Building Leadership in Veterinary Services
Given that the work of Veterinary Services is an essential Public Good and is vital for good health governance, the World Organisation for Animal Health (WOAH, founded as OIE) has for many years been working to help its Members bring their Services into conformity with international standards and has long argued that building robust Veterinary Services should be a public investment priority.

This commitment has resulted in the implementation of two major programmes that aim to strengthen the capacities of Veterinary Services: firstly, the organisation of training sessions for Delegates and national Focal Points (1), and, secondly, the PVS Pathway and its multiple components. Over the years, these programmes have been enriched and modernised and have been progressively better integrated with other WOAH initiatives in a more holistic approach to animal health issues. This approach also includes extending WOAH training to a wider target audience, with the aim of contributing to the development of a sufficient veterinary workforce amongst our Members.

The global challenges of climate change, ecosystem preservation and increasingly worrying food crises must be taken into consideration, because action to improve animal health can help tackle these challenges. Conversely, the evolution of animal diseases and their emergence are impacted by these factors, which should lead us to rethink certain production methods. However, national Veterinary Services are often ill-equipped to act, as clearly is shown in the Technical Item that WOAH presented at its annual General Session in May 2019 (2).

With the COVID-19 crisis, the importance of WOAH's message about the need for robust Veterinary Services became clear to global political decision-makers. Consequently, at the end if the G20 Heads of State and Government Summit, held in Rome on 30–31 October 2021, they reiterated their support for the strengthening of ‘global surveillance, early detection and early warning systems, under the coordinating role of the WHO, the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (WOAH) and the United Nations Environment Programme (UNEP)...’ in order to better manage the risks posed by contact between humans, animals and the environment, particularly the risk of the emergence of zoonoses.

This ambition will only be achievable if health services, including Veterinary Services, are adequately resourced and have the capacity to act effectively: this is the challenge that we must meet, notably through the implementation of the Joint Plan of Action developed by the Quadripartite Alliance (3).

The plan to develop an international agreement on pandemic prevention, preparedness and response has put global health governance back on the agenda, and funding mechanisms are being rethought, so there is now an historic opportunity to recognise the critical role of Veterinary Services and support efforts to strengthen them.

I hope that readers of this issue of Panorama will be interested to know more about this topic and that the wealth of articles presented here will meet their expectations.

Monique Éloit, Director General
World Organisation for Animal Health (WOAH, founded as OIE)

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(1) WOAH Delegates designate a national ‘Focal Point’ for eight themes of vital importance for Veterinary Services: animal disease notification, wildlife, veterinary products and antimicrobial resistance, animal production food safety, animal welfare, aquatic animals, communication, and veterinary laboratories.

(2) Grace D., Caminiti A., Torres G., Messori S., Bett B.K., Lee H.S., Roesel K. & Smith J. (2019). – How external factors (e.g. climate change, conflicts, socio-economics, trading patterns) will impact Veterinary Services and the adaptations required.
EDITORIAL

Strengthening Veterinary Services to face new health challenges

KEYWORDS

#capacity building, #editorial, #education, #public good, #training, #Veterinary Services, #World Organisation for Animal Health (WOAH).

© World Organisation for Animal Health/Hannah Bose
The Global Burden of Animal Diseases (GBADs) programme will systematically assess the economic importance of animals, documenting the human costs of poor animal health and welfare, and identifying what people spend on their animals’ health [1]. GBADs will complement other World Organisation for Animal Health (WOAH) programmes, such as the Platform for Training Veterinary Services and the PVS Pathway [2, 3].

Building the capacity of Veterinary Services to use the GBADs approach and the information generated from this will allow better decision-making when it comes to allocating resources to meet the technical, economic and social needs of farmers and their wider communities. In fact, all those involved in terrestrial and aquatic livestock production and processing will benefit. The intention is to manage, analyse and present data that can be interpreted at the local, national, international and regional geographic scale, categorising this information by production sector and system, as well as by gender.

The GBADs programme will draw on existing data from a large variety of public- and private-sector sources by forming data alliances with multiple stakeholders. WOAH and Veterinary Services play a key role in data generation, reporting and validation. Information from the PVS Evaluation process will be used to assess the readiness of Veterinary Services to perform economic analysis. It will also help them to determine the best ways to develop their capacity to provide data and carry out economic analyses using the GBADs approach.

Numerous PVS Pathway Critical Competencies support economic literacy for Veterinary Services. Others address data management, which is essential to carrying out an economic analysis of animal health. Understanding the current state of these Critical Competencies through the PVS evaluation process is an important first step in building the capacities needed to use the GBADs approach.

The coverage and quality of GBADs data should improve over time. Veterinary Services will continue to play a key role in this, by generating and reporting valid data and contributing to GBADs analyses. Training in the GBADs approach will be given to WOAH Members through the WOAH Training Platform [2]. The current WOAH training system, anchored in a Competency-Based Training Framework, includes a competency package entirely devoted to the economics of animal health. Users will be provided with learning opportunities to use the GBADs approach for interpretation and analysis. To demonstrate the value of GBADs and build momentum, the GBADs Global Team will provide support in selected country case studies.

Using information generated through the GBADs approach can support the case for investment in Veterinary Services and encourage strategic development plans for national animal health services during the planning stages of the PVS Pathway (PVS Gap Analysis and PVS Strategic Planning Support). At the international and regional level, GBADs can support the prioritisation, mobilisation of resources and performance monitoring of global initiatives, such as the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs).

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PERSPECTIVES

OPINIONS AND STRATEGIES

Building capacities for animal health using the Global Burden of Animal Diseases
(GBADs) approach

SUMMARY
Incorporating economic analysis into the decisions taken on animal health investment by using the GBADs approach will help to target resources more effectively towards animal diseases that threaten national food security, people’s livelihoods, public health and trade.

KEYWORDS
#animal health, #capacity building, #cost–benefit analysis, #economics in animal health, #education, #Global Burden of Animal Diseases (GBADs), #One Health, #training, #Veterinary Services, #WOAH PVS Pathway, #World Organisation for Animal Health (WOAH).

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REFERENCES


In 2017, the World Organisation for Animal Health (WOAH, founded as OIE) adopted its Global Animal Welfare Strategy (Fig.1 [A]). One of the Strategy’s pillars is to focus on strengthening the capacities of Veterinary Services.

The first work plan created to put this into practice during 2022–2023 identifies and prioritises several capacity-building activities, which will be implemented at the regional level using regional instruments (a regional animal welfare strategy and work plan, the regional animal welfare platform for Europe (Fig.1 [A])). The WOAH Collaborating Centres on Animal Welfare (Fig.1 [A]), which have recently formed a global network, will be strongly involved in these activities to provide increased support to WOAH Members and promote the spread of animal welfare concepts, as well as to implement WOAH standards within each country.
The WOAH Competency-based Training Framework for Animal Welfare is currently under development (Fig.1 [C]), with the production of a scoping document that will guide the development of future WOAH e-modules on this topic. Several e-modules are already in the pipeline, covering subjects such as welfare conditions when reptiles are killed, in pig production systems and during international transport. Several existing e-modules and resources from well-known partners (Fig.1 [D]) will also be reviewed, as well as face-to-face training courses.

For the latter, customised programmes will be developed, based on the results of national PVS evaluations (for example, Critical Competency II.13 is dedicated to animal welfare) and the WOAH Stray Dog Self-Assessment Monitoring tool (Fig.1 [B]), developed to measure Veterinary Services’ compliance with Chapter 7.7. Dog population management of the Terrestrial Animal Health Code. Courses at three levels of expertise (from Day 1 to expert level) will be offered to progressively upgrade Veterinary Service capacities for animal welfare. Animal Welfare Focal Points will receive specialised training twice a year, to promote more engagement in the standards-setting process (Fig.1 [E][F]). Several other WOAH initiatives, such as the Observatory, PVS Pathway and Platform for the Training of Veterinary Services, will complement these activities.
Building capacities for animal welfare

Animal welfare, a pillar of the Competency-based Training Framework of the World Organisation for Animal Health

SUMMARY
A full competency package of the WOAH Training Framework will be dedicated to animal welfare, to strengthen Members’ capacity to implement Section 7 of the Terrestrial Animal Health Code and the Aquatic Animal Health Code.

KEYWORDS
#animal welfare, #capacity building, #education, #international standard, #training, #Veterinary Services, #WOAH PVS Pathway, #World Organisation for Animal Health (WOAH).

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Aquatic animal production is growing rapidly and contributes significantly to human nutrition, poverty alleviation and sustainable development. Disease outbreaks are the greatest threat to aquatic animal production globally, and efforts to manage them have not kept pace with the rapid growth of this industry.

The Aquatic Animal Health Strategy 2021–2025 of the World Organisation for Animal Health (WOAH, founded as OIE) was launched at the 88th WOAH General Session in May 2021 and sets priorities for collaborative action to protect aquatic animal health and welfare, and to fully exploit the potential of aquatic animal production at the national, regional and global level. With this in mind, WOAH works to strengthen its Members’ Aquatic Animal Health Services, through the following capacity-building activities:

- Increasing the use of the PVS Pathway for the sustainable improvement of national Aquatic Animal Health Services. The PVS Pathway helps Members to better understand their strengths and weaknesses and provides supporting mechanisms to build on those strengths and overcome challenges within the whole aquatic animal health domain. This includes all of the activities that are directly or indirectly related to aquatic animals, their products and by-products, such as farming, killing, processing, transport, and import and export, among others.

- Building the WOAH training framework on aquatic animal health and welfare, and ensuring that it aligns with the WOAH knowledge system (standards and guidelines) and the competencies set out in the WOAH PVS Tool: Aquatic. Training solutions will be developed and provided to Members through either regional or topic-based events (preferably face to face but potentially also through distance learning) after a learning-needs assessment.

These activities, among others, will support the implementation of the Aquatic Animal Health Strategy. The desired outcome is that CAs will improve their aquatic animal health management to the point where they are able to support increased production and reduce disease risks. The productivity and resilience of a region grow stronger through collaboration and improvements in health, and, thanks to WOAH and its partners, a more resilient global aquatic animal production environment can be achieved.
Building capacities for sustainable Aquatic Animal Health systems

KEYWORDS


AUTHORS

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One Health emergencies require all sectors to be at the table to respond effectively and holding One Health simulation exercises offers an excellent opportunity to build key relationships across different sectors and disciplines, understand respective mandates and ensure a more cost-effective and coordinated response during a One Health emergency.

To assist its Members, the World Organisation for Animal Health (WOAH, founded as OIE) has published high level recommendations for Veterinary Services and Aquatic Animal Health Services on how to plan, deliver and learn from simulation exercises [1, 2].

A simulation exercise is a controlled activity where a situation, that could exist in reality, is imitated for training, assessment of capabilities and testing of plans [3]. Holding a simulation exercise offers multiple benefits such as to:

- Identify strengths, gaps and areas for improvement in emergency plans and procedures;
- Encourage familiarisation with plans and procedures;
- Allow exercise players to practice their roles and decision-making in a safe environment outside of an emergency;
- Foster interaction and build networks with other agencies, stakeholders and other countries.

Simulation exercises can take a discussions-based format, such as a table-top, or an operations-based one such as a drill, functional or full-scale exercise. Veterinary Services and Aquatic Animal Health Services should take a progressive approach to undertaking exercises, starting with simpler ones first such as table-tops and drills before attempting the more complex forms of exercises.

Simulation exercises should be also part of a wider programme of capacity building and not stand-alone. Exercises are a fundamental component of the emergency preparedness cycle and can allow for continuous improvement in emergency preparedness. Every exercise should include an evaluation to identify strengths, lessons and corrective action if necessary, as well as an evaluation of the exercise itself to allow for improvement in the planning and delivery of future exercises.

WOAH also recommends that its Members report the intention to hold a simulation exercise to the organisation, to enable the global dissemination of the notification to raise visibility of Members’ preparedness activities and also to avoid any misunderstandings that the exercise is a real disease event or real emergency [1, 2].

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PERSPECTIVES

OPINIONS AND STRATEGIES

Simulation exercises, an essential tool for building One Health resilience

KEYWORDS

#capacity building, #contingency planning, #education, #emergency preparedness, #One Health, #resilience, #simulation exercise, #training, #Veterinary Services, #World Organisation for Animal Health (WOAH).
AUTHORS

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Veterinary Services (VS) play a central role in protecting domestic and wild animal health. However, many national VS lack the capacity, resources and appropriate regulatory and multisectoral collaborative frameworks to protect wildlife health.

Through its Wildlife Health Framework, the World Organisation for Animal Health (WOAH, founded as OIE) aims to strengthen the capacity of VS and their partners by improving their disease surveillance and management systems. The range of well-established WOAH flagship VS support programmes, such as the Laboratory Twinning Programme and the Performance of Veterinary Services (PVS) Pathway, allows us to carry out a portfolio of scalable capacity-building approaches.

One initiative, in particular, involves a global review of veterinary legislation to examine the existing legal mandates for VS to address wildlife diseases and ask what further legal elements are required to ensure that these mandates are being fulfilled. This project takes place under the PVS Veterinary Legislation Support programme.

The Ebola Virus Disease Capacity Building and Surveillance Project (EBO−SURSY), which focuses on strengthening early detection systems for wildlife in West and Central Africa to prevent outbreaks of Ebola virus disease and four other viral haemorrhagic fevers, is another key example of WOAH’s new wildlife activities.

Using pedagogic technical tools at a One Health training session.
© World Organisation for Animal Health / S. Muset

Participatory workshops targeting WOAH National Focal Points in Africa were also designed to develop multisectoral national protocols for wildlife surveillance. They include specially designed learning tools, such as the card game with a serious purpose, ‘Alerte’, to raise awareness about the role of community-based wildlife surveillance systems. In addition, PhD and Masters students are working alongside Veterinary and Wildlife Service professionals in multisectoral scientific activities, benefiting from ongoing training in the field and in the laboratory. This programme should strengthen the abilities of future animal health professionals, as well as increasing the capacity of national institutions to reinforce their surveillance systems. A systematic evaluation of the long-term success of these initiatives has been carried out.
Other projects are being piloted, e.g. in South-East Asia, where an integrated approach to disease prevention and control is being implemented. This takes the form of a study of wild pig distribution, their interactions with domestic pigs and the consequent risk factors for disease spread between wild and domestic populations. In addition, training in surveillance, biosecurity and One Health is being offered to community animal health workers and forest rangers. This project is taking place in villages close to National Parks and involves a range of stakeholders, including local communities, to ensure coordinated action at all the points where domestic animals, wild animals and human beings interact.

“It was a great experience to meet people from different parts of the world. I learned a lot, and I hope to transfer this knowledge to my colleagues when I return home”. Participant in the One Health training, Guinea, October 2019.

In addition to in-person training, WOAH has carried out several global e-training webinars for World Wildlife Day and Wildlife Focal Points. More broadly, WOAH is putting a lot of effort into developing a robust and consistent Competency-based Training Framework, featuring a specific competency package dedicated to wildlife health issues. Several e-modules on wildlife surveillance and trade will also be available on the WOAH training portal in 2023–2024.
Equipping Regions with Collaborating Centers in wildlife health

A Laboratory Twinning project is currently under way between the WOAH Collaborating Centre Consortium for Wildlife (USA/Canada) and Mahidol University (Thailand) to assist in formally establishing a WOAH Collaborating Centre in Wildlife Health and Biodiversity in Thailand. This Centre will be the first of its kind in the Asia-Pacific region, and is aimed at reinforcing support for WOAH Members in addressing wildlife health issues.

Ebola alert in Guinea: early investigations in wildlife and laboratory diagnostic capacity

When Ebola Virus Disease broke out in Guinea in 2021, a wildlife investigation mission was rapidly and efficiently deployed. The multisectoral team involved the National Directorate of Veterinary Services (DNSV); the Guinean Office of Parks and Reserves (OGUIPAR); the Guinean Centre for Infectious Disease Research and Training (CERFIG); the Wild Chimpanzee Foundation (WCF); the French Agricultural Research Centre for International Development (CIRAD); the French National Research Institute for Sustainable Development (IRD); and the Robert Koch Institute (RKI, Germany). Such a rapid intersectoral response was possible thanks to the activities carried out by the EBO–SURSY Project in Guinea since 2017. Continuous training of agents from national institutions, both in the laboratory and in the field, combined with solid partnerships between institutions at all levels, meant that highly qualified field teams could be deployed quickly. This rapid response was also triggered during the COVID-19 pandemic. The ability to keep improving our response times to outbreak alerts is vital if we want to be able to control similar threats to animal and human health in the future.
SUMMARY

To support Veterinary Services and their partners in protecting wildlife health, WOAH has been developing a wide range of innovative learning tools and methodologies, targeting future and current animal health and wildlife conservation professionals, while ensuring a sustainable capacity-building approach.

KEYWORDS

#capacity building, #education, #surveillance, #training, #Veterinary Services, #wildlife health, #WOAH Wildlife Health Framework, #World Organisation for Animal Health (WOAH).

AUTHORS

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Field training session (bat capture and sampling) at One Health training in Guinea. © World Organisation for Animal Health / S. Muset
The WOAH mission to improve animal health globally, thereby ensuring a better future for all requires Veterinary Services to be fully engaged, as well as a larger number of stakeholders at the global level. In both these areas, competencies must be strengthened to achieve and maintain this ambitious goal. Training is essential to instil the importance of WOAH standards and guidelines and facilitate their implementation, and to foster the One Health approach, which recognises that the health of animals, humans and the natural environment is interdependent.

The year 2018 marked ten years since the launch of the Focal Points global capacity-building programme. In acknowledgement of this, WOAH has started to rethink its training system in depth and created a Global Platform for the Training of Veterinary Services, with a five-year work plan. This initiative supports Strategic Objective 3 of the WOAH Seventh Strategic Plan, ‘Driving a high level of support to WOAH Members, through standards and capacity building’. Under this new global platform, the five pillars of the WOAH training system are being constructed, namely:

- a robust competency-based training framework
- a [training portal](#) with an online training catalogue
- training guidelines for professional approaches to all steps of the training cycle
- training resources and programmes, whether face to face or at a distance
- new option for [targeted support of the PVS Pathway on veterinary education](#), to assist Members with national training capacity.

All these pillars are building blocks of the WOAH Corporate Learning Strategy, which is currently under development. The inception phase, in which all the pillars will be put into place, will be long and costly in both human and financial resources, and donors are encouraged to fund the whole system for harmonious and efficient deployment.

The new training system cuts across WOAH core missions and establishes strong operational links and mutual reinforcement with other WOAH key initiatives, such as the PVS Pathway, the Observatory, the digital transformation programme and all information and knowledge systems. Links will also be created with training systems of other international organisations, particularly those of the Quadripartite.¹

The training system has already started to provide training services to Members (Fig. 1). Our ambition is that, at the end of the Seventh Strategic Plan, the WOAH training system will be robust enough to provide training solutions to all Members’ issues in regard to the quality and management of their Veterinary Services.

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¹ The Quadripartite is composed of the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (WOAH), the United Nations Environment Programme (UNEP) and the World Health Organization (WHO).
## WOAH training system in numbers

<table>
<thead>
<tr>
<th>Building WOAH training system</th>
<th>2022</th>
<th>2023 – 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pillar 1</strong> Competency Package Terms of Reference</td>
<td>2</td>
<td>14</td>
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<tr>
<td>Competency-based Training Framework</td>
<td>In progress</td>
<td>1</td>
</tr>
<tr>
<td><strong>Pillar 2</strong> Training Portal</td>
<td>1</td>
<td>1 (upgraded)</td>
</tr>
<tr>
<td><strong>Pillar 3</strong> Training guidelines</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Pillar 4</strong> E-modules developed or labelled</td>
<td>10 in progress*</td>
<td>60 (20 e-modules /year)</td>
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<tr>
<td>E-resources available (in support of training)</td>
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<td>WOAH and partners’ resources</td>
</tr>
<tr>
<td><strong>Pillar 5</strong> PVS Targeted supports</td>
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<td></td>
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<tr>
<td><strong>WOAH Corporate Training Strategy</strong></td>
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### Using WOAH training System

<table>
<thead>
<tr>
<th>Using WOAH training System</th>
<th>2022</th>
<th>2023 – 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pillar 2</strong> Portal visitors</td>
<td>6,500</td>
<td>Over 20,000</td>
</tr>
<tr>
<td><strong>Pillar 3</strong> Learners (F2F)</td>
<td><em>(limited due to COVID)</em></td>
<td>Over 500</td>
</tr>
<tr>
<td><strong>Pillar 3</strong> Learners (distance learning)</td>
<td>200</td>
<td>Over 5,000</td>
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<tr>
<td><strong>Pillar 4</strong> Customised VS/AAHS training programmes</td>
<td></td>
<td>Progressive involvement of WOAH Members</td>
</tr>
<tr>
<td><strong>Pillar 5</strong> PVS education missions</td>
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<td>4</td>
</tr>
</tbody>
</table>

* 3 on Veterinary Services leadership; 4 on emergency management; 4 on wildlife surveillance and trade; 1 on outbreak investigation; 1 on PPP and surveillance.

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## PERSPECTIVES

## WOAH ACTIONS
The training system of the World Organisation for Animal Health

SUMMARY

In embracing the reform of its training system, WOAH is signalling the beginning of a new learning era for its Members. Training activities are now more centred on Members’ needs; carefully tailored to Veterinary Service roles and responsibilities, both current and future; and target a large audience through distance learning. WOAH Focal Points and Delegates are being joined by thousands of new learners, progressively building the WOAH learning community.

KEYWORDS

#capacity building, #eLearning, #education, #innovative solution, #training, #Veterinary Services, #World Organisation for Animal Health (WOAH).

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How does notification to the World Organisation for Animal Health (WOAH, founded as OIE) empower leadership of Veterinary Services (VS) and Competent Authorities (CAs)?

Since its creation in 1924, WOAH has ensured transparency of the global animal health situation. The Veterinary Services of WOAH Members have an obligation to notify WOAH of all relevant information on animal health through the World Animal Health Information System (WAHIS) [1, 2, 3]. This information is shared through the WAHIS public interface and used to ensure the safe movement of animals and animal products, to perform risk assessments, and to inform policy decision-making for animal and public health [4].

Transparency in animal disease notification and timely and accurate reporting demonstrate that VS and CAs carry out good practices. The official information published in WAHIS is used by partner countries to prevent disease incursion through the international movement of animals and animal products.

![The World Animal Health Information System (WAHIS) disease situation dashboard. This map shows the distribution of African swine fever, reported by Members as of 21 August 2022.](https://bulletin.woh.org/)

Early notification to WOAH not only illustrates that the VS concerned have the capacity for disease surveillance and early detection, but also shows their willingness and transparency to communicate at the international level. In addition, VS and CAs can notify exceptional animal disease events to WOAH through WAHIS, by means of immediate notification and daily follow-up reports.

In 2021, 580 immediate notifications and 3,266 follow-up reports were submitted through WAHIS and figures show an upward trend since 2014.

When identifying reporting countries that have tested positive for the presence of a specific disease, the sensitivity of the system depends on the disease involved. Several studies show that the vast majority of VS correctly report their disease situation [5, 6, 7, 8].

Countries know that data on the absence of a disease in their territories, or the territories of their trading partners, facilitates trade and opens up international markets for trade of animals and their products. This is why other non-Members also report their animal health information through WAHIS. In 2022, in addition to the 182 WOAH Members, 26 territories and non-Members reported their animal health situation through the system.
Moreover, WOAH makes this information available to researchers, institutions, decision-makers and other stakeholders. WAHIS holds data on more than 200 diseases from around 200 countries collected since 1996. These data represent an important source of information for disease modelling and prediction, and allow visualisation of disease dynamics, supporting VS to perform risk analyses.

Therefore, accurate and timely reporting by WOAH Members through WAHIS demonstrates leadership in transparency, a rapid response to disease outbreaks, global communication and the ownership of the competencies required to manage this process effectively.

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PERSPECTIVES

WOAH ACTIONS

The strategic use of WAHIS empowers leadership of Veterinary Services

SUMMARY

WAHIS holds a wealth of data gathered by countries' Veterinary Services, including information on listed and emerging diseases. This article outlines how the data reported through WAHIS empower the leadership of Veterinary Services through accurate, timely and transparent notification.

KEYWORDS

#capacity building, #disease information, #safe trade, #transparency, #Veterinary Services, #WAHIS, #World Organisation for Animal Health (WOAH).

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REFERENCES

The Quadripartite Organisations – the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), the World Health Organization (WHO), and the World Organisation for Animal Health (WOAH, founded as OIE) – together drive the changes needed to mitigate the impact of current and future health challenges at the human–animal–plant–environment interface, within countries, within regions and around the world.

Responding to international requests to help prevent future pandemics and promote health sustainably through the One Health approach, the Quadripartite has developed the One Health Joint Plan of Action (2022–2026) (OH JPA) [1].

The OH JPA outlines the commitment of these four organisations to collectively advocating and supporting the implementation of One Health. It builds on, complements and adds value to existing global and regional One Health and coordination initiatives that are aimed at strengthening our capacity to address complex multidimensional health risks by ensuring more resilient health systems at every level.

The OH JPA is built around six interdependent ‘action tracks’ that together contribute towards achieving sustainable health and food systems, reducing global health threats and improving ecosystem management. Each action track consists of a set of actions with specific activities, deliverables and a timeline to achieve its objectives.
Contact person at the World Organisation for Animal Health (WOAH): Dr Chadia Wannous, One Health Global Coordinator

https://doi.org/10.20506/bull.2023.1.3377

**PERSPECTIVES**

**JOINT ACTIONS**

**The One Health Joint Plan of Action (2022–2026)**

Working together for the health of humans, animals, plants and the environment

**SUMMARY**

The objective of the One Health Joint Plan of Action (OH JPA) is to create a world better able to prevent, predict, detect and respond to serious health threats and to improve the health of humans, animals, plants and the environment, while contributing to sustainable development.

**KEYWORDS**

#capacity building, #One Health, #pandemic, #Quadripartite (FAO/WOAH/WHO/UNEP), #World Organisation for Animal Health (WOAH).
REFERENCES

While capacity-building efforts may have improved bench-top capacity for some diseases in many laboratories, World Organisation for Animal Health (WOAH, founded as OIE) data suggest that such capacity is not always sustainable. It is too often under-used, unleveraged and inefficient, leading to waste [1]. These disheartening conclusions warrant much reflection on traditional capacity-building approaches, coordination and methods.

In the [PVS Pathway Sustainable Laboratories Missions](https://bulletin.woah.org), PVS Experts help WOAH Members to evaluate their need for laboratory services, the costs of delivering those services, and any problems with their sustainability. The task of the PVS Experts is then to propose suitable recommendations for action. Through its [Sustainable Laboratories Initiative](https://bulletin.woah.org), and thanks to support from [Global Affairs Canada](https://bulletin.woah.org), WOAH is using these data to highlight areas where more investment is required.

The data show that, for laboratory networks to provide relevant, accurate and timely results to the health system, countries must understand their overall laboratory capacity, their ability to respond to their health system’s needs, and the real costs of such a response, as well as having a sustainable business model in place [1].

**Overall Laboratory Capacity**

Countries are using only a fraction of their potential capacity: laboratories in the cohort are currently using between 30% and 51% of their potential annual testing capacity based on [equipment](https://bulletin.woah.org) and human resources.

**Responding to clients’ needs**

Public laboratories view their main clients as the government (44%) and private veterinarians and smallholder farmers (19%), but fall short of meeting the needs of the private sector (21%).

**The real costs of laboratory analysis**

On average, it costs 59% more to provide laboratory services within a country than to send samples to international reference laboratories. Moreover the quality of services provided within each country may vary considerably.

**Sustainable business model**

Among the cohort, 38% of laboratories charged fees for testing to private-sector clients, and 21% to the public sector, but only 13% of laboratories can use their revenue directly. Moreover, given that only 40% of laboratories have cost-accounting systems, the fees charged are seldom based on real costs.

**The way forward**

Without a change in approach, laboratory networks will not be able to fulfil their role in national health systems or improve health security.

Interventions should balance technical assistance with management, business and strategy interventions, in order to build a culture based on quality, sustainability and good business practice. Laboratories must link infrastructure to
demand and insist on accountability beyond a five-year landscape.

WOAH is focusing its capacity-building approach for animal health laboratories on sharing insights with its stakeholders to inform their decision-making. It is also conducting an impact review of the Laboratory Twinning Programme, to better understand its benefits.

The Laboratory Twinning Programme enables WOAH to use its network of Reference Laboratories and Collaborating Centres to assist institutes who wish to improve their capacity and scientific expertise. The aim is to strengthen national and regional laboratory capabilities for the benefit of countries and their region.

The National Veterinary Research Institute of Vom, in Central Nigeria, is a prominent facility that conducts pioneering research into the diagnosis, treatment and control of economically important diseases in its country. Nigeria has requested a Sustainable Laboratories Mission. Dr Maryam Muhammad, the Institute's Director, believes that sustainability is a major factor contributing to gender equality in science-related environments [2]. ‘Investing in sustainable laboratories will improve the lives of women,’ she says, by granting women in the biological threats reduction field a safe space where they will be empowered to pursue their careers and make a significant contribution to their communities.

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PERSPECTIVES

WOAH ACTIONS

From Laboratory Missions to Twinning Projects

A way forward for sustainable laboratory networks

SUMMARY

When it comes to capacity building for animal health laboratories, WOAH is focusing its approach on sharing insights with its stakeholders to inform their decision-making. In addition, it is conducting an impact review of the Laboratory Twinning Programme to understand the outcomes and benefits of twinning.

KEYWORDS

#capacity building, #data management, #gender equality, #laboratory, #laboratory twinning, #public good, #sustainability, #veterinary workforce, #WOAH PVS Pathway, #World Organisation for Animal Health (WOAH).

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The World Organisation for Animal Health (WOAH) Observatory will work hand in hand with the WOAH Platform for the training of Veterinary Services to generate a virtuous learning cycle to encourage improved implementation of WOAH standards and guidelines.

Observatory indicators will produce well-informed needs assessment

The WOAH Observatory analyses a wide range of data compiled from both internal and external sources to produce annual and thematic reports. The purpose is to identify factors that may be limiting the proper implementation of WOAH standards within a WOAH Member’s national Veterinary Services and to successfully address them.

Internal data sources include the PVS Pathway, the World Animal Health Information System (WAHIS), Members’ self-declarations of disease status and officially recognised disease status, etc. External sources comprise international organisations, such as the World Trade Organization, Food and Agriculture Organization of the United Nations and the World Bank.

Based on these reports, the Training Platform will be able to conduct a well-informed needs assessment of a Member's ability to fulfil the WOAH texts and recommend active and passive learning programmes to improve their performance.

A set of WOAH Training Guidelines on learning needs assessment is currently under development. This will set the groundwork for a mechanism to routinely integrate the work of the Observatory. It will also allow WOAH to evaluate whether this mechanism should be automated, with the support of a central data system.

As a result, the Training Platform will be able to develop customised training programmes, providing learning-based solutions, to help Members who currently have limited capacity to implement the WOAH standards.

Providing feedback on the impact of WOAH training

The Platform will also systematically assess the medium- to long-term impact of such WOAH training on strengthening Veterinary Services, and this information will be also ‘fed back’ to the Observatory.

Impact Assessment Guidelines will be developed to support this phase of the project. If the impact turns out to be negligible, then the training programmes will be reviewed accordingly. If the report shows that Veterinary Services capacity has improved and that WOAH standards are being met more successfully, then these results will be automatically channelled back to the Observatory for consideration in its future analyses.
The WOAH Observatory: a valuable source of data and information for capacity building for Veterinary Services

An opportunity for data cross-fertilisation between two core WOAH initiatives

KEYWORDS
#capacity building, #international standard, #training, #Veterinary Services, #WOAH Observatory, #World Organisation for Animal Health (WOAH).

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Recommendations from the 2020 World Organisation for Animal Health (WOAH) PVS Pathway External Evaluation and lessons learned from the COVID-19 pandemic have given momentum to the evolution of the PVS Pathway. New methodologies and mission delivery formats were developed in 2021 to build on this unique opportunity to harness digital tools and optimise data management. The digitalisation of the PVS Pathway’s data and processes will help to build capacity for Veterinary Services (VS) and support the WOAH Seventh Strategic Plan 2021–2025.

Initiatives to better respond to WOAH Members’ needs now include remote and face-to-face Orientation Training Workshops. This interactive training provides Members with an introduction to the PVS Pathway, using tailored webinars and materials from WOAH’s Training Platform. A new support option to accompany Members’ self-evaluations using the PVS Tool was designed and has been piloted in India. More than ten PVS Gap Analysis, Sustainable Laboratories and Veterinary Legislation missions were successfully delivered in fully remote and/or hybrid formats in Africa and Central Asia, while new tools are under development to integrate public–private partnerships, workforce development and wildlife health into the PVS Pathway more effectively.

The progressive digitalisation of the PVS Pathway, begun in 2021, will lead to the creation of a PVS Evaluation Database, improving management of PVS data and access to reports for greater transparency and enhanced impact of the PVS Pathway.

A centralised PVS Pathway Information System is envisaged, allowing synergies between tools, documentation and data across the PVS Pathway. Tools to search and view documentation and reports will allow Members and WOAH partners to build on PVS Pathway findings, develop VS support that aligns with existing needs, advocate investment in animal health, and contribute to the improvement of animal health and welfare around the world.

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KEYWORDS
#capacity building, #digital technology, #education, #training, #Veterinary Services, #WOAH PVS Pathway, #workshop, #World Organisation for Animal Health (WOAH).

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A properly trained workforce in field epidemiology is essential to strengthen national capabilities in disease surveillance, epidemiological investigations, and outbreak preparedness and response. Therefore, the global public health, animal health and environmental health communities recognise interoperable field epidemiology training as a priority area for workforce development to strengthen health security.

Although more than 100 field epidemiology training programmes for human and animal health are already being implemented in more than 165 countries, internationally accepted competencies for field epidemiologists working in animal health, public health or environmental health within a One Health context have not yet been established.

A One Health (OH) field epidemiology competency framework was designed by the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO) and the World Organisation for Animal Health (WOAH), to support the human, animal and environmental health workforce in developing collaborative capacities to be applied at the frontline, intermediate and advanced levels of expertise.

The competency framework – encompassing 10 technical and 4 functional domains – describes the knowledge, skills and competencies required at the three levels and classifies them as minimum core competencies or optional competencies under a One Health approach, in addition to sector-specific competencies for human, animal and environmental health.

A prioritisation tool was also designed to facilitate country-level prioritisation of competencies in the framework and may lead to harmonised competencies at regional and subregional level, thus also enabling worker mobility.

The competency framework is complemented by guidelines on curriculum development, mentorship and sustainability, continuing education, and graduate evaluation and certification.

The OH field epidemiology framework, tool and supplementary guidelines are intended to provide guidance to ensure that epidemiologists can work within the OH approach with the goal of assisting countries in assessing and improving the quality and scope of their field epidemiology training programmes.
The quality and comprehensiveness of the proposed framework are being assessed by a Technical Advisory Group consisting of more than 60 international experts, representing all geographical regions.

The competency framework and its accompanying guidelines are expected to be published in 2023 and are likely to be piloted in 2024–26 to evaluate their effectiveness in the field.

The project was sponsored by the United States Department of Defense, Defense Threat Reduction Agency (DTRA). The content of the information does not necessarily reflect the position or the policy of the Federal Government of the United States, and no official endorsement should be inferred. We would also like to acknowledge the United States DoD DTRA Cooperative Threat Reduction Program’s support of project HDTRA1-19-1-0046 ‘Strengthening Capabilities for Epidemiology and Biosurveillance’.

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DOSSIER

One Health capacities for field epidemiologists: The FAO/WHO/WOAH competency framework

SUMMARY

The FAO/WHO/WOAH One Health field epidemiology competency framework is the first global initiative to develop One Health competency guidelines for training programmes in field epidemiology.

KEYWORDS

#biosurveillance, #capacity building, #education, #epidemiology, #field epidemiology competency framework, #Food and Agriculture Organization of the United Nations (FAO), #food security, #guidelines, #One Health, #public health, #surveillance, #training, #Tripartite (FAO/WHO/FAO), #veterinary workforce, #World Health Organization (WHO), #World Organisation for Animal Health (WOAH).

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Veterinarians are the most highly trained and versatile members of the veterinary workforce. As such, Veterinary Services (VS) depend on veterinarians to fulfill their various mandates throughout the veterinary domain. However, many countries lack the financial resources, training capacity and economic opportunities to produce and deploy sufficient veterinarians. Veterinary paraprofessionals (VPPs) with more limited but appropriate training can therefore be essential to the overall veterinary workforce, and the development, recognition and deployment of different cadres of VPPs can be a cost-effective way for countries to strengthen their national VS workforce in the public and private sectors.

Through the PVS Pathway, which includes the Programme for Workforce Development, the World Organisation for Animal Health (WOAH, founded as OIE) supports its Members to develop appropriate staffing solutions for their VS that reflect the country conditions [1].

This begins with a workforce assessment exercise to identify service gaps. The assessment then serves as the basis for: i) workforce planning and development that explores diverse solutions to staffing, while upholding the need to maintain standards that guarantee the quality of work performed and the preservation of public safety; and ii) consideration of the enabling environment needed to provide clear legal status, comprehensive regulation, appropriate training and effective integration of all recognised categories of veterinary personnel, including VPPs and, where appropriate, community animal health workers (CAHWs).

Such a diversified veterinary workforce can effectively deliver important public good functions such as animal and zoonotic disease control and food safety as well as improving access to last-mile delivery of clinical and preventive services to female and male animal owners, particularly in underserved areas and populations. Noting that livestock supports the livelihoods and food security of almost 1.3 billion people [2], improved access to services means reduced risks of livestock mortality and improved productivity, which creates opportunities for enhanced livelihoods, greater food security and improved nutrition for livestock owners, their families and communities. Diversifying the veterinary workforce can also help to meet UN Sustainable Development Goals, by creating additional employment opportunities in the livestock sector in rural areas and by enhancing prospects for the employment of women who are often responsible for the care of animals. As such, the strengthening of the veterinary services workforce and its benefits to rural communities contributes to the promotion of sustainable development outcomes.

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DOSSIER

Veterinary workforce development

Rural services for livelihoods and food security

SUMMARY

Through its Programme for Workforce Development, WOAH supports its Members to develop appropriate staffing solutions for their Veterinary Services that reflect country conditions. This support includes workforce assessment and the creation of legal,
regulatory and educational frameworks that allow flexibility in staffing decisions while maintaining quality performance.

KEYWORDS
#capacity building, #education, #food security, #Global Burden of Animal Diseases (GBADs), #One Health, #training, #veterinary paraprofessional, #Veterinary Services, #veterinary workforce, #World Organisation for Animal Health (WOAH).

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The Tripartite (WHO, WOAH and FAO) has developed the National Bridging Workshop (NBW) Programme to support intersectoral collaboration among countries to help prevent, detect and respond to zoonotic diseases and other health events at the animal–human interface. The cornerstone activity of the programme is a three-day workshop, bringing together 60–90 stakeholders from animal and human health services at the local, national and regional level, as well as representatives of other relevant sectors (the environment, wildlife, media, police, etc.).

These interactive NBW sessions build on existing synergies between the WHO International Health Regulations (IHR) and WOAH PVS Pathway. The aim is to raise awareness of the importance of greater streamlining of One Health (OH) activities in order to strengthen both animal and human health systems.

The programme creates a unique opportunity for the human, animal and environmental health sectors to jointly identify any gaps in collaboration and to develop a roadmap to address them. To ensure greater impact, the Tripartite also provides support for implementing roadmap activities. These follow-up activities are structured around four pillars:

1. The recruitment of a national NBW Catalyst (an OH expert).
2. Monitoring and evaluating the implementation of the roadmap activities.
3. Technical and, when possible, financial support for the implementation of the roadmap activities.
4. The establishment of a Community of Practice to share and discuss experiences, good practices and challenges.

The NBW Programme has led to the completion of more than 40 workshops, and most countries are already advanced in carrying out the roadmap. Momentum has also been created for OH initiatives, as illustrated by many OH platforms being reactivated during NBWs in Africa, and institutional endorsement of the OH approach in some countries following a workshop.

**In Tanzania,** the mapping of OH stakeholders and the establishment of coordination and communication mechanisms between the sectors has improved the detection, prevention and control of zoonoses, as evidenced by the efficient control of the recent leptospirosis outbreak in the Lindi region.

**In Sierra Leone,** joint rapid response teams were put together, risk communication messaging and community engagement were carried out as a combined effort, and the incident action plan for an OH response was also a jointly crafted document. The response to the May 2022 anthrax outbreak in Sierra Leone (animal and human cases in the Portloko and Karene districts) was an inspiring example of OH collaboration and a significant improvement on other responses in the past.

**In Nigeria,** NBW roadmap implementation resulted in improved sharing of surveillance information among the three sectors. For example, the National One Health Risk Surveillance and Information Sharing (NOHRSIS) group has been instrumental in speeding up the exchange of information, leading to a more effective response to the recent monkeypox outbreak, as well as the rapid execution of joint risk assessments for anthrax, Crimean–Congo haemorrhagic fever and blue tick fever, all of which were reported in neighbouring countries.

(1) The Tripartite is composed of the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (WOAH) and the World Health Organization (WHO).
The collaborative framework built through the IHR/PVS National Bridging Workshop Programme

KEYWORDS

#Africa, #capacity building, #cooperation, #Food and Agriculture Organization of the United Nations (FAO), #IHR–PVS National Bridging Workshop, #International Health Regulations (IHR) (2005), #One Health, #public health, #Tripartite (FAO/WOAH/WHO), #Veterinary Services, #WOAH PVS Pathway, #workshop, #World Health Organization (WHO), #World Organisation for Animal Health (WOAH), #zoonosis.

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National Bridging Workshop in Tanzania. © WHO–WOAH
Access to high-quality Veterinary Services is fundamental for animal producers, owners and consumers, as well as all those involved in the animal value chain. These services also constitute an important aspect of agricultural development. Veterinary Services make a vital contribution to global health security, food security, nutrition, poverty alleviation and resilience. Public–private partnerships (PPPs) offer innovative solutions for improving quality and access to Veterinary Services.

Recognising the important yet often undervalued role of PPPs in the veterinary domain, the World Organisation for Animal Health (WOAH, founded as OIE), in collaboration with the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (Cirad) and with the support of the Bill & Melinda Gates Foundation, has developed several tools to encourage their use, most notably the WOAH [PPP Handbook](https://www.wоah.int/en/PPP-handbook) and [PPP e-learning courses](https://www.wоah.int/en/PPP-e-learning-courses). The purpose is to help both public and private stakeholders, at the national, regional or global level, to establish effective and sustainable partnerships.

To improve understanding of the variety of PPP options, together with the potential benefits and challenges of such partnerships, the WOAH [PPP Database](https://www.wоah.int/en/PPP-database) is now open access. To date, it consists of a collection of more than 100 case studies from 76 countries around the world and creates a strong knowledge base for cross-pollination of experiences. This database can also be enriched with users’ own experiences of veterinary PPPs. WOAH's aim is that the experience gained from these learning journeys will facilitate future public–private partnerships in the animal health arena.

The Organisation is committed to helping governments to make informed decisions about improving access to Veterinary Services and their quality, including, where appropriate, using PPPs as a delivery option. In addition to this, WOAH also encourages a conducive environment for public and private stakeholders, one which promotes the importance and value of working collaboratively. This approach is underscored by the full integration of PPPs in WOAH’s flagship capacity-building programme, the [PVS Pathway](https://www.wоah.int/en/PVS-pathway).

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AROUND THE WORLD

SUCCESS STORIES

The WOAH Database of Public–Private Partnerships

A collection of success stories in the veterinary domain

SUMMARY

An open-access database of public–private partnerships, the first of its kind, has been developed by WOAH for all stakeholders working to ensure quality Veterinary Services worldwide.

KEYWORDS

#capacity building, #data management, #eLearning, #education, #public–private partnership, #training, #veterinary domain, #Veterinary Services, #World Organisation for Animal Health (WOAH).

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Veterinary schools in the Association of Southeast Asian Nations (ASEAN) Veterinary Statutory Body Network (AVSBN) are a step closer to ensuring the proficiency of their graduates and the delivery of essential national Veterinary Services after using the Assessment and Implementation of Day-1 Competencies (AID-1C) methodology. This methodology, designed and developed by the Ohio State University (OSU) Veterinary Public Health (VPH) Program Directors, Drs Armando Hoet and Amanda Berrian, is endorsed by the World Organisation for Animal Health (WOAH, founded as OIE) Sub-Regional Representation for South-East Asia and AVSBN as an important tool towards the accreditation of veterinary schools in the region.

In October 2022, the OSU VPH Program representatives (Dr Amanda Berrian, Associate Director; Dr Samantha Swisher, Resident; Dr Andrea Bessler, Resident; and Dr Aminata Kalley, Resident) facilitated Curriculum Assessment Workshops at three veterinary schools in South-East Asia:

- Khon Kaen University (KKU), Thailand
- Royal University of Agriculture (RUA), Cambodia
- University of the Philippines Los Baños (UPLB), the Philippines.

The workshops, which included 213 assessors and 39 observers from 7 countries and 41 veterinary schools, were part of the Assessment and Implementation of Day-1 Competencies (AID-1C) methodology, developed through the Veterinary Education Twinning Programme with the University of Gondar in Ethiopia and led by VPH Program Director, Dr Armando Hoet (2015–2022) [1]. Today, the AID-1C methodology is a component of the Day-1 Platform for Veterinary Education, a collaboration with the Center for Food Security and Public Health (CFSPH) at Iowa State University, and managed at OSU by Dr Amanda Berrian. The Day-1 Platform is an open, online platform for high-quality teaching materials designed for use by veterinary schools in low- and middle-income countries.

During the Curriculum Assessment Workshops, input is collected from faculty members, recent graduates, current students, employers, and other stakeholders of the veterinary school being assessed, using an online Evaluation Tool. The Evaluation Tool uses the WOAH Recommendations on the Competencies of Graduating Veterinarians and
Veterinary Education Core Curriculum Guidelines as a framework, assessing 156 topics under 19 specific and advanced competencies related to veterinary public health and preventative medicine. The competencies emphasise the importance of veterinarians as integral partners in the implementation of One Health, promoting health at the interface of humans, animals, plants and the environment.

In Thailand (6–7 October), 81 participants contributed to the assessment of the KKU veterinary curriculum, including stakeholders from both the public and private sectors. Additionally, 21 observers from other Thai and regional veterinary schools (Laos, Vietnam) took part so that they could learn the methodology and apply it at their own institutions in the near future. One observer noted, ‘This workshop at KKU improved my vision to get insights [into] the methods and goals of assessment, which will potentially be applied to develop my institute.’

In the Philippines (11–13 October), 79 attendees took part in the assessment of the UPLB veterinary curriculum. The event was hosted in Manila and, in addition to UPLB stakeholders, included 18 observers from other institutions in the Philippines, Indonesia, and Malaysia. Participants shared their perspective on the activity:

- ‘The entire event was very informative, and we got to share ideas and knowledge with our colleagues.’
- ‘The Curriculum Assessment Workshop is a big help in the improvement and updating of the veterinary medicine curriculum. If the changes or adjustments in the curriculum push through, the veterinary student will have a chance to be exposed to what is actually happening in the field.’

In Cambodia (11–13 October), 53 participants evaluated the veterinary curriculum at the RUA. To accommodate the needs and preferences of the implementing institution, the Evaluation Tool was translated into Khmer and administered using paper forms (pictured). A participant in the RUA workshop noted, ‘This workshop is so good and useful for development [of the] capacity [of] veterinary medicine in Cambodia.’
In addition to the main assessment workshops held by each veterinary school, the OSU team organised town hall-style meetings to survey students in the last years of their programme. This activity used the same Evaluation Tool but a different format and dynamics to create an environment where students can discuss the topics and ask clarifying questions. One student noted, ‘It was well organised and systematic. I was forced to think and assess our curriculum carefully, and I think this was a really productive event.’

Data collected from the workshops are currently being analysed to identify each programme’s strengths and potential gaps in the curriculum with regard to the WOAH Day-1 Competencies. Each university will receive a customised Curriculum Evaluation Report to inform the next phase of the AID-1C process, including the prioritisation of possible interventions and development of an action plan to address deficiencies.

In addition to informing the curriculum review process, the WOAH Sub-Regional Representation for South-East Asia has endorsed the OSU Evaluation Tool as part of the AVSBN Accreditation Standards. These assessments will help to ensure harmonisation across ASEAN Member States and facilitate the mobility of veterinarians within the region.

Dr David Sherman, Programme Coordinator of the Veterinary Education Establishment Twinning Programme under the WOAH Capacity Building Department, indicated that, to date, 12 Veterinary Education Establishment Twinning Projects supported by WOAH have been completed. All these projects have produced tangible benefits in curriculum reform and improved teaching methodologies. The success of the twinning project between Ohio State University and the University of Gondar is especially noteworthy [1]. Not only did the two partners achieve all of their intended objectives for curriculum reform but, thanks to the strong commitment of key stakeholders in Ethiopia, the improvements developed at Gondar as a result of the twinning project are now being adopted by all veterinary faculties in Ethiopia. Moreover, the tools developed for curriculum assessment during this project are now being applied throughout South-East Asia, in collaboration with the WOAH sub-regional office in Bangkok. From the WOAH perspective, this twinning project has been a remarkable success.

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AROUND THE WORLD
The Assessment and Implementation of Day-1 Competencies (AID-1C) in veterinary education

A scalable and repeatable methodology

SUMMARY

The AID-1C methodology uses WOAH recommendations as a framework to ensure that veterinary schools produce graduates who enhance the health of animals and the public, protect food safety, and promote safe movement and trade of animals and animal products. In October 2022, three workshops were hosted on this methodology by partner universities in South-East Asia.

KEYWORDS

#Association of Southeast Asian Nations (ASEAN), #capacity building, #education, #public health, #South-East Asia, #Veterinary Services, #WOAH Veterinary Education Twinning Programme, #World Organisation for Animal Health (WOAH).

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Optimising the expertise of WOAH Collaborating Centres

Since 2018, the eight World Organisation for Animal Health (WOAH, founded as OIE) Collaborating Centres for Training and Education have been active members of the WOAH Platform for the Training of Veterinary Services. As such, they contribute to the development of the Competency-Based Training Framework and to the development of WOAH’s quality-focused approach to training, providing pedagogical and methodological expertise.

One of the Platform priorities has been the design of specific guidelines setting out the core and (when necessary) advanced requirements that must be followed at each stage of the training cycle (learning needs assessment, design, delivery, and evaluation). These guidelines are strategically important in guaranteeing the quality and robustness of the Organisation’s Training System. The guidelines containing the core requirements for the development of eLearning modules have been published on the WOAH Training Portal. All WOAH eLearning providers are asked to follow them, while other continuing education providers (including WOAH Members) are encouraged to consider them in the development of their eResources.

This innovative approach represents a win-win model of collaboration, allowing these centres of excellence to play an important role in the development of one of the WOAH flagship programmes while enabling the Organisation to benefit from first-class expertise and know-how. Coherence with the strategic objectives of the WOAH Training System is guaranteed by a five-year joint workplan that is aligned with the Collaborating Centres terms of reference and the Guidance for the Management of WOAH Collaborating Centre Networks.

Globalising training provision through a network of networks

The Platform intends to gradually integrate the networks of other Reference Centres in order to combine the methodological competencies of the existing members with the scientific and technical expertise of the other WOAH consolidated networks. The ambition is to transform the WOAH Platform into a network of networks that enables Centres to work together, thus optimising all their expertise. If possible, over the long term, a joint workplan will be finalised to help achieve the strategic objectives of the WOAH training system. It is hoped that this pilot experience will inspire innovative approaches to the management of Collaborating Centres and Reference Laboratories (and, most of all, their networks), which are a key component of the WOAH science system.
AROUND THE WORLD

NETWORK INITIATIVES

The WOAH Platform for the Training of Veterinary Services

A collaborative mechanism with WOAH Collaborating Centres
SUMMARY
Since 2018, the WOAH Collaborating Centres for Training and Education have been at the heart of the reform of the WOAH training system. The gradual integration of other Reference Centres into the Training Platform will provide a wider and more robust mechanism to guarantee the effectiveness of the learning processes.

KEYWORDS
#capacity building, #eLearning, #education, #training, #Veterinary Services, #WOAH Collaborating Centre, #World Organisation for Animal Health (WOAH).

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Peste des petits ruminants (PPR) is a devastating viral disease that threatens the livelihoods of sheep and goat keepers in Africa, the Middle East and much of Asia. In 2015, the World Organisation for Animal Health (WOAH, founded as OIE), in conjunction with the Food and Agriculture Organization of the United Nations (FAO), launched a worldwide eradication effort against PPR. This PPR Global Control and Eradication Strategy (GCES) called for the eradication of PPR by 2030 and emphasised the importance of strong national Veterinary Services (VS) in accomplishing that goal.

Through its PVS Pathway, WOAH offers an opportunity for Members to assess their national VS and identify gaps and weaknesses. The key element of the PVS Pathway is the PVS Evaluation mission. This involves a team of PVS experts being invited to conduct a systematic assessment of a country’s national VS by evaluating 45 Critical Competencies deemed essential for effective performance.

The PPR GCES identifies 32 of those 45 Critical Competencies as necessary for the effective control and eradication of PPR. It has developed a PPR Monitoring and Assessment Tool (PMAT), which uses those competencies to help countries pinpoint their position along the GCES stages towards WOAH freedom from PPR.

WOAH recognised that there was a clear synergy between the PVS Evaluation and the PMAT assessment and proposed to the Joint FAO/WOAH PPR Secretariat that PVS Evaluation missions with PPR-specific content be launched. These would assist Members to obtain a regular PVS assessment, along with a more focused appraisal of their readiness to control and eradicate PPR.

Eight pilot PVS missions with PPR-specific content were undertaken between 2017 and 2019 [1]. These missions were well received by the participating Members as they provided a deeper understanding of the link between VS capacity and the ability to eradicate a transboundary disease, and the use of the PMAT tool to strengthen VS in the fight against PPR.

During the period of PVS mission suspension due to the COVID-19 pandemic, the PMAT tool was revised, and a new version produced. The PVS missions with PPR-specific content have now resumed, and three new missions were carried out in 2022, in Cameroon, Côte d'Ivoire, and Sierra Leone.

https://doi.org/10.20506/bull.2023.1.3388

AROUND THE WORLD

WOAH ACTIONS

PVS Evaluation missions with a special emphasis on peste des petits ruminants

Lessons learned from pilot missions

SUMMARY

WOAH’s PVS Pathway allows Members to systematically assess their national Veterinary Services. Now, by adding a specific focus
Panorama 2023-1

on PPR, WOAH is assisting its Members to identify their preparedness for effective participation in the global eradication of this destructive disease.

KEYWORDS
#capacity building, #Global Strategy for the Control and Eradication of Peste des Petits Ruminants (PPR-GCES), #peste des petits ruminants (PPR), #Veterinary Services, #WOAH PVS Pathway, #World Organisation for Animal Health (WOAH).

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The views expressed in this article are solely the responsibility of the author(s). The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by WOAH in preference to others of a similar nature that are not mentioned.

REFERENCES

Many World Organisation for Animal Health (WOAH, founded as OIE) Members in the Asia and Pacific region have limited systems in place for veterinary workforce planning. This presents challenges in ensuring that veterinarians and veterinary para-professionals (VPPs) work in an environment that enables them to perform to their full potential. Only 41% of surveyed Members regularly reviewed their human resource needs within the veterinary workforce, and yet 73% indicated a general shortage of personnel in their national Veterinary Services [1].

So what are the elements that make up a positive and enabling environment for veterinarians and VPPs? They include comprehensive legislation on veterinary practice, regulation of the profession (often through a veterinary statutory body), approved and effective competency-based training, and coordination and communication among stakeholders. This will also help to ensure that VPPs – who sometimes make up more than half the veterinary workforce (Fig. 1) and occupy a wide range of roles in animal health and production, veterinary public health and laboratory diagnosis (Fig. 2) – are properly integrated into the workforce.

Figure 1. The ratio of veterinary paraprofessionals to veterinarians involved in animal health activities. Based on WAHIS data, graphic by Dr Miftaul Barbaruah.
In June–July 2021, a Virtual Regional Awareness-Raising Workshop was held on veterinary workforce development in the Asia–Pacific region, the role of VPPs in Veterinary Services, and the support available to Members through the PVS Pathway. A total of 230 people from 28 Members and organisations took part, and many expressed interest in follow-up activities, such as national workshops on veterinary workforce development, workforce assessment, and VPP curriculum review [2, 3].

'Bhutan is a mountainous country and delivery of veterinary services in remote areas is difficult. So we developed training modules for VPPs and community animal health workers. The WOAH regional workshop raised awareness about various roles that VS play and the need for legislation to promote fruitful engagement of VPPs in a sustainable manner, as well as the need to review the capacity of our VPP training institution. After the workshop, we initiated consultations with national stakeholders and submitted an expression of interest for WOAH support'.

A participant from Bhutan

The recommendations from the workshop will help to support Members’ efforts by developing strategic priorities and defining action plans for building a more resilient veterinary workforce [3].

A new video also helps raise awareness of the topic and introduces WOAH’s veterinary workforce development programme to interested stakeholders.

https://doi.org/10.20506/bull.2023.1.3387

AROUND THE WORLD
Development of the veterinary workforce in Asia and the Pacific

SUMMARY

A Virtual Regional Awareness-Raising Workshop on the veterinary workforce and veterinary para-professionals (VPPs) in Asia and the Pacific was held in 2021. The goal was to promote awareness about veterinary workforce development, the role of VPPs in Veterinary Services and the WOAH support available to Members through the PVS Pathway. The workshop's recommendations will help to develop strategic priorities and create action plans to build a more resilient veterinary workforce in the region.

KEYWORDS

#Asia, #capacity building, #legislation, #recommendation, #resilience, #Veterinary Services, #veterinary workforce, #World Organisation for Animal Health (WOAH).

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REFERENCES

This article presents an overview of an assessment of legislation regulating the veterinary professions in Africa that was undertaken to determine the legal landscape for regulating veterinary paraprofessionals (VPPs).

The World Organisation for Animal Health (WOAH, founded as OIE) recognises that its Members utilise veterinarians and VPPs to staff their national Veterinary Services (VS). While there is considerable variation in workforce composition between countries and regions, WOAH expects that countries regulate the training, qualification, prerogatives, and professional conduct of staff in all categories of the veterinary workforce. This requires the establishment of a legal framework for veterinary practice, such as a Veterinary Practice Act, which addresses the requirements for registration of both veterinarians and VPPs.

Throughout the Africa region, there is a high proportion of VPPs in the workforce relative to graduate veterinarians. As part of its programme on veterinary workforce development, WOAH reviewed veterinary legislation in this region to determine the extent to which the recommended legal framework for regulating veterinarians and VPPs is in place. Fifty of 54 WOAH Members in the Africa region agreed to share their legislation around veterinary practice, which was reviewed against a set of essential elements from the Terrestrial Animal Health Code deemed necessary for proper regulation of the veterinary professions.

This study found that, generally, African countries recognise the importance of regulating veterinarians, as 40 out of the 50 responding countries have legislation regulating the veterinary professions (Figure 1). Further, 98% of responding countries with legislation include a legal basis for the creation of a Veterinary Statutory Body (VSB) to regulate the veterinary professions, with 92% of these countries establishing a VSB in practice. However, the results also show that VPPs are underregulated in Africa compared to veterinarians (Figure 2). Notably, of the 39 countries with a legal basis to create a VSB, only 12 countries (30%) included a legal basis for their VSB to regulate VPPs in addition to veterinarians.
Fig. 1. Comparison of the number of responding countries with legislation containing the element in question, with the corresponding percentage out of the 40 responding countries with legislation.
Thus, the regulation of VPPs requires greater attention in veterinary legislation in Africa, particularly since VPPs comprise a significant proportion of the regional veterinary workforce. A strong legal basis for the training, qualifications, prerogatives, regulation and professional conduct of VPPs will encourage greater recognition of the value these workers provide to the national VS and enhance the quality of their performance. Through its Veterinary Legislation Support Programme (VLSP) in the PVS Pathway, WOAH is poised to assist members with identifying gaps in their legislation and drafting new legislation to address them.

Joint statement (27 May 2022) from Dr Kobedi Segale, Botswana Veterinary Surgeon's Council registrar, and Dr Kefentse Motshegwa, Botswana Department of Veterinary Services Deputy Director and Designated Project Officer responsible for the implementation of the WOAH Veterinary Legislation Agreement (incl. Review Team Leader), which took place between 26 August 2019 and 25 May 2021
Botswana Veterinary Surgeon’s Act
1. The proposed amendment of the Veterinary Surgeons Act (VSA) will close the regulatory gap in the regulation of the veterinary practice, to bring it to the international standard and to address the current and future national needs.
2. The amended act, although not limited to the following, provides for:
   1. Entire regulation of the veterinary profession including the veterinary para-profession and veterinary specialists
   2. Determination of minimum standards of continuous education
   3. Establishment of the codes of practice and professional scope of practice
   4. Clear criteria for appointment of Veterinary Council membership
   5. Establishment of the Secretariat
   6. Powers of entry and inspection by the Council into premises to enforce the Act
   7. Establishment of collaborative partnerships
   8. For the Council to investigate complaints on its own accord to facilitate the enforcement of the Act.
Veterinary Legislation Support Programme
1. After years of contemplation with no real progress, the VLSP agreement has provided the much-needed impetus for the review of the VSA, to bring it to the international standard and to address the current and future national needs.
2. Through the agreement, the Veterinary Department / Ministry of Agriculture have been able to justify initiation of the legislation review mechanism.
Regulation of the veterinary professions in Africa

A legislation review

SUMMARY
Based on a review of legislation regulating the veterinary profession from 50 countries in the Africa region, veterinary paraprofessionals are generally underrepresented in legislation and therefore underregulated compared to veterinarians, despite the preponderance of these workers in the region.

KEYWORDS
#Africa, #capacity building, #legislation, #Veterinary Legislation Support Programme (VLSP), #veterinary paraprofessional, #Veterinary Services, #Veterinary Statutory Body, #veterinary workforce, #WOAH PVS Pathway, #World Organisation for Animal Health (WOAH).

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IHR-PVS National Bridging Workshops (abbreviated NBW) are three-day events facilitated by the World Health Organization (WHO) and the World Organisation for Animal Health (WOAH, founded as OIE) bringing together 50-to-80 participants from public health and from animal health services.

The objective of the workshops is to analyse and improve the collaboration between the two sectors in the prevention, detection and response to zoonotic diseases and other health events at the animal–human interface (food safety, food security, antimicrobial resistance).

[Access the NBW portal on the WHO extranet site]

RESOURCES

EXTERNAL RESOURCES

IHR-PVS National Bridging Workshops

KEYWORDS

#antimicrobial resistance (AMR), #capacity building, #cooperation, #food safety, #food security, #IHR–PVS National Bridging Workshop, #International Health Regulations (IHR) (2005), #One Health, #public health, #Tripartite (FAO/WOAH/WHO), #veterinary domain, #Veterinary Services, #WOAH PVS Pathway, #workshop, #World Health Organization (WHO), #World Organisation for Animal Health (WOAH), #zoonosis.
The University of Gondar College of Veterinary Medicine and Animal Sciences, Ethiopia, and the Ohio State University College of Veterinary Medicine, United States of America, developed an objective methodology to assess the curriculum of veterinary institutions and implement changes to create a curriculum that is harmonised with the World Organisation for Animal Health (WOAH, founded as OIE) standards while also covering the needs and realities of Gondar and Ethiopia. The process, developed under the sponsorship of the WOAH Veterinary Education Twinning Programme, is outlined in this article with the hope that it can be applied by other countries wishing to improve national veterinary services through the improvement of their academic programmes.

[Read the article]

**EXTERNAL RESOURCES**

**Development of an OIE harmonized Day 1 Competency-based Veterinary School Curriculum in Ethiopia: A partnership model for curriculum evaluation and implementation**

**KEYWORDS**

#capacity building, #education, #Ethiopia, #international standard, #veterinary domain, #WOAH Veterinary Education Twinning Programme, #World Organisation for Animal Health (WOAH).
Development of an OIE Harmonized Day 1 Competency-Based Veterinary School Curriculum in Ethiopia: A Partnership Model for Curriculum Development and Implementation

Amadeo E. Hem, Linly C. Fagge, Tsegay Fesse, Amanuel Medhin, James Ogbodo, Oluwatimilehin O. Ogun, Jeyson V. Suk, Woleweinu A. Adeyeye, Aminata P. Berres

ABSTRACT

The Joint FAO/WHO/OIE/FAO Africa region Veterinary Competency-Based Education Guidelines are intended to guide veterinary education institutions in the development of a Day 1 competency-based curriculum that will provide a foundational understanding of veterinary medicine and ensure that graduates are prepared to operate in a professional and ethical manner under the control of medical doctors. This study aimed to develop a Day 1 competency-based curriculum in Ethiopia. The development of the curriculum involved a participatory approach involving stakeholders from different institutions and countries. The curriculum was designed to be relevant to the local context and to address the needs of the veterinary profession in Ethiopia. The curriculum was developed using the OIE harmonized competency framework and was reviewed by experts from different countries. The curriculum was then piloted in a veterinary school in Ethiopia. The results of the pilot were used to refine the curriculum. The final curriculum was approved by the stakeholders and will be implemented in the veterinary schools in Ethiopia. The curriculum will help to ensure that veterinary graduates are well-prepared to meet the needs of the veterinary profession in Ethiopia.

INTRODUCTION

Veterinary education in Ethiopia and other countries in the region is not aligned with the current global demand for veterinary professionals. This is particularly true in the area of disease control and prevention. The global burden of Zoonotic diseases has increased significantly, and there is a need for veterinary graduates to be equipped with the necessary skills and knowledge to address these diseases. The OIE harmonized competency framework provides a standardized approach to veterinary education, ensuring that veterinary graduates are well-prepared to meet the needs of the veterinary profession globally. The development of a Day 1 competency-based curriculum in Ethiopia will help to ensure that veterinary graduates are well-prepared to meet the needs of the veterinary profession in Ethiopia and globally.
A multidisciplinary and multisectoral collaboration, through a One Health approach, is required to effectively prepare for, detect, assess, and respond to emerging and endemic zoonotic diseases.

However, external and internal health system evaluations continue to identify major gaps in capacity to implement multisectoral and multidisciplinary collaboration within and between many countries, and countries are asking for support from the Tripartite to fill these gaps. This guide is the response to those requests.

(1) The Tripartite is composed of the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (WOAH) and the World Health Organization (WHO).
Taking a Multisectoral, One Health Approach: A Tripartite Guide to Addressing Zoonotic Diseases in Countries
This collaborative database presents examples of Public–Private Partnerships (PPPs) in the veterinary domain, which have been shared with the World Organisation for Animal Health (WOAH, founded as OIE) by those who developed these partnerships.

[Access the database]

More information

RESOURCES

JOINT RESOURCES

The WOAH Database of Public–Private Partnerships

KEYWORDS

#capacity building, #data management, #eLearning, #education, #public–private partnership, #training, #veterinary domain, #Veterinary Services, #World Organisation for Animal Health (WOAH).
The SPH Portal is an interactive digital platform that facilitates the sharing and exchange of information on multisectoral health security investments, activities and capacities on a national, regional and global scale.

[Access the SPH Portal on the World Health Organization (WHO) extranet site]

RESOURCES

Strategic Partnership for Health Security and Emergency Preparedness (SPH) Portal

KEYWORDS

#capacity building, #IHR–PVS National Bridging Workshop, #One Health, #public health, #WOAH PVS Pathway, #World Health Organization (WHO).
The World Organisation for Animal Health (WOAH, founded as OIE) Regional Representation for Asia and the Pacific developed an awareness-raising video for veterinary service personnel and stakeholders, explaining the need for veterinary workforce planning and development.

Inspired by regional workshops on the veterinary workforce and veterinary paraprofessionals, the video includes statements from valued colleagues.

RESOURCES

WOAH RESOURCES

Veterinary workforce development: Strengthening national Veterinary Services

Video

KEYWORDS

#Asia, #capacity building, #legislation, #South-East Asia, #Veterinary Services, #veterinary workforce, #WOAH PVS Pathway.
With the support of its Collaborating Centres on Training and Education, WOAH has produced its first Training Guidelines. The purpose of these guidelines is to provide a framework for the development of quality eLearning modules for the WOAH Platform for the Training of Veterinary Services. They can also be used by any education provider or country to develop their own eLearning modules.

[ Download the document ]

RESOURCES

Guidelines for the development of OIE online modules: core requirement

KEYWORDS

#eLearning, #guidelines, #training, #Veterinary Services, #World Organisation for Animal Health (WOAH).
The World Organisation for Animal Health (WOAH, founded as OIE) strongly promotes education – in its initial and continuing dimensions – as one of the bases for sustainable Veterinary Services. Education should provide Veterinary Services with the knowledge, values, skills, competences and perspectives to implement their functions according to WOAH Codes. It should be interdisciplinary, integrating concepts and analytical tools from a variety of disciplines, and it should adapt to societal demands and sustainable development.

As part of its Seventh Strategic Plan, WOAH has decided to renovate its training system in line with strategic objectives on data management and Veterinary Services capacity building.

The WOAH Training Portal, the companion IT tool of the WOAH Platform for the Training of Veterinary Services, will be instrumental in the major renovation WOAH has initiated on the way it delivers training to its Members. It will:

- Address not only disease notification but also all topics addressed in the WOAH Codes, to support their implementation
- Support both distance and classroom training events
- Serve as a depository for training material and resources for different audiences and purposes (expertise, reporting, statistics, etc).

RESOURCES

WOAH RESOURCES

WOAH Training Portal

KEYWORDS

#capacity building, #education, #eLearning, #training, #Veterinary Services, #World Organisation for Animal Health (WOAH).

https://training.woah.org/
Continuing Education and Veterinary Capacity Building

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  Website: http://cnvz.agrinet.tn

Day-One Veterinary Competencies and Continuing Education

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Training Official Veterinarians (Africa)

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Training Official Veterinarians (Europe)

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Training of Veterinary Services

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  Website: https://vphcap.vet.cmu.ac.th/

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Veterinary Training and Capacity Building

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  Website: [https://www.izs.it/IZS/](https://www.izs.it/IZS/)

More information on WOAH Collaborating Centres

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**RESOURCES**

**WOAH RESOURCES**

**WOAH Collaborating Centres on Training and Education**

**List of Centres**

**KEYWORDS**

#capacity building, #cooperation, #education, #reference centre, #training, #WOAH Collaborating Centre, #World Organisation for Animal Health (WOAH).
The World Organisation for Animal Health (WOAH, founded as OIE) developed the following documents to support its Members with the provision of high-quality veterinary and veterinary paraprofessional education:

**WOAH Recommendations on the competencies of graduating veterinarians (‘Day 1 graduates’)***

This set of Recommendations provides an overview of the competencies necessary for the Day-1 veterinary graduate to be adequately prepared to participate in national Veterinary Services at the entry-level.

**WOAH Guidelines on Veterinary Education core curriculum***

These Guidelines are meant to serve as a tool for Veterinary Education institutions in WOAH Members to use when developing curricula to educate veterinary students to the expected level of competency.

**WOAH Guide to Veterinary Education Twinning Projects***

A Veterinary Education Establishment (VEE) Twinning Programme was established to create the opportunity for a ‘beneficiary’ VEE wishing to improve its performance, to link with a ‘parent’ VEE in a formal partnership to address specific, agreed upon targets for curriculum development and other aspects of educational capacity building, with WOAH support.
A Veterinary Statutory Body (VSB) Twinning Programme was established to create the opportunity for a 'beneficiary' VSB wishing to improve its performance, to link with a 'parent' VSB in a formal partnership to address specific, agreed upon targets for improvement.
KEYWORDS
#capacity building, #education, #guidelines, #recommendation, #veterinary paraprofessional, #Veterinary Services, #Veterinary Statutory Body, #veterinary workforce, #WOAH Veterinary Education Twinning Programme, #World Organisation for Animal Health (WOAH).
WOAH (founded as OIE) is a global organisation, working to ensure the health of animals across the world. Since 1924, we have focused on the complexities of animal health. We disseminate information on animal diseases and use science-based strategies to limit their potentially negative impact on society.