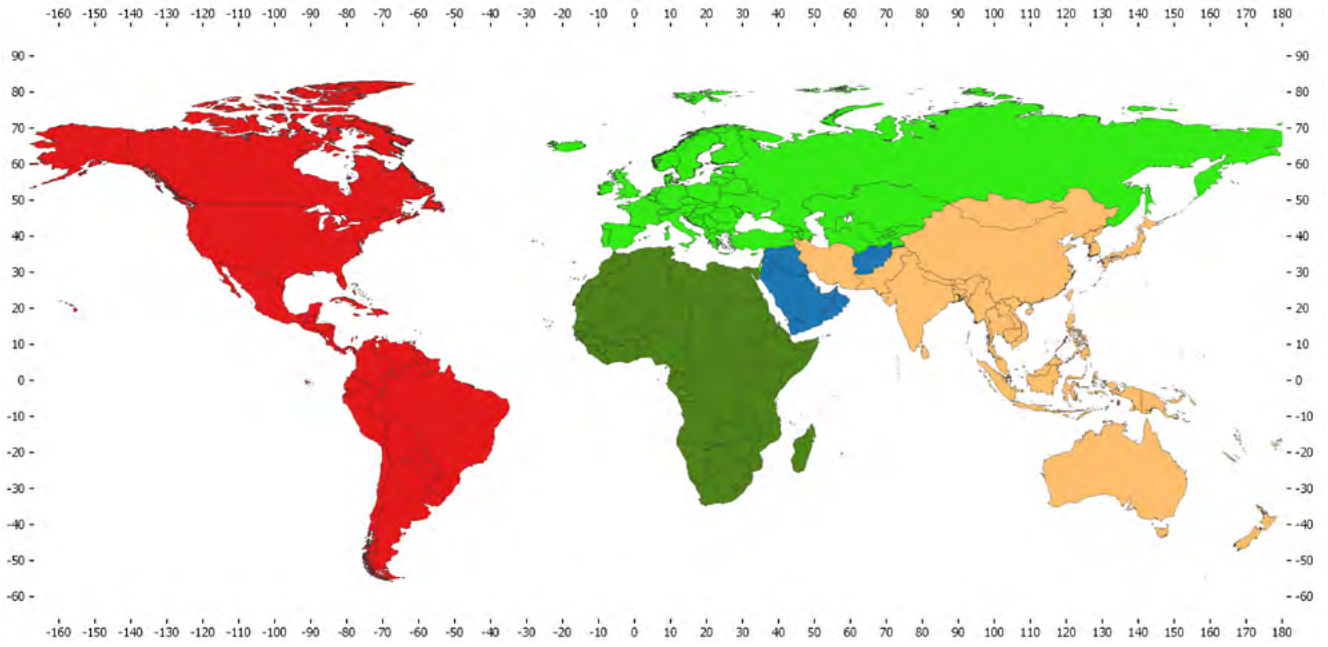


Figure 1

World Organisation for Animal Health Members grouped by region

Africa (dark green), Americas (red), Asia and the Pacific (orange), Europe (light green) and Middle East (blue)

question was assigned a qualification of 0 or 1, with 0 being absence and 1 being presence of disease surveillance capacity. The final score for each country was therefore out of a maximum of 11 points.

All the responses were exported into and processed using Microsoft Excel and analysed using R, version 3.2 [12], to obtain a descriptive distribution of frequencies for the questions. Visualisation of data and data manipulation were carried out using the following packages: ggpubr [13], ggplot2 [14], VennDiagram [15] and tidyverse [16].

Results

Of the 182 WOAH Members, 103 submitted the WDSS, for a response rate of 56.6% (Figure 2). All responses were provided by WOAH NFPs, and the time required to complete the survey averaged 3.7 hours (around 223 minutes).

1) **Who** oversees wildlife disease surveillance and monitoring, and how are the networks composed in the different countries, from field sampling to data analysis?

The Veterinary Services were the national authority solely in charge of wildlife health management in 49.5% of the responding countries. However, 87.8% of respondents indicated that Veterinary Services jointly oversee wildlife health events in collaboration with the Wildlife Services, Protected Areas and Environmental Services. In addition, 12.1% of respondents stated that wildlife disease management is performed by other authorities, including the Environmental Services (which is in charge for 4.04% of respondents), the Wildlife Services (2.02%) and different combinations of National Parks and Protected Areas with the Environmental and Wildlife Services (6.06%) (Figure 3).

2) **How** are surveillance and monitoring systems organised (planning/testing/number of samples/priority diseases)?

The majority (54.4%) of the respondents indicated having a national wildlife disease surveillance programme in place. Of these, 94.6% included investigation of wildlife morbidity and mortality events (general surveillance, also called passive surveillance), whilst 86% included testing of opportunistically collected and/or apparently healthy wildlife for specific diseases (targeted surveillance, also called active surveillance) and 71.4% collected information on wildlife intended for commercial or non-commercial use or consumption (Figure 4).

The main source of information about wildlife diseases used at the national level came from the national environmental agency for 39.3% of the respondents and from the national agriculture agency for 32.1%. Academia was also a non-negligible source of information, mentioned by 7.1% of the respondents.

The three most monitored priority wildlife diseases were avian influenza (17.3%), African swine fever (11.1%) and rabies (11.1%). Of the diseases monitored, 90% have zoonotic potential or can affect domestic animals. The diseases mentioned that affect only wildlife were chronic wasting disease, white-nose syndrome and European brown hare syndrome, with 0.4% of respondents listing one of these diseases.

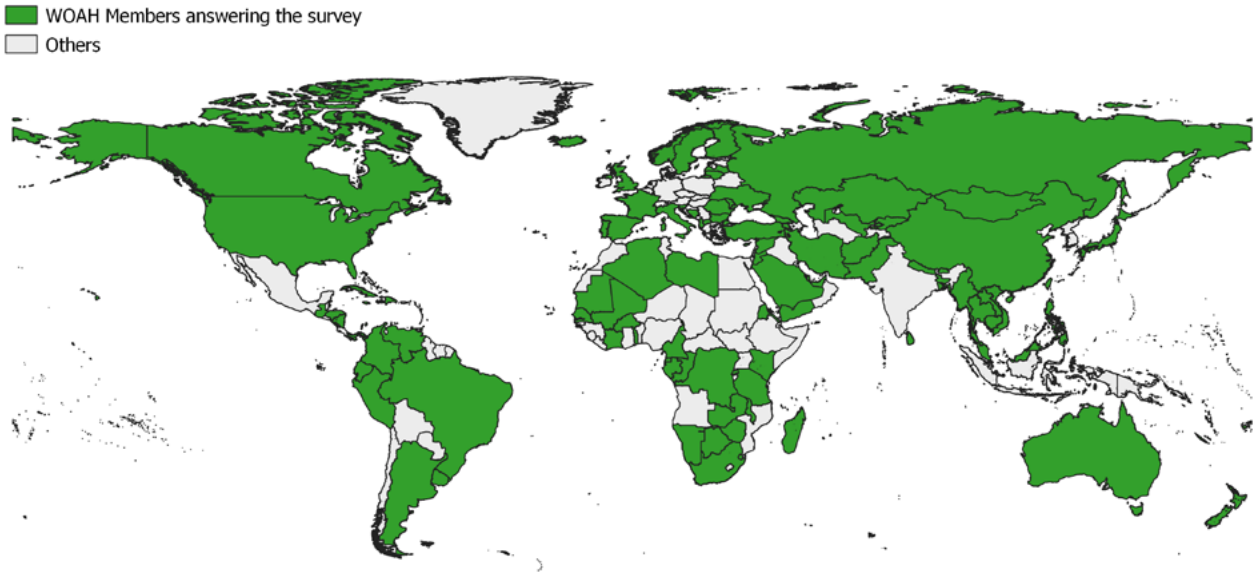


Figure 2

World Organisation for Animal Health (WOAH) Members that responded to the in-country Wildlife Disease Surveillance Survey (WDSS)

Countries not shaded in green include Members that did not respond to the WDSS and non-Members

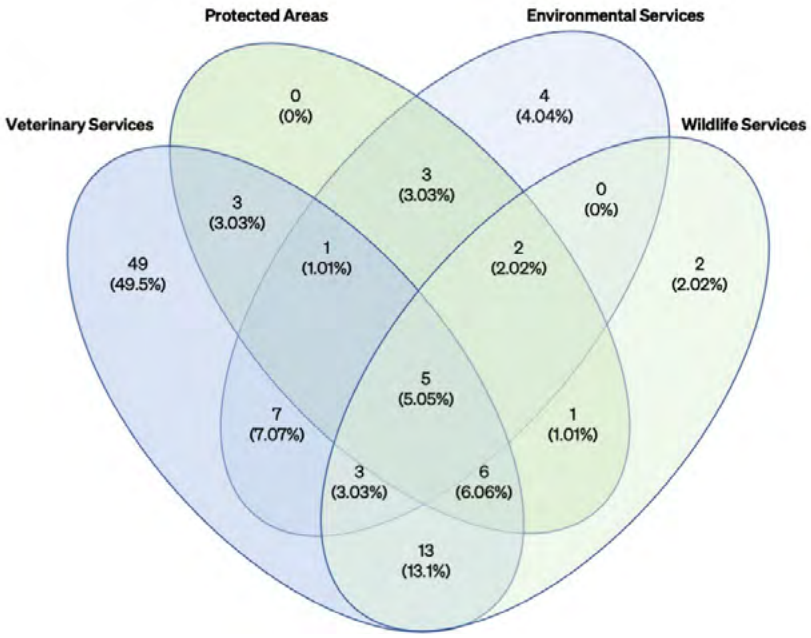


Figure 3

National authorities mentioned by Members as overseeing wildlife health management

The most important need among the wildlife disease surveillance programmes mentioned by respondents was the ability to conduct outbreak investigation (41% of respondents). The second most important need was to improve ability to collect samples during outbreak investigations (16.8% of the respondents). The European region was the only one indicating that the greatest current need for wildlife disease surveillance programmes was increased data visualisation and geographic information system (GIS) applications. The most important needs for wildlife disease surveillance programmes, by region, are represented in Figure 5.

3) **Diagnostic capacity** (from collection of samples to diagnosis): what is WOAH Members' capacity in term of pathogen identification?

The majority of respondents (63.1%) indicated impediments when collecting, handling or transporting wildlife samples for diagnostic testing and/or in diagnostic testing itself; of these, 75% indicated that a lack of a dedicated budget was a very important impediment to collecting, handling or transporting wildlife samples for diagnostic testing.

Additional factors considered very important impediments to this activity included lack of proper equipment for the field (64%), access to carcasses or sick animals due to remote locations (62%) and shipping and storing samples (55%). When asked about impediments for the diagnostic testing on wildlife samples, respondents indicated that testing costs (68%), access to species-specific protocols (65%) and access to proper testing equipment and material (63%) were very important impediments.

4) **Management** and response to wildlife disease events (from the field to data storage and follow-up)

For the purpose of managing wildlife diseases, 62.1% of the respondents maintain records and data relating to wildlife mortality or morbidity events that have occurred in their territories. More than half (56.2%) of the respondents indicated that they use a centralised database as a method for maintaining at least a portion of their wildlife disease information. However, around a quarter (28.1%) still use paper records to manage at least a portion of their wildlife disease information. The main purpose of collecting and storing data is to provide wildlife disease information to the government at the national level and to use them as epidemiological data to respond to wildlife health events.

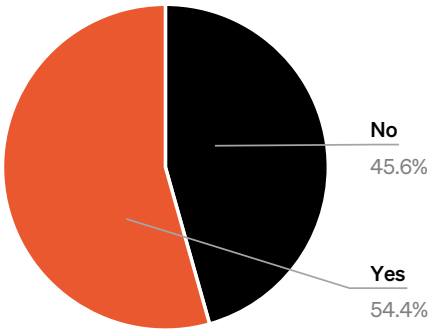
Two-thirds (66%) of the respondents indicated that they implemented a response to manage a wildlife health event. The principal management strategies focused on protecting domestic animals and humans and preventing the transmission of transboundary animal diseases and zoonoses to domestic animals or humans.

5) **Categorisation** of countries according to their surveillance capacity

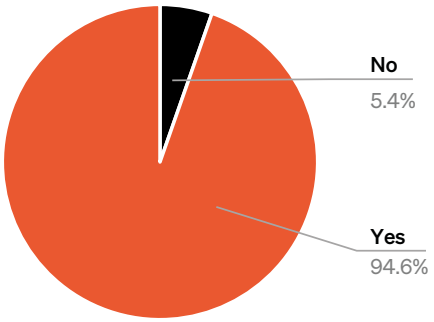
Using WOAH's definition of epidemiological surveillance, the countries were evaluated according to their responses and received a score (out of 11 points) reflecting their capacity to conduct wildlife epidemiological surveillance.

The overall average score for all regions was 5.3/11, with Asia and the Pacific and Europe earning the highest scores

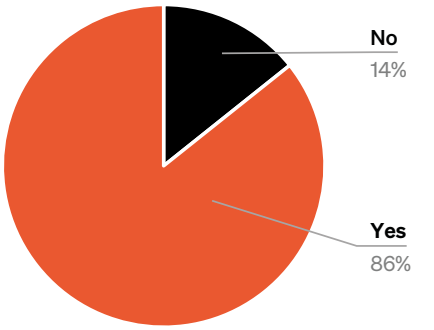
Respondent Members with a wildlife disease surveillance programme



General surveillance



Targeted surveillance



Monitoring of wildlife intended for commercial or non-commercial use or consumption

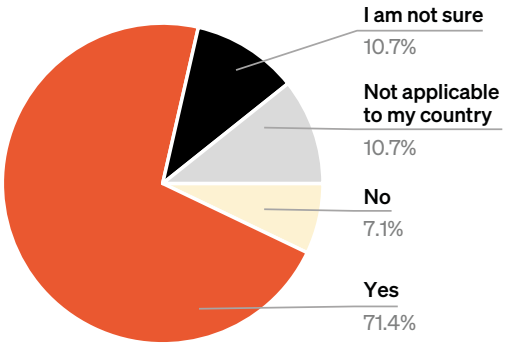


Figure 4

Percentage of National Focal Points for Wildlife that indicated whether they had a wildlife disease surveillance programme and for what purpose

The lower three pie charts show data only for those Members that answered 'yes' in the top pie chart

(both with 5.5/11); however, the variability of results from Europe was less polarised than in other regions. The region with the lowest average surveillance capacity was the Americas, with a score of 4.8/11. The Middle East, Africa, and Asia and the Pacific also represented particular cases, having higher heterogeneities with bimodal distribution of scores (Figure 6).

Discussion

In this study the authors analysed WDSS responses by WOAH Members in order to identify the main gaps in wildlife health surveillance at the country level. The Organisation received responses from 103 out of 182 Members. The survey highlighted high heterogeneity around the needs, capacity level and organisation of wildlife disease surveillance systems.

In addition to Veterinary Services, other agencies often are involved in surveillance, thus warranting good coordination for disease surveillance at the country level. Outbreak investigation is the most common wildlife disease surveillance activity reported by WOAH Members. The majority of the Members stated having some type of wildlife disease surveillance system and associated database, which provides a basis for further capacity building.

Wildlife diseases can cause economic losses and represent a threat to the health of wild and domestic animals, food security and biodiversity conservation [3]. Zoonotic disease in particular can represent a risk to humans, affecting public health investments [17]. To reduce these impacts, adequate wildlife health surveillance systems are needed for early detection of any potential health threat and to aid in a rapid response, such as applying proper control measures. Moreover, because the world is increasingly interconnected by global movement of humans, animals and animal products, surveillance systems at country level would ideally be optimised to reduce disease occurrence and spread both at the national and international level. It is in this context that WOAH established its Wildlife Health Framework and the WDSS was designed to identify gaps where global wildlife disease surveillance could be improved.

With a 56.6% response rate that included representatives from all five WOAH regions, the WDSS covered a homogeneous geographic distribution. However, the risk of emergence of zoonotic diseases from wildlife is concentrated in disease outbreak hotspot areas [18, 19], where epidemiological surveillance in wildlife may be overlooked. Some WOAH Members within these hotspots, such as Central and East Africa, Southeast Asia, and Central and South American countries did not participate in the survey and, therefore, left some important information gaps in the geographic coverage of responses that may be needed for a comprehensive picture of the current wildlife disease surveillance system landscape. In addition, only half of the respondents reported

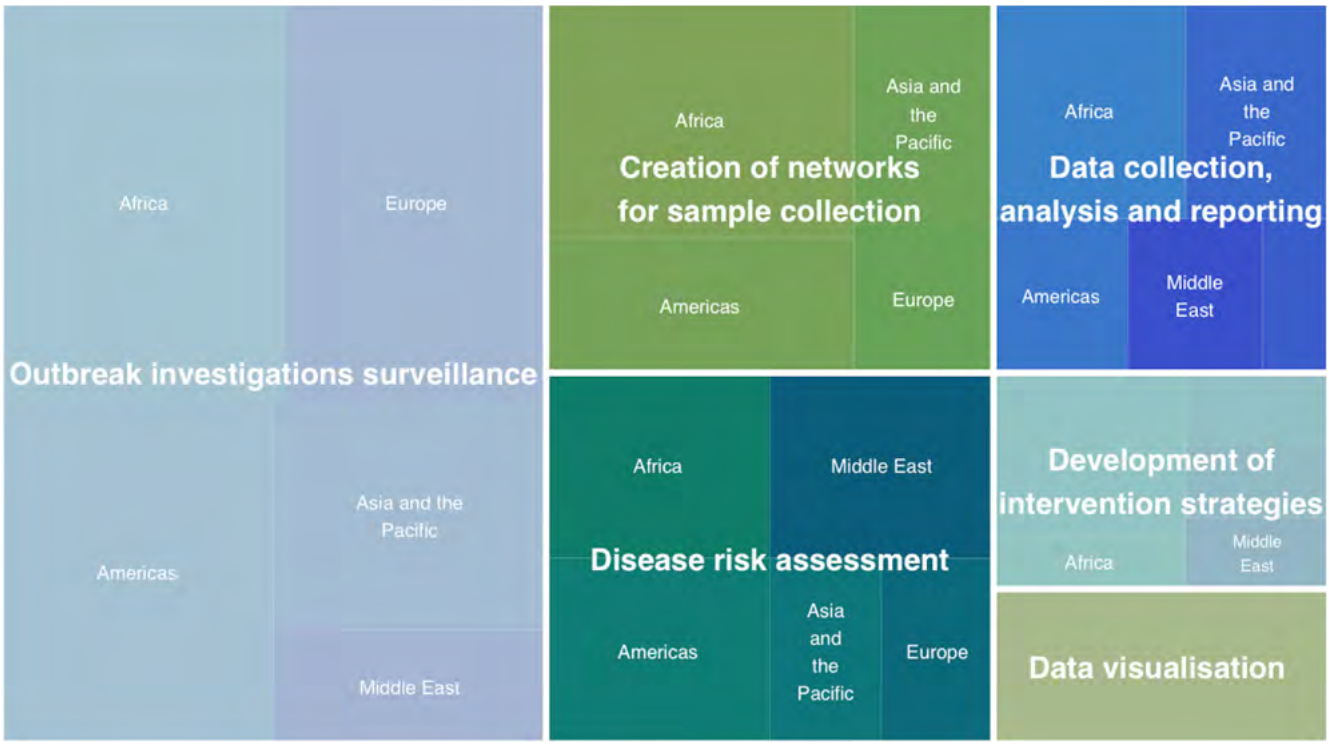


Figure 5

Rank of the most important needs of wildlife disease surveillance programmes, by World Organisation for Animal Health region

The size of each rectangle is proportional to the number of responses

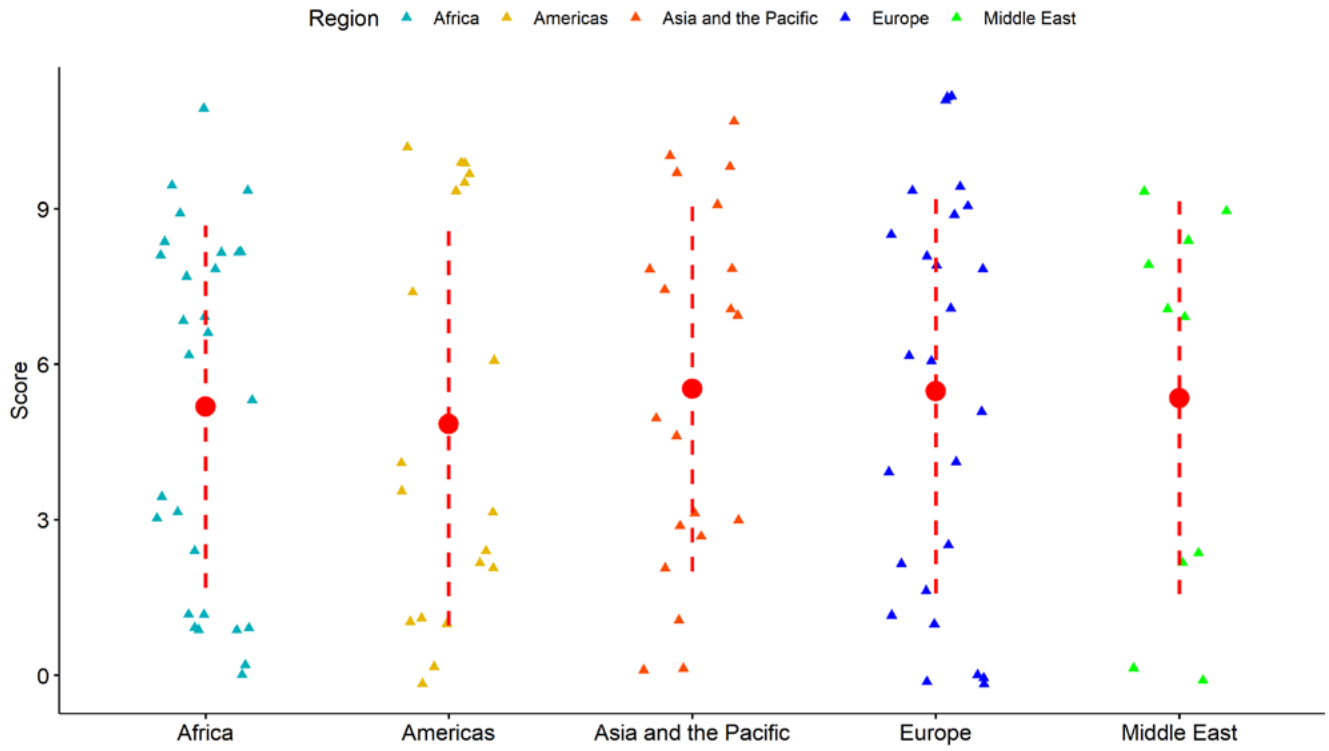


Figure 6

Distribution of country surveillance capacity scores, by region

Each triangle represents the score of wildlife surveillance capacity obtained by a Member. The red circle illustrates the average score for each region. Vertical dashes represent the standard deviation

having an ongoing wildlife disease surveillance programme, further highlighting the risk that hotspot areas may not be covered by surveillance.

From the survey results, Veterinary Services seem to be the main, but not the only, national authority in charge of the management of wildlife health. In fact, Veterinary Services interact with other authorities to collect relevant information (reported by 87.8% of all responding Members); this finding highlights the presence and importance of multi-sectoral collaboration in wildlife disease surveillance. For example, National Parks and Protected Areas are responsible for wildlife surveillance in 6% of the responding Members. For these Members, survey responses did not indicate whether surveillance plans existed at the national level, and there could be an important gap in surveillance coverage. Although surveillance in protected areas plays a fundamental role in biodiversity conservation, if surveillance is performed only in protected areas, the limited spatial coverage might miss some emerging diseases, such as those related to higher human densities. As the efficiency of wildlife health surveillance is influenced by both cross-sectoral and multidisciplinary actions, these collaborations should ideally be coupled with harmonisation of national responsibilities towards wildlife and health management [20, 21]. These collaborations would benefit from being monitored, encouraged and supported by central authorities.

Surveillance programmes mainly consisted of general and targeted surveillance [22], but some Members also performed surveillance for commercial and non-commercial use and consumption of wildlife. Despite the existence of these surveillance programmes, most of the Members highlighted budget limitations affecting their capacity to detect and respond to wildlife health events. The limitations in surveillance capacities due to lack of budget and/or investment in wildlife health programmes can result in greater spending by governments to address consequences of an outbreak or a spillover event. For example, white-nose syndrome in bats led to agricultural losses estimated at more than US$ 3.7 billion per year in the USA alone [23]. Therefore, wildlife disease surveillance using both passive and active surveillance for monitoring of wildlife health at a national level would help to address some of the gaps and needs identified in this questionnaire [18, 24, 25]. Prioritising the diseases to be surveilled would allow specific diseases to receive sufficient means to be handled effectively and avoid resource dispersion over too wide a range, which could result in inefficient surveillance [24].

Regarding data management from the field and laboratories, half of responding WOAH Members (56.2%) reported data storage in digital databases. Given the importance of national digital databases to improve the speed of analysis, more investment in data management would be useful. Moreover, Members mentioned the need for adequate data analysis, suggesting that training and capacity building would increase interpretation and analysis of the existing and future data. The development and validation of diagnostic tests for wildlife, and research on rapid tests for use in field, may be considered; the latter will preclude the need to ship and store samples. This would be useful for early identification of signals that warrant actions to prevent disease outbreaks and resilience to respond to new and ongoing epidemiological events [11, 24].

In general, the low capacity to conduct wildlife health surveillance, coupled with logistic constraints and limitations, resulted in a prioritisation by the Veterinary Services of surveillance towards diseases with recognised higher impacts on livestock or human health (such as avian influenza, African swine fever and rabies). An evidence-based examination of the relationship between zoonoses and emerging wildlife-related pathogens indicates that both represent risk factors for public health [26]. The results of the WDSS indicate that wildlife disease surveillance efforts are primarily directed towards known diseases of wildlife origin that could affect humans or livestock. Because international wildlife trade is also a contributing factor in zoonotic disease risk and represents a public health problem, trade should ideally be part of the surveillance programmes for wildlife diseases [27, 28]. Owing to the wide spectrum of possible diseases originating from wildlife, prioritisation of diseases according to the specific needs of the territory is required in order to allocate efforts [29]. Addressing wildlife diseases that affect domestic livestock and public health is important, but it is also important to pay attention to wildlife diseases for purposes related to biodiversity and conservation, which concomitantly affect disease emergence and spread [30].

Overall, heterogeneity was found among Members in their capacity to conduct wildlife disease surveillance. Clusters of countries with similar surveillance scores were detected in all regions, strongly reflecting differences within a single region (Figure 6). In Africa, Asia and the Pacific, the Americas and the Middle East, two clusters of responses were observed for surveillance capacity. A tendency for one cluster to have a high mark related to epidemiological surveillance and another to have a very low mark in this area might be explained by the fact that the questions were related to each other and caused an automatic deletion of the ensuing questions. The presence of clusters could also be related to the classification of countries within regions by income and/or political understanding of the needs and importance of wildlife health, which would affect investment in and allocation of budgets to wildlife health. The Middle East represents a unique case because although it has the most marked clustering, this region is influenced by the factor of low biodiversity. The European region has the least score variability; this region obtained the best average surveillance capacity score among all the regions and identified a need to build capacity of GIS programmes, indicating a better capacity to collect

data. Asia and the Pacific also obtained a high overall score; however, Asia and the Pacific Members were very polarised, with either very high or very low scores, highlighting a high heterogeneity. The overall score for capacity was low in all regions. Increased recognition of the value of wildlife disease surveillance by national governments could make wildlife disease surveillance systems more functional and sustainable. Systems could then be more integrated into comprehensive One Health surveillance and therefore contribute to better animal, human and environmental health under the One Health approach.

Finally, factors such as socio-economic, cultural, environmental and biodiversity variability among Members were not measured in this study; these have the potential to play an important role in the responses obtained. Future studies could explore the relationship between capacity of wildlife health surveillance and biodiversity hotspots. Moreover, several countries prioritise climate- and environment-sensitive diseases (notably echinococcosis, leptospirosis, yellow fever and Rift Valley fever), but climate is poorly represented in evaluations and plans [31].

The study identified a core foundation for wildlife disease surveillance at the national and international level; however, considerable variability in national-level capacity exists. Survey respondents identified several challenges in implementation of wildlife disease surveillance, especially the lack of adequate budget. Finally, given the complex nature of wildlife disease emergence and the multiple sectors and stakeholders involved, this study identified the importance of an interdisciplinary, or One Health, approach to disease surveillance.

Conclusions

Wildlife health surveillance is crucial to better understand and manage risks to animal and public health, yet wildlife health may be lacking in health security programmes. The challenges of disease surveillance in wildlife involve different factors that could be addressed in a multidirectional way through the One Health approach.

Taking into account the gaps, needs and opportunities identified through the WDSS, WOAH – under the strategic advice of its Working Group for Wildlife and through the implementation of its Wildlife Health programme, involvement of its Collaborating Centres' network for wildlife, solid international partnerships and integration with the One Health approach – is working to improve the health of wildlife, and therefore contribute to improving global health.

Respondents to the questionnaire identified the need for national-level capacity assessments to prioritise investments. The findings indicated that wildlife and environmental considerations remain absent from even the most recent health security capacity assessments and plans and that wildlife is not a priority in the context of health security frameworks. However, dedicated international commitment would be important to support countries in building wildlife health capacity.

The importance of a One Health multi-sectoral and collaborative approach – one that recognises the connection among the health of humans, animals and ecosystems – was highlighted in this study to ensure improved coverage and effectiveness of wildlife disease surveillance systems.

The adoption of digital surveillance systems to optimise data flow and efficiency of data collection, analysis, reporting and data sharing might facilitate intersectoral, national and international collaborations and data interpretations. This would allow the inclusion of enhanced competencies for risk reduction, particularly those related to disease emergence. Increased consideration of wildlife and environmental changes as the major source of emerging zoonoses could help in understanding and managing risks to animal and public health.

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Surveillance sanitaire de la faune sauvage : lacunes, besoins et perspectives

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Résumé

L'émergence de maladies représente une menace pour la santé publique, l'économie et la conservation de la biodiversité au niveau mondial. La plupart des maladies émergentes sont d'origine animale et proviennent de la faune

sauvage. Afin de prévenir leur propagation et de soutenir la mise en œuvre de mesures de contrôle, une surveillance des maladies et des systèmes de notification sont nécessaires – et ce à l'échelle internationale, en raison de la mondialisation. En vue de définir les lacunes principales affectant les performances de la surveillance et de la notification sanitaire relative à la faune sauvage au niveau mondial, les auteurs ont analysé les données d'un questionnaire envoyé aux Points focaux nationaux de l'Organisation mondiale de la santé animale et traitant de la structure et des limites des systèmes de surveillance et de notification applicables à la faune sauvage sur leur territoire. Selon les réponses des 103 Membres, qui représentaient toutes les régions du monde, 54,4 % disposent d'un programme de surveillance et 66 % ont mis en œuvre une stratégie visant à gérer la propagation de maladies. L'absence de budgets dédiés affecte la possibilité d'enquêter sur l'apparition d'épidémies, de prélever des échantillons et d'effectuer des tests diagnostiques. Bien que la majorité des Membres consignent dans des bases de données centralisées les événements de mortalité et de morbidité affectant la faune sauvage, l'analyse des données et l'évaluation des risques sanitaires ont été mentionnées comme étant des besoins prioritaires. Les auteurs ont évalué les capacités de surveillance qui se situent, selon eux, à un niveau faible et se caractérisent par une grande variabilité entre les Membres, indépendamment des zones géographiques dont il s'agit. Une meilleure surveillance sanitaire de la faune sauvage au niveau mondial permettrait d'améliorer la compréhension et la gestion des risques pour la santé animale et publique. Par ailleurs, une réflexion sur l'influence des aspects socio-économiques, culturels et liés à la biodiversité améliorerait la surveillance sanitaire mise en place dans le cadre de l'approche Une seule santé.

Mots-clés

Cadre en faveur de la santé de la faune sauvage – Enquête mondiale – Qualité des données – Surveillance sanitaire de la faune sauvage – Une seule santé.

Carencias, necesidades y posibilidades de la vigilancia sanitaria de la fauna silvestre

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Resumen

La aparición de enfermedades representa una amenaza de dimensión mundial para la salud pública, la economía y la conservación de los recursos biológicos. La mayor parte de las enfermedades zoonóticas tienen un origen animal, por lo general localizado en la fauna silvestre. Para evitar que estas enfermedades se propaguen y apoyar la aplicación de medidas de lucha hacen falta sistemas de vigilancia y notificación de enfermedades, sistemas que, teniendo en cuenta las dinámicas de la mundialización, deben declinarse a escala planetaria. Con objeto de determinar las principales carencias que lastran el buen funcionamiento de los sistemas de vigilancia y notificación de enfermedades de la fauna silvestre a escala mundial, los autores analizaron datos extraídos de un cuestionario distribuido entre los puntos focales nacionales de la Organización Mundial de Sanidad Animal, en el cual se les preguntaba por la estructura y los límites que presentaban en su territorio dichos sistemas. Las respuestas recibidas de 103 Miembros de todas las zonas del globo pusieron de relieve que un 54,4% de ellos cuenta con un programa de vigilancia sanitaria de la fauna silvestre y que un 66% tiene implantada una estrategia para contener la propagación de enfermedades. La falta de un presupuesto asignado específicamente a estas tareas limita la posibilidad de investigar eventuales brotes, obtener muestras y practicar pruebas de diagnóstico. Aunque la mayoría de los Miembros lleva un registro de los episodios de mortalidad y morbilidad de animales salvajes en bases de datos centralizadas, el análisis de datos y la determinación del riesgo de enfermedad son dos de los aspectos mencionados como necesidad prioritaria. La evaluación de la capacidad de vigilancia realizada por los autores puso de manifiesto un nivel en general bajo, con una marcada heterogeneidad entre los Miembros que no se circunscribía a una zona geográfica en particular. Una mayor vigilancia de las enfermedades de la fauna silvestre a escala mundial ayudaría a aprehender y manejar mejor los riesgos que estas presentan para la sanidad animal y la salud pública. Además, el hecho de tener en cuenta la influencia de factores socioeconómicos, culturales y ligados a la diversidad biológica podría traducirse en una más eficaz vigilancia sanitaria en clave de Una sola salud.

Palabras clave

Calidad de los datos – Estudio mundial – Marco para la sanidad de la fauna silvestre – Una sola salud – Vigilancia sanitaria de la fauna silvestre.

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