

# Competency and Curriculum Guidelines for Community Animal Health Workers

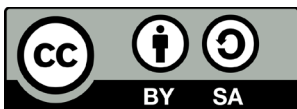


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# Foreword

WOAH recognises Veterinary Services as a global public good and has a long-standing commitment to strengthening the national Veterinary Services of its Members. An important part of that commitment is the recognition that an adequate, well-educated veterinary workforce is a core component of an effective Veterinary Service. Consequently, WOAHA has engaged in efforts to provide guidance on the training of various cadres of the veterinary workforce through the development of both competency guidelines and curriculum guidelines. Competency guidelines for veterinarians were published in 2012, followed by curriculum guidelines in 2013. For veterinary paraprofessionals, competency guidelines and curriculum guidelines were published in 2018 and 2019, respectively. Now, I am pleased to present the Competency and Curriculum Guidelines for Community Animal Health Workers (CAHWs).

CAHWs are not represented in all veterinary workforces throughout the world. But, where they are present, notably in Africa and Asia, they are seen as valued providers of many useful functions including the provision of basic animal health care to animal keepers, particularly in remote areas and the provision of valuable extension messages on animal health and disease control. In addition, CAHWs support the national Veterinary Service through disease reporting and by being a source of additional human resources at the local level, most notably for animal disease control activities such as vaccination campaigns.

However, despite their evident contributions, there are concerns around the training of CAHWs, since it is mostly informal and of short duration, with considerable variation in curriculum content. Furthermore, training programmes are often project-specific and not subject to external regulation. Consequently, the quality of CAHW services cannot be assured. Another concern is that CAHWs often operate independently, without the direction of a registered veterinarian or veterinary paraprofessional. Moreover, the Veterinary Authority may not even be aware of their presence, as there is often no mechanism for their registration or licensing.

To address these concerns, WOAHA convened an *ad hoc* group to develop a competency-based curriculum for CAHWs. The group, which consisted of educators, regulators and animal health experts, was tasked with developing a curriculum that was both realistic and practical. In addition, it had to be flexible enough to be adapted to the varied country contexts in which CAHWs work and the range of work activities they undertake. It is hoped that these guidelines will serve to address the two key concerns already mentioned, i.e. the lack of standardised training and the lack of a system of registration or licensing. These guidelines provide a framework for the development of consistent, harmonised, competency-based curricula and define the core competencies that CAHWs are expected to possess. The guidelines also provide a framework that will enable Veterinary Statutory Bodies or other regulatory agencies, to establish criteria against which CAHW training and qualifications can be measured. This will provide a basis for developing a system of registration or licensing and for establishing supervisory mechanisms. It is anticipated that, by facilitating improvements in training and regulation, these guidelines will allow CAHWs to be better integrated into the national Veterinary Services and increase their overall contribution to the veterinary workforce.

These guidelines also constitute an additional WOAHA contribution to the achievement of some of the United Nations Sustainable Development Goals, in particular Goal 4 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all', Goal 5 'Achieve gender equality and empower all women and girls' and Goal 8 'Promote

sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'. The guidelines also place an emphasis on CAHWs as useful participants in a One Health workforce, particularly at the community level, where they can raise awareness of One Health issues such as zoonotic disease control, antimicrobial resistance, food safety and environmental health.

WOAH encourages National Delegates to familiarise themselves with these competency and curriculum guidelines and to highlight them in discussions with relevant partners and stakeholders, including the National Veterinary Statutory Body and organisations involved in the training of CAHWs.

These Guidelines were promoted, conceived and developed with the strong support of the former WOAHD Director General, Dr Monique Eloit.

**Dr Emmanuelle Soubeyran**  
**Director General of the World Organisation for Animal Health**

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† Dr Gachengo Muriu Matindi sadly passed away on 29 January 2024

# Definitions

<b>Animal disease</b>	An impairment of the normal state of an animal that interrupts or modifies its vital functions. (Britannica, 2023)
<b>Animal health management</b>	A system designed to optimise the physical and behavioural health and welfare of animals. It includes the prevention, treatment and control of diseases and conditions affecting the individual animal and herd or flock, including the recording of illness, injuries, mortalities and medical treatments where appropriate. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Animal husbandry</b>	Controlled cultivation, management and production of domestic animals, including improvement of the qualities considered desirable by humans by means of breeding. Animals are bred and raised for utility (e.g. food, fur) sport, pleasure and research. (Critical Role of Animal Science Research in Food Security and Sustainability, 2015)
<b>Animal welfare</b>	The physical and mental state of an animal in relation to the conditions in which it lives and dies. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Antimicrobial agent</b> (antibiotics, endectocides, external parasiticides)	A naturally occurring, semi-synthetic or synthetic substance that exhibits antimicrobial activity (kills or inhibits the growth of microorganisms) at concentrations attainable in vivo. Anthelmintics and substances classed as disinfectants or antiseptics are excluded from this definition. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Antimicrobial resistance (AMR)</b>	The ability of microorganisms to persist or grow in the presence of drugs designed to inhibit or kill them. These drugs, called antimicrobials, are used to treat infectious diseases caused by microorganisms such as bacteria, fungi, viruses and protozoan parasites. (FAO, n.d.)
<b>Basic clinical and husbandry procedures</b>	The interventions that CAHWs are allowed to perform on animals under the responsibility of a veterinarian, a veterinary paraprofessional or appropriate official and within their legal and regulatory framework. These can include for example: hoof trimming, dehorning, wound dressing, ear notching, closed castration, basic first aid interventions, assisting in difficult deliveries, controlling bleeding and simple fracture management. (WOAH CAHWs <i>ad hoc</i> Group working definition, 2024)
<b>Biosecurity</b>	Describes the process and objective of managing biological risks associated with food and agriculture in a holistic manner. (FAO, 2003)
<b>Business management</b>	The process of planning, organising, directing and controlling the activities of a business or organisation to achieve its goals and objectives. (University of Cincinnati, n.d.)
<b>Competency</b>	The proven ability to apply knowledge, skills and personal, social and methodological abilities (attitudes and behaviours) in work or study situations and in professional and personal development in terms of responsibility and autonomy. It is not limited to cognitive elements (involving the use of theory, concepts or knowledge), as it also requires interpersonal skills (e.g. social or organisational skills) and ethical values where relevant. A core competency is the minimum level of competency expected to be achieved by the participants in a training programme. (WHO, FAO and WOA, 2023)
<b>Community Animal Health Worker (CAHW)</b>	A person selected from or by their own community and provided with short, initial or recurring vocational training to perform basic animal health and animal husbandry-related services, in line with national animal welfare standards. CAHWs operate on a fee-for-service basis or some other means, are accountable to a registered veterinarian, a registered veterinary paraprofessional or an appropriate official and are active in their community. CAHWs can also play an important role in a range of sanitary tasks such as disease reporting. (WOAH CAHWs <i>ad hoc</i> Group working definition, 2024)
<b>Community engagement</b>	The process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest or similar situations to address issues affecting the wellbeing of those people. (CDC, 1997)
<b>Disaster management</b>	The organisation, planning and application of measures preparing for, responding to and recovering from disasters. (UNDRR, n.d.)



<b>Ethnoveterinary medicine</b>	A field for protecting animal health and treating illnesses that is associated with traditional beliefs and indigenous knowledge and practices. (Khan, 2019)
<b>Food hygiene</b>	All conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain. (FAO - CODEX, 1999)
<b>Learning outcome</b>	The measurable knowledge, skills and abilities that learners should be able to demonstrate by the end of the training. (WOAH CAHWs <i>ad hoc</i> Group working definition, 2024)
<b>Module</b>	An instructional unit within a larger course or curriculum, usually organised by chronology, topics or themes. Each module will have a title and can include a combination of pages, discussions, assignments, quizzes, surveys and in the case of digital texts, links to files or external websites. (The Ohio State University, n.d.)
<b>One Health</b>	An integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems. It recognises that the health of humans, domestic and wild animals, plants and the wider environment (including ecosystems) is closely linked and inter-dependent. The approach mobilises multiple sectors, disciplines and communities at varying levels of society to work together to foster wellbeing and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change and contributing to sustainable development. (One Health High-Level Expert Panel, 2021)
<b>Primary production systems</b>	Encompass the production, rearing or growing of primary products including harvesting, milking and farmed animal production prior to slaughter. They also include hunting and fishing and the harvesting of wild products. (Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002, 2002)
<b>Public-private partnership</b>	A joint approach in which the public and private sectors agree responsibilities and share resources and risks to achieve common objectives that deliver benefits in a sustainable manner. (WOAH PPP Handbook, 2019)
<b>Quality of Veterinary Medicinal Products (VMPs)</b>	The maintenance of a high standard of regulation, manufacturing and use of VMPs that allows the public to have confidence in their safety and effectiveness. (WOAH CAHWs <i>ad hoc</i> Group working definition, 2024)
<b>Syndrome</b>	A recognisable complex of clinical signs and physical findings that regularly occur together. (WOAH CAHWs <i>ad hoc</i> Group working definition, 2024)
<b>Veterinarian</b>	A person with appropriate education, registered or licensed by the relevant veterinary statutory body of a country to practise veterinary medicine/science in that country. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Veterinary Authority</b>	The Governmental Authority of a Member Country having the primary responsibility in the whole territory for coordinating the implementation of the standards of the Terrestrial Code. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Veterinary Medicinal Product</b>	Any product with approved claims to having a prophylactic, therapeutic or diagnostic effect or to alter physiological functions when administered or applied to an animal. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Veterinary Paraprofessional (VPP)</b>	A person who, for the purposes of the Terrestrial Code, is authorised by the veterinary statutory body to carry out certain designated tasks (dependent upon the category of veterinary paraprofessional) in a territory and delegated to them under the responsibility and direction of a veterinarian. The tasks for each category of veterinary paraprofessional should be defined by the veterinary statutory body depending on qualifications and training and in accordance with need. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Veterinary Services</b>	The combination of governmental and non-governmental individuals and organisations that perform activities to implement the standards of the Terrestrial Code. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Veterinary Statutory Body (VSB)</b>	An autonomous regulatory body for veterinarians and veterinary paraprofessionals. (WOAH Terrestrial Animal Health Code Glossary, 2023)
<b>Vital health parameters</b>	Measurements of the body's most basic functions. In examining animals, these measurements should always include body temperature, pulse rate and respiratory (breathing) rate and may also include mucous membrane colour and hydration status. (WOAH CAHWs <i>ad hoc</i> Group working definition, 2024)

# I. Introduction

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## A. Background

In many countries, particularly in Asia and Africa, there are many active Community Animal Health Workers (CAHWs) and, in some cases, their numbers may exceed those of veterinarians and veterinary paraprofessionals (VPPs) (VSF-International, 2018). CAHWs can play a key role in rural areas, particularly where veterinarians and VPPs are in short supply, as they live in or close to, the communities they serve and complement the activities of veterinarians and VPPs.

Under direction from a registered veterinarian, a registered VPP or an appropriate official<sup>1</sup>, CAHWs may carry out all or some of the following activities:

- Providing basic animal health care, including treating sick animals and performing basic first aid and husbandry interventions;
- Organising or supporting livestock vaccination (including cold chain management) and strategic deworming;
- Advising animal owners and keepers on animal health, production and welfare;
- Collecting and sharing information for animal disease surveillance and reporting;
- Participating in veterinary public health activities such as control of zoonotic diseases and food safety;
- Participating in and contributing to, community activities inclusive of but not restricted to relevant associations and committees.

CAHWs are known by a variety of names all around the world, e.g. village animal health worker, community agro-vet entrepreneur, village veterinary worker, basic veterinary worker, village veterinary promoter, livestock auxiliary, village vaccinator, community vaccinator, poultry vaccinator<sup>2</sup>, livestock correspondent and, in some countries, even paraveterinarian. These different names are evidence of the variety of roles played by CAHWs and the importance of their place in their community. This varied nomenclature may also suggest the variability of their training.

For the purposes of these guidelines, WOA's working definition of a CAHW is as follows:



**A Community Animal Health Worker (CAHW) is a person selected from or by their own community and provided with short, initial or recurring vocational training to perform basic animal health and animal husbandry-related services, in line with national animal welfare standards. CAHWs operate on a fee for service basis or some other means, are accountable to a registered veterinarian, a registered VPP or an appropriate official, and are active in their community. CAHWs can also play an important role in a range of sanitary tasks such as disease reporting.**



<sup>1</sup> An example of an *appropriate official* might be an official of the local government who has been designated to supervise CAHWs, in the absence of a supervising registered veterinarian or VPP.

<sup>2</sup> Although some poultry, village or community vaccinators may have been trained in various aspects of the benefits of using vaccination in poultry or livestock, most vaccinators are primarily trained to simply administer the vaccines. Therefore, during the process of developing these guidelines, vaccinators were not considered as CAHWs. These guidelines can, however, be used by organisations and trainers to upgrade vaccinators to fully-fledged CAHWs as community demand grows.



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One of the key characteristics of CAHWs is that they are 'a person selected from or by their own community'. It has proven to be critical that, to be effective, CAHWS must be trusted by the community they serve.

Effective monitoring and supervision of CAHWs helps maintain and improve their performance, strengthens their credibility among stakeholders and helps to better harmonise their knowledge and skills. Monitoring and supervision also limit misconduct and help to establish a chain of command, which is essential for efficient animal health service delivery. Within that architecture, the roles and responsibilities of CAHWs, which must be based on their qualifications and training, should be clearly defined. This ensures that communities understand what CAHWs are authorised to do and that their position within the Veterinary Services is clear.

Since CAHWs are often the first point of contact for animal owners and keepers, they directly provide essential services and education that contribute to overall animal health and welfare. The variety of animals that they work with will depend on their location, but it could include small and large ruminants, poultry, pigs, camelids, equids, carnivores and/or species with particular relevance in their areas, e.g. rabbits, cane rats, capybaras, fish, etc. CAHWs can conduct regular health checks, administer vaccinations and attend to relevant local conditions and injuries when needed. By doing this, CAHWs promote sustainable agriculture and safeguard animal welfare, community livelihoods and the environment.

CAHWs are likely to have both private and public roles and responsibilities. In other words, in addition to providing private services to individual animal owners/keepers, they are also likely to be involved in supporting the work of public Veterinary Services. In their private capacity, CAHWs assist individual animal owners/keepers who suspect disease in their animals, carrying out clinical examinations and providing initial advice and treatment. In their public capacity, CAHWs are likely to have clearly defined roles and responsibilities related to early warning of disease or participation in disease control programmes. For their private work, to enable them to provide services in a sustainable manner, CAHWs are paid by individual animal owners/keepers on a fee-for-service basis or through some other means. For their work with the public Veterinary Services, CAHWs are usually remunerated on the basis of a contract (drawn up directly with them or with their supervisor).



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It is worth noting that, when governments procure services from the private veterinary workforce (e.g. veterinarians, VPPs, CAHWs), they may do so using a combination of public funds and private contributions from the producers who will benefit from the services.

In addition to providing basic animal health services and contributing to disease prevention and control activities, CAHWs can play a crucial role in local implementation of the One Health approach by working at field level and providing a basic explanation of its principles to their community. One of their key tasks in this respect is to raise awareness of and promote practices to prevent, zoonotic diseases, i.e. diseases transmissible between animals and humans, such as rabies. CAHWs can also play a role in promoting environmental health at the community level, for example by raising awareness of natural resource management, good pasture management practices and safe disposal of chemicals and medical waste. In this regard, CAHWs also play a vital role in developing, implementing and assessing locally tailored solutions by working with local stakeholders (rangers, forest guards, community-based human health workers, etc.).

WOAH recognises the complexity of health systems and the need for integrated approaches to address health challenges; consequently, One Health principles have been incorporated throughout the modules of these guidelines. CAHWs who are familiar with these principles are better prepared to strengthen the resilience of their communities against health threats that transcend species boundaries. By doing so, CAHWs contribute to improved health outcomes for humans, animals and the environment.

It should be noted that these guidelines are not prescriptive regarding the duration or structure of CAHW training. The roles and responsibilities of CAHWs may vary between Members, so training requirements and approaches will vary accordingly and should be based on local legislative, economic and social circumstances. Therefore, any WOA Member wishing to recognise and regulate CAHWs as a category of animal health personnel should define their own training requirements and make their own decisions regarding expected competencies and minimum training duration. These guidelines are intended to serve as a frame of reference to assist Members in developing training programmes that are suited to their individual contexts.



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WOAH is aware that for CAHW services to be impactful, Veterinary Services must adopt a context-based approach to CAHW training, ensuring that it is aligned with community beliefs, values and social norms. Curricula should address the needs of all community members, including young people, women and other marginalised groups. In addition, their content should be adapted to the specificities of the local area, e.g. the agroclimatic conditions, the type of animals raised, the animal health issues encountered and the animal production systems implemented (agrarian/small-scale, pastoralism, etc.).

These guidelines take a modular, competency-based approach that enables trainers to focus time and resources on the modules/competencies that are most relevant for their communities. Each module consists of core competencies, i.e. the minimum level of competency that CAHWs are expected to achieve and a set of additional competencies. This means that these guidelines can provide guidance for both initial and continuing CAHW training. Once the core competencies have been put into practice (under an appropriate system of CAHW supervision), trainers, in consultation with CAHWs and their communities, can choose which of the additional competencies would be most useful in their localities. Additional training can then be provided to one or more CAHWs as necessary (and as resources allow). This system enables CAHWs to make progress in their careers whilst also ensuring that the needs and demands of local animal owners/keepers are met.

These guidelines offer valuable recommendations which, if used as the basis of CAHW training programmes, will ensure that CAHWs attain a level of basic competency. In addition, they provide a frame of reference for regulatory bodies to enable them to assess CAHW qualifications. It is important to highlight, however, that each country retains autonomy in adopting these guidelines and adapting them to local needs and priorities. Implementation depends on government policies, resource availability and stakeholder engagement. Some countries may already have existing programmes or regulations for CAHWs, making the adoption of additional guidelines optional. However, widespread recognition and adoption of these guidelines will enhance the effectiveness and professionalism of CAHWs globally.

## B. Rationale of curriculum development

### WOAH's continuing commitment to providing training guidance for the veterinary workforce

WOAH recognises that, to maintain and enhance the quality and performance of Veterinary Services, it is essential that all categories of the veterinary workforce receive regular, up-to-date education. To this end, it has already produced competency guidelines and curriculum guidelines for veterinarians (WOAH 2012, WOA 2013) and for veterinary paraprofessionals (WOAH 2018, WOA 2019). These documents help to ensure that veterinary graduates and new VPPs are sufficiently prepared and that they begin their careers with the skills and knowledge necessary to work safely and effectively.

These documents aim to support Members in building and upgrading the skills of all qualified professionals in their veterinary workforce in order to ensure that they remain competent and that their skills continue to be relevant to the evolving demands of a changing world.

### Guidelines specific to CAHWs

As awareness of the need for more resilient, ready and responsive animal health workforces grows, it becomes increasingly important to understand the role that CAHWs play in animal health and production. Similarly, it is important to recognise that CAHWs play a role in supporting sustainable, good quality frontline animal health services and thus play a role in tackling several key UN Sustainable Development Goals.

In 2003, the WOA *ad hoc* group set up to consider the role of private veterinarians and VPPs in the provision of animal health services identified CAHWs as a subset of VPPs<sup>3</sup>. It recognised that CAHWs are likely to have had only short or informal training.

Indeed, **CAHWs generally do not share** the same profile as more formally trained cadres of VPPs and hence training for CAHWs requires a distinct approach.

- **CAHW candidates often have a lower education level and more variable literacy skills than VPP candidates.** Candidates are expected to be chosen by their communities and community members may not consider literacy levels/academic records to be important selection criteria.
- **CAHWs are not expected to be trained to the same level of knowledge and competencies as VPPs**, who are expected to attend longer and more intensive training. In countries where both CAHWs and VPPs are present, they usually have distinct scopes of activity.
- **CAHW training is usually delivered at local level, with locally adapted means. It takes a vocational approach, whereby sessions are delivered over an extended period** (sequenced training) – this allows participants to gain practical experience between sessions and still meet their other commitments and carry out their occupations.
- Initially, **CAHW training often emphasises practical**, ‘hands-on’ training over theoretical classroom lessons in order to ensure that CAHWs can carry out their required tasks with confidence. Theoretical knowledge is often added in subsequent training sessions using the sequenced approach.

In light of these specific features, WOA believes that the development of guidelines specifically intended for CAHW training is appropriate.

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<sup>3</sup> According to the definition of VPP in the Glossary of the Terrestrial Animal Health Code, the tasks for each category of VPP should be defined by the Veterinary Statutory Body on the basis of qualifications and training and in accordance with need.

## C. Objectives

WOAH is working to ensure that the important work of CAHWs achieves global recognition and that systems of training and regulation are improved and harmonised. In situations where workforce needs assessments indicate that CAHWs can enhance access to and delivery of, national veterinary services, WOAHA advocates for their inclusion in both the public and private sectors. Through collaboration with governments, international organisations and private stakeholders, WOAHA promotes the professionalisation and standardisation of CAHW roles and practices. It does this by developing guidelines, providing technical support and facilitating partnerships to enhance the effectiveness of CAHWs in disease surveillance, disease prevention and community engagement.

At present, training of CAHWs varies considerably within and between countries but, all too often, there is no agreed-upon curriculum, coordination between key stakeholders is limited and there is an absence of common nomenclature. This is leading to inconsistent performance within and across countries. Additionally, CAHWs are often found to be working with inadequate oversight and without a defined legal basis, which increases the risk of them operating outside the scope of their training. It can also provoke resentment or hostility among registered veterinarians and VPPs.

WOAH advocates for harmonised CAHW training as part of the broader objective of improving the overall performance of the veterinary workforce worldwide. The objective of these guidelines is two-fold:

- **To establish what CAHWs should know and what they should be able to do** (essential knowledge and competencies), the aim being to ensure that all CAHWs within a country have a common set of core competencies that are recognised by public and private animal health services.
- **To provide a framework** to enable VSBs or other appropriate regulatory agencies **to assess qualifications**, the aim being to create an opportunity to develop a system of CAHW regulation and licensing/certification.

The importance of regulating veterinarians and VPPs is emphasised in Chapter 3.4 of the WOAHA Terrestrial Animal Health Code, which indicates that a Member's veterinary legislation should provide a basis for creating a VSB or other regulatory entity to carry out that regulation. Therefore, any Member may exercise the prerogative to identify CAHWs as a category of animal health personnel to be recognised and regulated by the VSB.

These guidelines are aimed at the following users:

- **CAHW trainers and/or curriculum developers from the private, public or non-governmental sectors.** The guidelines will support the building of CAHW competency-based training programmes that are consistent with the needs of the local community and of the country as a whole.
- **VSBs and Veterinary Services** or any other **relevant regulating bodies.** The guidelines will enable these entities to assess CAHWs' training and competencies as a basis for providing formal recognition of CAHWs and integrating them into their national animal health system.



## D. How to use this document

The guidelines have been designed to be comprehensive and they aim to cover all the competencies that CAHWs may need over time. Therefore, when developing a training programme for CAHWs with the help of this document, users should first list the competencies that learners are expected to have gained at the end of the training and refer to the modules/units that are relevant to their needs.

This document is a competency-based curriculum: each competency corresponds to specific learning outcomes that will need to be achieved to ensure that the CAHWs attain the expected competencies.

The guidelines are structured around a total of 40 competencies (of which 22 are core and 18 are additional). These competencies are arranged within 11 training modules. The difference between core and additional competencies should be understood as follows:

- **Core competencies** are those that should be included in all CAHW training programmes, regardless of the tasks or functions they are expected to perform. As mentioned in the 'Objectives' section, these competencies promote confidence that all CAHWs possess a foundation of core knowledge and skills regarding basic animal health and production. These core competencies are displayed in light orange.
- **Additional competencies** are those that can be added to the set of core competencies based on specific functions CAHWs are expected to have (e.g. vaccination, sampling, meat inspection, etc.). Other additional competencies can be added as the CAHWs' work expands further. These competencies can be developed in different ways, e.g. through continued training or mentorship. The additional competencies are displayed in grey.

A few indications might be useful to guide the user across the document. As stated above, a core competency is one which all CAHWs should possess, but what that competency looks like in practice will vary depending on the individual responsibilities of the CAHW. Some example core competencies are included below to illustrate how they apply to all CAHWs, even those with a very limited scope of work:

### Example 1: Core competency 2.1.1

'CAHWs explain basic anatomy, physiology and behaviour in order to distinguish healthy from sick animals as a basis for client communication and for taking appropriate action(s).'

This competency does not mean that all CAHWs, even the ones with the most limited scope of work, should know the basic anatomy, physiology and behaviour of all animal species. It means that these concepts are to be learned for the animal species for which CAHWs are expected to provide services. WOAHA believes that being able to distinguish healthy from sick animals is a competency that all CAHWs should have, regardless of the work they are expected to perform (whether that be treatment, vaccination or disease surveillance).

### Example 2: Core competency 5.4.1

'CAHWs identify the appropriate preventive and control measures for relevant local diseases and determine the correct treatment.'

This competency does not mean that CAHWs are expected to list the preventive measures, control measures and treatments for all diseases of all animal species kept in their community, but they should be able to do this for the diseases that they will be expected to treat ('relevant local diseases'). WOAHP believes that, for instance, CAHWs trained to provide services to small ruminants should have a basic knowledge and understanding of the most important small ruminant diseases in their area so that they can readily detect the disease when present and take appropriate action to prevent further spread.

### **Example 3: Core competency 7.1.1**

'CAHWs explain the differences between the main types of veterinary medicinal products, their respective benefits, handling, usage and risks, including the development of antimicrobial resistance (AMR).'

In this example, CAHWs are not expected to understand the full range of VMPs that exist, but it is important that they understand the basic differences between the different types of VMPs that they are authorised to use (whether purchased through their approved supply chain or on the informal market). CAHWs should be able to inform animal keepers that vaccines and treatment medicines have very different objectives in animal health and that the products may be associated with certain risks that need to be managed.

The document is structured as a curriculum and therefore each competency is addressed in a specific learning unit<sup>4</sup> that includes several learning outcomes. The learning outcomes articulate what learners are expected to know and be able to do upon completion of a module and/or unit. They provide a clear framework for assessing the learner's progress and achievement, also guiding instructional design and informing curriculum development.

Learning outcomes, therefore, are particularly useful in developing a learning/training assessment plan: learners are deemed competent if they have successfully achieved all the learning outcomes

### **Example 4: Learning Outcome 1.1.1.A**

Explain, in simple terms, the legal and regulatory framework (including the reporting structure) within which CAHWs work.

As with all learning outcomes, this learning outcome 1.1.1.A must be understood as a result of the training, as learners must be able to explain to their trainer or evaluator the legal and regulatory framework (including the reporting structure) for their work.

Finally, users will notice that, when describing the competencies and learning outcomes, the guidelines make regular reference to 'basic', 'in simple terms' or 'through locally adapted means'. These terms highlight the fact that CAHWs are not expected to provide in-depth explanations and can demonstrate their understanding through any available means and not necessarily through writing (e.g. oral explanations and practical demonstrations). They also highlight the need for training to take account of the variable educational levels and literacy skills of CAHWs. Some of the concepts in the curriculum are complex, but they can be successfully passed onto CAHWs with the help of trainers skilled in participatory adult learning methodologies.

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<sup>4</sup> Except for 3.1.1 (core competency) and 3.1.2 (additional competency).

## II. Visual overview of the curriculum

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## II. Visual overview of the curriculum

### Competencies

Core Additional

MODULE		Competency number	Description	Number of learning outcomes
1	CAHW SCOPE OF WORK	1.1.1	CAHWs describe and apply the regulatory framework under which they work.	4
		1.2.1	CAHWs explain and apply the code of practice and ethical standards under which they must operate.	4
		1.3.1	CAHWs adopt an approach to their work that considers the social, economic, gender and cultural context of their community.	2
		1.4.1	CAHWs explain the importance of their work in animal health within the context of One Health and engage with key One Health partners within their community.	4
		1.5.1	CAHWs describe their role in participating in disaster management activities with relevant coordinating authorities.	3
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>17</b>
2	BASIC PRINCIPLES OF ANIMAL HEALTH	2.1.1	CAHWs explain basic anatomy, physiology and behaviour in order to distinguish healthy from sick animals as a basis for client communication and for taking appropriate action(s).	4
		2.2.1	CAHWs identify specific anatomical locations for administering substances and taking samples, in line with their scope of work and national regulations.	2
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>6</b>
3	ANIMAL HUSBANDRY AND PRODUCTION	3.1.1	CAHWs recognise the different elements of animal husbandry and production that can contribute to disease causation, decrease animal production, reduce welfare and negatively impact the health of the environment.	1
		3.1.2	CAHWs identify and advise on locally relevant practices related to: housing and shelter; nutrition and feeding; breeding; animal health management; transport; sanitation and hygiene, as they relate to animal disease, animal health, production, animal welfare and the health of the environment.	7
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>8</b>
4	BASIC CLINICAL AND HUSBANDRY PROCEDURES	4.1.1	CAHWs handle animals properly and use appropriate physical restraint techniques.	3
		4.2.1	CAHWs perform a basic clinical examination of the animal(s) with which they work and clearly communicate findings to relevant parties (the examination should include a basic individual animal and/or group history, a simple physical examination to identify signs of disease and an examination of the environment).	4
		4.3.1	In line with the regulatory framework and within the scope of their work, CAHWs accurately determine and safely administer the correct medication for relevant local diseases or syndromes and advise the animal keeper/owner on follow-up care, withdrawal periods and/or any other precautions that may need to be taken.	7
		4.4.1	CAHWs keep records of care and treatments to facilitate supervision.	1
		4.5.1	CAHWs safely perform basic clinical and husbandry procedures while adhering to the regulatory framework within which they work.	4
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>19</b>
5	BASIC ANIMAL DISEASE MANAGEMENT	5.1.1	CAHWs explain, in simple terms, the main categories of disease causation: infectious, parasitic, traumatic, metabolic/nutritional, toxicological and genetic.	2
		5.2.1	CAHWs describe and recognise the clinical signs of relevant local diseases and can report clinical findings when required.	2
		5.3.1	CAHWs identify potential zoonotic risks within their communities and explain to community members the precautions and practices that must be implemented to avoid transmission.	2
		5.4.1	CAHWs identify the appropriate preventive and control measures for relevant local diseases and determine the correct treatment.	4
		5.5.1	CAHWs provide appropriate care and treatment to support the welfare and recovery of animals showing common signs of disease (the cause of which may or may not be known).	3
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>13</b>

**Competencies**
■ Core    ■ Additional

MODULE		Competency number	Description	Number of learning outcomes
6	SAMPLING PROCEDURES	6.1.1	CAHWs safely collect, handle, label and record samples as instructed (including animal, feed, food and/or environmental samples).	3
		6.2.1	CAHWs package basic samples properly as per relevant guidelines and convey them as instructed.	2
		6.3.1	CAHWs effectively and confidentially relay test results to clients, along with any recommended actions or follow-up steps, in accordance with instructions provided by the supervising registered veterinarian, registered VPP or appropriate official.	2
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>7</b>
7	VETERINARY MEDICINAL PRODUCTS (VMPS)	7.1.1	CAHWs explain the differences between the main types of veterinary medicinal products, their respective benefits, handling, usage and risks, including the development of antimicrobial resistance (AMR).	3
		7.2.1	CAHWs explain the necessity of purchasing and using quality veterinary medicinal products.	4
		7.3.1	CAHWs safely store, handle and dispose of veterinary medicinal products and waste material to minimise human, animal and environmental health risks.	5
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>12</b>
8	POPULATION DISEASE MANAGEMENT	8.1.1	CAHWs explain the principles of disease transmission and the measures available for disease prevention and control/eradication, in particular the use of vaccines and how they work.	3
		8.2.1	CAHWs explain and demonstrate measures to minimise human and environmental contamination when working around animals or handling sick/dead animals.	3
		8.3.1	CAHWs participate in and support disease surveillance and reporting programmes and activities.	3
		8.4.1	CAHWs participate in and support the implementation of disease prevention and control activities, programmes and strategies.	3
		8.5.1	CAHWs keep activity records using locally adapted means to support disease reporting, surveillance and control/eradication programmes.	3
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>15</b>
9	KEEPING FOOD SAFE	9.1.1	CAHWs inform clients and communities of the basic principles of food hygiene applicable at household/farm level.	1
		9.2.1	CAHWs advise livestock keepers and consumers of animal products in their community regarding safe food hygiene practices for local slaughter, food processing, food storage and food consumption.	2
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>3</b>
10	ENGAGING WITH THE COMMUNITY	10.1.1	CAHWs provide relevant information on their scope of work and discuss that information with clients, communities and other relevant stakeholders.	3
		10.2.1	CAHWs recognise how gender and other social factors can impact the management of animals and know how to adjust their work accordingly and engage appropriately with different audiences about these factors as required.	1
		10.3.1	CAHWs select and use appropriate communication tools and approaches to deliver their messages to individuals or groups.	1
		10.4.1	CAHWs understand the government and non-government programmes that are relevant for animal owners/keepers and other community members and communicate the same to the community in which they work.	2
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>7</b>
11	RUNNING A SUSTAINABLE SERVICE	11.1.1	CAHWs explain why their service to the community can only be sustained if they are remunerated for their work, either on a fee-for-service basis or through some other means.	1
		11.2.1	CAHWs keep financial records, using locally adapted means, to evaluate the financial performance and profitability of their technical services.	2
		11.3.1	CAHWs apply basic principles of management in order to successfully operate a small business and sustain their activities.	6
		11.4.1	CAHWs apply the principles of networking and work cooperatively with other CAHWs, VPPs and veterinarians and other relevant partners, either directly or through professional associations, to promote the efficiency and impact of their work.	3
<b>TOTAL number of learning outcomes FOR THIS MODULE</b>				<b>12</b>

### III. Curriculum

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**MODULE 1. CAHWs SCOPE OF WORK**

On completing this module, learners are able to identify the activities they are permitted to engage in within the **social, economic, gender, cultural and legal and regulatory frameworks** that prevail in their region and/or country; they are aware of their roles and responsibilities in regard to their community and the Veterinary Services.

	<b>Unit 1.1</b>	<b>Regulatory framework for CAHWs</b>	
<b>Core</b>	Competency	<b>1.1.1</b>	<b>CAHWs describe and apply the regulatory framework under which they work.</b>
	Learning outcomes	<b>A</b>	Explain in simple terms the legal and regulatory framework, including the reporting structure, for CAHWs' work.
		<b>B</b>	Describe the roles and responsibilities that CAHWs have in their communities and to Veterinary Services.
		<b>C</b>	Explain the scope of activities that CAHWs are allowed to perform and what they are not allowed to perform.
		<b>D</b>	Describe situations that require referral to veterinarians, VPPs and/or appropriate officials.
	<b>Unit 1.2</b>	<b>Code of practice for CAHWs</b>	
<b>Core</b>	Competency	<b>1.2.1</b>	<b>CAHWs explain and apply the code of practice and ethical standards under which they must operate.</b>
	Learning outcomes	<b>A</b>	Describe both the code of practice that guides the work of CAHWs and the ethical standards that they are expected to follow.
		<b>B</b>	Demonstrate the application of ethical standards and animal welfare principles in animal handling and service provision.
		<b>C</b>	Demonstrate professional conduct and integrity in interactions with clients and communities.
		<b>D</b>	Explain the importance of confidentiality and data protection when handling client information.
	<b>Unit 1.3</b>	<b>Community context</b>	
<b>Additional</b>	Competency	<b>1.3.1</b>	<b>CAHWs adopt an approach to their work that considers the social, economic, gender and cultural context of their community.</b>
	Learning outcomes	<b>A</b>	Explain how CAHWs adapt their work to the social, cultural, economic and gender dynamics within the communities they serve.
		<b>B</b>	Adapt communication and service delivery approaches to address community-specific needs regarding livestock.
	<b>Unit 1.4</b>	<b>CAHWs and 'One Health'</b>	
<b>Additional</b>	Competency	<b>1.4.1</b>	<b>CAHWs explain the importance of their work in animal health within the context of One Health and engage with key One Health partners within their community.</b>
	Learning outcomes	<b>A</b>	Describe the impact of sickness in an animal (and/or group of animals) on its productivity and the implications of this for its owner or keeper.
		<b>B</b>	Explain, in simple terms, how CAHWs support basic animal health and production in their local community with examples of the societal benefits of animal health on food security, livelihoods and income generation.
		<b>C</b>	Describe, in simple terms, the concept of One Health and the role of CAHWs in the context of One Health.
		<b>D</b>	Identify and engage with key One Health partners within their community (e.g. human community health workers and environment rangers and their supervisors).
	<b>Unit 1.5</b>	<b>Role of CAHWs in disaster management</b>	
<b>Additional</b>	Competency	<b>1.5.1</b>	<b>CAHWs describe their role in participating in disaster management activities with relevant coordinating authorities.</b>
	Learning outcomes	<b>A</b>	Describe the potential roles of CAHWs in disaster management and response.
		<b>B</b>	If necessary, identify potential animal health risks during emergencies.
		<b>C</b>	Describe relevant infection control and biosecurity measures for animals and personnel in disaster situations.

**MODULE 2. BASIC PRINCIPLES OF ANIMAL HEALTH**

On completing this module, learners are able to describe the basic<sup>5</sup> principles of animal structure, functions and behaviour that allow them to differentiate sick from healthy animals and locate clinically relevant anatomical sites.

	<b>Unit 2.1</b>	<b>Identifying sick animals</b>	
<b>Core</b>	Competency	<b>2.1.1</b>	<b>CAHWs explain basic anatomy, physiology and behaviour in order to distinguish healthy from sick animals as a basis for client communication and for taking appropriate action(s).</b>
	Learning outcomes	<b>A</b>	Demonstrate knowledge of the basic anatomy and physiology of relevant species.
		<b>B</b>	Describe physical characteristics and behavioural traits of healthy and sick animals.
		<b>C</b>	Recognise the normal range of vital health parameters in animals.
		<b>D</b>	Distinguish between normal and abnormal tissue and/or organs.
	<b>Unit 2.2</b>	<b>Practical animal anatomy</b>	
<b>Core</b>	Competency	<b>2.2.1</b>	<b>CAHWs identify specific anatomical locations for administering substances and taking samples, in line with their scope of work and national regulations.</b>
	Learning outcomes	<b>A</b>	Locate the anatomical sites for administering medications, vaccines and other relevant substances.
		<b>B</b>	Locate anatomical sites for collecting samples, such as blood, nasal swabs, faeces and urine.

M1

M2

M3

M4

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M6

M7

M8

M9

M10

M11

<sup>5</sup> 'Basic' refers to the level of depth and breadth of knowledge that CAHWs are expected to have in animal health, considering the minimal educational background that can be expected from CAHWs and anticipating the range of primary animal health services that could be assigned to them.



**MODULE 3. ANIMAL HUSBANDRY AND PRODUCTION**

On completing this module, learners are able to recognise the factors that influence animal health, such as nutrition, genetics/breeding, environment and stress.

Learners gain detailed knowledge of important aspects of animal husbandry and production, including breeding, feeding, watering, housing and shelter and know how to provide general care for livestock and other animals to ensure that they remain productive.

	<b>Unit 3.1</b>	<b>Husbandry, welfare and production practices</b>	
<b>Core</b>	Competency	<b>3.1.1</b>	<b>CAHWs recognise the different elements of animal husbandry and production that can contribute to disease causation, decrease animal production, reduce welfare and negatively impact the health of the environment.</b>
	Learning outcomes	<b>A</b>	Describe how nutrition, genetics/breeding, housing/shelter, environment and stress influence animal health and production.
<b>Additional</b>	Competency	<b>3.1.2</b>	<b>CAHWs identify and advise on locally relevant practices related to: housing and shelter; nutrition and feeding; breeding; animal health management; transport; sanitation and hygiene, as those practices relate to animal disease, animal health, production, animal welfare and the health of the environment.</b>
	Learning outcomes	<b>A</b>	Explain, with examples, the importance of appropriate housing and shelter for the different types of animals kept in the area, to ensure animal welfare, safety and productivity.
		<b>B</b>	Explain the basic principles of nutrition and feeding in animal husbandry to optimise productivity and health, as relevant.
		<b>C</b>	Explain the basic principles of breeding in animal production, including the issues of inbreeding and non-adapted breeds and explain the techniques used to improve genetic traits in livestock.
		<b>D</b>	Explain how record-keeping, animal identification and traceability can improve animal health management and assist the Veterinary Services.
		<b>E</b>	Demonstrate proper handling and transportation techniques to ensure animal welfare and minimise stress to animals and handlers.
		<b>F</b>	Explain appropriate measures to maintain a clean and hygienic environment for animals.
<b>G</b>		Explain the importance of good animal husbandry practices for human and environmental health.	

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**MODULE 4. BASIC CLINICAL AND HUSBANDRY PROCEDURES**

On completing this module, learners are able to safely perform basic examinations, determine and administer basic treatment and perform basic clinical and husbandry procedures. Learners are also able to keep proper records of their clinical activities.

	<b>Unit 4.1</b>	<b>Handling and restraining animals</b>		
Core	Competency	<b>4.1.1</b>	<b>CAHWs handle animals properly and use appropriate physical restraint techniques.</b>	M1
	Learning outcomes	<b>A</b>	Recognise animal behaviour and body language to ensure safe and effective handling.	M2
		<b>B</b>	Demonstrate appropriate techniques for physically restraining animals during care and procedures, taking account of their species, size and temperament and with due consideration of their welfare.	
		<b>C</b>	Describe how to ensure the safety of both the animal owner and the handler/s during procedures.	
	<b>Unit 4.2</b>	<b>Examining animals</b>		M3
Core	Competency	<b>4.2.1</b>	<b>CAHWs perform a basic clinical examination of the animal(s) with which they work and clearly communicate findings to relevant parties (the examination should include a basic individual animal and/or group history, a simple physical examination to identify signs of disease and an examination of the environment).</b>	
	Learning outcomes	<b>A</b>	Collect relevant case history information from the animal owner or caretaker.	M4
		<b>B</b>	Conduct a systematic physical examination of the animal, including body condition assessment, recording of vital signs and evaluation of major body systems.	
		<b>C</b>	Perform environmental assessments of the animals' surrounding environment to identify potential health risks or contributing factors.	
		<b>D</b>	Record and communicate examination findings accurately and clearly to relevant parties.	
	<b>Unit 4.3</b>	<b>Performing basic treatment of animals</b>		M5
Core	Competency	<b>4.3.1</b>	<b>In line with the regulatory framework and within the scope of their work, CAHWs accurately determine and safely administer the correct medication for relevant local diseases or syndromes and advise the animal keeper/owner on follow-up care, withdrawal periods and/or any other precautions that may need to be taken.</b>	
	Learning outcomes	<b>A</b>	Explain the importance of administering the appropriate treatments with the correct dosage, route of administration, frequency and duration.	M6
		<b>B</b>	Identify the appropriate dosage, duration, route of administration and frequency of treatment for relevant local diseases or syndromes in relevant species.	
		<b>C</b>	Perform correct body weight estimations of animals to be treated using locally available means.	
		<b>D</b>	Calculate the right amount of veterinary medicinal product for the animals to be treated for specific local diseases.	M7
		<b>E</b>	Handle drug administration equipment appropriately to avoid harm to the animal, the owner, CAHWs and the environment.	
		<b>F</b>	Safely administer veterinary medicinal products using appropriate routes, techniques and procedures.	
<b>G</b>	Provide clear and accurate instructions to animal owners and keepers regarding treatment, follow-up care and precautions, including withdrawal times when and where appropriate.	M8		
	<b>Unit 4.4</b>	<b>Keeping clinical records</b>		
Core	Competency	<b>4.4.1</b>	<b>CAHWs keep records of care and treatments to facilitate supervision.</b>	
	Learning outcomes	<b>A</b>	Demonstrate their ability to keep records that allow supervisors to monitor their clinical services; records should include details of the care and treatment given, any follow-up actions taken and any advice provided to animal owners and keepers.	M9
	<b>Unit 4.5</b>	<b>Performing basic clinical and husbandry procedures</b>		
Additional	Competency	<b>4.5.1</b>	<b>CAHWs safely perform basic clinical and husbandry procedures while adhering to the regulatory framework within which they work.</b>	
	Learning outcomes	<b>A</b>	List the basic clinical procedures that CAHWs can safely and humanely perform without tranquilisation or anaesthesia.	M10
		<b>B</b>	Demonstrate proper techniques for performing first aid and husbandry interventions.	
		<b>C</b>	Perform the allowed basic clinical and husbandry procedures in a way that ensures the safety of animals, clients, themselves and the environment.	
		<b>D</b>	Apply appropriate obstetrical manipulations for normal deliveries and recognise the signs of dystocia.	M11

**MODULE 5. BASIC ANIMAL DISEASE MANAGEMENT**

On completing this module, learners are able to describe the different causes of diseases, particularly local diseases. Learners are also able to recognise relevant local diseases and conditions by their clinical signs and know whether the diseases also occur in humans. They are also able to provide appropriate supportive care to sick animals and advise on preventive measures for both animals and humans.

	<b>Unit 5.1</b>	<b>Disease types</b>	
Core	Competency	<b>5.1.1</b>	<b>CAHWs explain, in simple terms, the main categories of disease causation: infectious, parasitic, traumatic, metabolic/nutritional, toxicological and genetic.</b>
	Learning outcomes	<b>A</b>	Explain, in simple terms, the main categories and differences of disease causation: infectious, parasitic, traumatic, metabolic/nutritional, toxicological and genetic.
		<b>B</b>	List local examples of diseases and associated causes within each category in their area of work.
	<b>Unit 5.2</b>	<b>Disease recognition</b>	
Core	Competency	<b>5.2.1</b>	<b>CAHWs describe and recognise the clinical signs of relevant local diseases and can report clinical findings when required.</b>
	Learning outcomes	<b>A</b>	Describe the clinical signs associated with relevant local diseases.
		<b>B</b>	When required, document and report clinical findings fully and accurately.
	<b>Unit 5.3</b>	<b>Zoonotic risks and prevention</b>	
Core	Competency	<b>5.3.1</b>	<b>CAHWs identify potential zoonotic risks within their communities and explain to community members the precautions and practices that must be implemented to avoid transmission.</b>
	Learning outcomes	<b>A</b>	Identify potential zoonotic risks within their communities.
		<b>B</b>	Describe the modes of transmission for common zoonotic diseases in their communities and the precautions and practices that must be implemented to avoid transmission of the diseases between animals and humans.
	<b>Unit 5.4</b>	<b>Managing disease in local contexts</b>	
Core	Competency	<b>5.4.1</b>	<b>CAHWs identify the appropriate preventive and control measures for relevant local diseases and determine the correct treatment.</b>
	Learning outcomes	<b>A</b>	Identify feasible preventive measures, such as vaccination, strategic deworming and nutritional management, for relevant local diseases.
		<b>B</b>	Explain the appropriate control methods for each relevant local disease or syndrome.
		<b>C</b>	Identify feasible treatment options for relevant local diseases or syndromes.
		<b>D</b>	Explain, in simple terms, the importance of the different steps of optimised disease management: early detection, prompt treatment and follow-up care.
	<b>Unit 5.5</b>	<b>Basic supportive care and treatment</b>	
Core	Competency	<b>5.5.1</b>	<b>CAHWs provide appropriate care and treatment to support the welfare and recovery of animals showing common signs of disease (the cause of which may or may not be known).</b>
	Learning outcomes	<b>A</b>	Recognise common syndromes or clinical signs of disease, such as diarrhoea, recumbency, snotty nose or difficult breathing.
		<b>B</b>	Demonstrate how to provide appropriate basic supportive care and treatment and comfort measures to animals exhibiting these common signs.
		<b>C</b>	Explain the appropriate changes in husbandry and environment that may support recovery and may prevent additional cases.

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**MODULE 6. SAMPLING PROCEDURES**

On completing this module, learners are able to effectively and safely collect, label and package samples from animals and the environment as directed. They are aware of the importance of obtaining and relaying test results and related recommended actions to clients in a timely fashion.

	<b>Unit 6.1</b>	<b>Sample collection</b>	
Additional	Competency	<b>6.1.1</b>	<b>CAHWs safely collect, handle, label and record samples as instructed (including animal, feed, food and/or environmental samples).</b>
	Learning outcomes	<b>A</b>	List types of samples that can be collected within their scope of work.
		<b>B</b>	Perform sample collection using appropriate and safe techniques for different types of samples as relevant.
		<b>C</b>	Properly label and record samples, including relevant information such as date, time, location and animal identification.
	<b>Unit 6.2</b>	<b>Sample submission</b>	
Additional	Competency	<b>6.2.1</b>	<b>CAHWs package basic samples properly as per relevant guidelines and convey them as instructed.</b>
	Learning outcomes	<b>A</b>	Explain the importance of packaging samples properly to maintain their quality and safety during transit and storage.
		<b>B</b>	Follow appropriate packaging, labelling and submission protocols as per relevant guidelines.
	<b>Unit 6.3</b>	<b>Communicating results</b>	
Additional	Competency	<b>6.3.1</b>	<b>CAHWs effectively and confidentially relay test results to clients, along with any recommended actions or follow-up steps, in accordance with instructions provided by the supervising registered veterinarian, registered VPP or appropriate official.</b>
	Learning outcomes	<b>A</b>	Explain the importance of timely and accurate communication of test results to clients.
		<b>B</b>	Demonstrate capacity to relay basic results to clients, along with any recommended actions or follow-up steps, in accordance with instructions provided by the supervising registered veterinarian, registered VPP or appropriate official.

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**MODULE 7. VETERINARY MEDICINAL PRODUCTS**

On completing this module, learners are able to list different types of veterinary medicinal products (VMPs) that fall under their scope of work, explain the importance of using quality VMPs and safely store, handle and dispose of VMPs.

<b>Unit 7.1</b>		<b>Types of veterinary medicinal products</b>	
<b>Core</b>	Competency	<b>7.1.1</b>	<b>CAHWs explain the differences between the main types of veterinary medicinal products, their respective benefits, handling, usage and risks, including the development of antimicrobial resistance (AMR).</b>
	Learning outcomes	<b>A</b>	List the different types of veterinary medicinal products (antibiotics, anthelmintics, vaccines, analgesics, anti-inflammatories, endo- and ecto-parasiticides and ethnoveterinary medicines) and explain what they are used for in the animals that fall under the scope of work of CAHWs.
		<b>B</b>	Identify the potential risks, including side effects, contraindications and precautions associated with each type of veterinary medicinal product.
		<b>C</b>	Provide a basic explanation of AMR and how to limit its development.
<b>Unit 7.2</b>		<b>Quality of veterinary medicinal products</b>	
<b>Core</b>	Competency	<b>7.2.1</b>	<b>CAHWs explain the necessity of purchasing and using quality veterinary medicinal products.</b>
	Learning outcomes	<b>A</b>	Explain the importance of purchasing and using quality veterinary medicinal products from reliable sources.
		<b>B</b>	List the sources/channels for obtaining quality veterinary medicinal products.
		<b>C</b>	Describe potential signs of counterfeit or substandard veterinary medicinal products, such as suspicious packaging, labelling or product appearance.
<b>D</b>		Identify the potential risks and consequences of using counterfeit or substandard veterinary medicinal products and communicate the same to the animal owners and keepers.	
<b>Unit 7.3</b>		<b>Managing veterinary medicinal products</b>	
<b>Core</b>	Competency	<b>7.3.1</b>	<b>CAHWs safely store, handle and dispose of veterinary medicinal products and waste material to minimise human, animal and environmental health risks.</b>
	Learning outcomes	<b>A</b>	Explain and demonstrate proper storage conditions for veterinary medicinal products, noting the importance of temperature control for temperature-sensitive products such as vaccines and antibiotics.
		<b>B</b>	Explain the consequences of not storing veterinary medicinal products correctly.
		<b>C</b>	Demonstrate safe handling practices for veterinary medicinal products.
		<b>D</b>	Explain how to safely dispose of veterinary medicinal products and waste materials such as used syringes, needles and expired products, under local conditions.
<b>E</b>	Explain the potential human, animal and environmental health risks associated with improper disposal of veterinary medicinal products and waste materials.		

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<b>MODULE 8. POPULATION DISEASE MANAGEMENT</b>	
<p>On completing this module, learners are able to understand the principles of disease mitigation, biosecurity, surveillance, prevention, control and eradication and are able to help optimise the health, welfare and productivity of groups or populations of animals.</p> <p>Learners also are able to strengthen biosecurity at farm and community level by proactively providing information on managing the health of animal populations and on preventing environmental contamination and disease transmission (both between animals and from animals to humans).</p>	

	<b>Unit 8.1</b>	<b>Principles of disease prevention and control</b>	
Core	Competency	<b>8.1.1</b>	<b>CAHWs explain the principles of disease transmission and the measures available for disease prevention and control/eradication, in particular the use of vaccines and how they work.</b>
	Learning outcomes	<b>A</b>	Explain the principles of disease transmission, including modes of transmission (direct, indirect, vector-borne) and factors that contribute to disease spread, including the potential role of wildlife in the transmission of some diseases.
		<b>B</b>	Describe available measures and strategies for disease prevention and control/eradication, including vaccination, biosecurity measures and vector control for relevant diseases.
		<b>C</b>	Explain, in simple terms, how vaccines work and how they play a role in preventing infectious diseases.
	<b>Unit 8.2</b>	<b>Worker safety and responsibility</b>	
Core	Competency	<b>8.2.1</b>	<b>CAHWs explain and demonstrate measures to minimise human and environmental contamination when working around animals or handling sick/dead animals.</b>
	Learning outcomes	<b>A</b>	Explain the risks of disease transmission when working with animals, including the risk of transmission between animals and humans (including themselves) and the risk from environmental contamination and explain how to prevent further infections.
		<b>B</b>	Describe appropriate biosecurity practices to prevent infection of other animals and humans and environmental contamination when working with animals.
		<b>C</b>	Demonstrate safe handling practices, transportation and disposal methods for animal carcasses and waste materials, including the correct utilisation of personal protective equipment (PPE).
	<b>Unit 8.3</b>	<b>Participation in disease surveillance and reporting</b>	
Additional	Competency	<b>8.3.1</b>	<b>CAHWs participate in and support disease surveillance and reporting programmes and activities.</b>
	Learning outcomes	<b>A</b>	Define disease reporting and surveillance and explain why they are important activities for effective disease prevention and control.
		<b>B</b>	List the relevant reporting and surveillance activities in which CAHWs might be engaged in regard to existing disease control programmes in the CAHWs' area (e.g. census data collection, application of animal identification devices, recording clinical signs, sample collection or reporting disease outbreaks).
		<b>C</b>	Accurately perform relevant/assigned reporting and surveillance activities (e.g. data collection).
	<b>Unit 8.4</b>	<b>Participation in disease prevention and control</b>	
Additional	Competency	<b>8.4.1</b>	<b>CAHWs participate in and support the implementation of disease prevention and control activities, programmes and strategies.</b>
	Learning outcomes	<b>A</b>	Explain the benefits of preventive measures and disease control/eradication in animal populations.
		<b>B</b>	Describe the disease prevention and control/eradication activities in which CAHWs are expected to take part, in their work area (e.g. community outreach and extension, animal identification, vaccination, vector control, culling).
		<b>C</b>	Perform the tasks assigned for disease prevention and control/eradication activities, as part of the programmes and strategies in their area.
	<b>Unit 8.5</b>	<b>Recording activities</b>	
Additional	Competency	<b>8.5.1</b>	<b>CAHWs keep activity records using locally adapted means to support disease reporting, surveillance and control/eradication programmes.</b>
	Learning outcomes	<b>A</b>	Explain to animal owners/keepers the importance of keeping accurate and up-to-date activity records.
		<b>B</b>	Use logbooks, registers, digital tools or any other locally adapted means that may be required to record activities.
		<b>C</b>	Record information relevant to animal related interventions and identification.

**MODULE 9. KEEPING FOOD SAFE**

On completing this module, learners are able to explain the basic principles of food hygiene as they relate to primary production systems and explain safe food hygiene practices for local slaughter, food processing, food storage and food consumption. They can then provide appropriate advice to clients and communities.

	<b>Unit 9.1</b>	<b>Safe food of animal origin</b>	
Additional	Competency	<b>9.1.1</b>	<b>CAHWs inform clients and communities on the basic principles of food hygiene applicable at household/ farm level.</b>
	Learning outcomes	<b>A</b>	Explain the basic principles of food hygiene to ensure safety and quality. These include: proper handling, prevention of cross-contamination, equipment cleanliness, sanitation and storage of animal-sourced food (e.g. milk, eggs) and animal by-products at the primary production level (i.e. on farms).
	<b>Unit 9.2</b>	<b>Safe food handling and preparation</b>	
Additional	Competency	<b>9.2.1</b>	<b>CAHWs advise livestock keepers and consumers of animal products in their community regarding safe food hygiene practices for local slaughter, food processing, food storage and food consumption.</b>
	Learning outcomes	<b>A</b>	Explain good techniques and hygiene practices that should be implemented during the slaughter and processing of animals at the local community level, including procedures for humane slaughter, examination for obvious signs of disease before and after slaughter, meat/product handling, cleaning practices and sanitary disposal of waste.
		<b>B</b>	Provide advice regarding the safe processing and handling of food and other products of animal origin at household level (e.g. correct cooking temperatures, prevention of cross-contamination, proper preservation methods) and inform household members of the risks of handling or consuming products from sick animals or animals that have died from disease.

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**MODULE 10. ENGAGING WITH THE COMMUNITY**

On completing this module, learners are able to recognise the importance of community engagement and communicate effectively with clients and partners about achieving good health and productivity in their animals.

Learners are able to make effective use of communication skills and tools to build a sustainable service delivery enterprise at community level.

	<b>Unit 10.1</b>	<b>Communicating effectively</b>	
Core	Competency	<b>10.1.1</b>	<b>CAHWs provide relevant information of their scope of work and discuss that information with clients, communities and other relevant stakeholders.</b>
	Learning outcomes	<b>A</b>	Explain how to deliver information related to their scope of work to clients, communities and relevant stakeholders.
		<b>B</b>	Use presentation skills and facilitation techniques to engage and educate diverse audiences within their communities.
		<b>C</b>	Describe the basic principles of community engagement and explain how community participation can ensure the success of coordinated disease surveillance, prevention and control programmes.
	<b>Unit 10.2</b>	<b>Working with all people</b>	
Core	Competency	<b>10.2.1</b>	<b>CAHWs recognise how gender and other social factors can impact the management of animals and know how to adjust their work accordingly and engage appropriately with different audiences about these factors as required.</b>
	Learning outcomes	<b>A</b>	Adapt CAHW work practices and communication strategies to promote gender equality and social inclusivity in animal health and husbandry practices and services.
	<b>Unit 10.3</b>	<b>Communication tools and approaches</b>	
Additional	Competency	<b>10.3.1</b>	<b>CAHWs select and use appropriate communication tools and approaches to deliver their messages to individuals or groups.</b>
	Learning outcomes	<b>A</b>	Identify and use appropriate communication tools and approaches for delivering messages to individuals or groups.
	<b>Unit 10.4</b>	<b>Supporting access to government and other programmes</b>	
Additional	Competency	<b>10.4.1</b>	<b>CAHWs understand the government and non-government programmes that are relevant for animal owners/keepers and other community members and communicate the same to the community in which they work.</b>
	Learning outcomes	<b>A</b>	Communicate information regarding relevant programmes, in a clear and understandable manner, to existing and potential animal owners/keepers and the rest of the community.
		<b>B</b>	Explain how CAHWs can provide guidance and support to animal owners and keepers in accessing and utilising relevant government and other programmes.

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**MODULE 11. RUNNING A SUSTAINABLE SERVICE**

On completing this module, learners are able to effectively explain why their services should be remunerated or supported in other ways to ensure continued provision of their services. In addition, they are able to understand how to ensure their businesses are viable, how to keep financial records and, where possible, work with other organisations and programmes to strengthen their services.

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	<b>Unit 11.1</b>	<b>Fair compensation for services</b>	
Core	Competency	<b>11.1.1</b>	<b>CAHWs explain why their service to the community can only be sustained if they are remunerated for their work, either on a fee-for-service basis or through some other means.</b>
	Learning outcomes	<b>A</b>	Explain how CAHWs can communicate the value of their services to animal owners/keepers, employers and the community by clearly explaining the necessity for fair remuneration to sustain their provision of services.
	<b>Unit 11.2</b>	<b>Keeping financial records</b>	
Additional	Competency	<b>11.2.1</b>	<b>CAHWs keep financial records, using locally adapted means, to evaluate the financial performance and profitability of their technical services.</b>
	Learning outcomes	<b>A</b>	Record income and expenses using locally adapted means related to their business activities, including consultations, sales, operational costs and investments.
		<b>B</b>	Demonstrate the use of financial records to evaluate the financial benefits of their technical services.
	<b>Unit 11.3</b>	<b>Managing a successful service</b>	
Additional	Competency	<b>11.3.1</b>	<b>CAHWs apply basic principles of management in order to successfully operate a small business and sustain their activities.</b>
	Learning outcomes	<b>A</b>	Demonstrate skills in planning, organising, financing and prioritising their services and business activities.
		<b>B</b>	Demonstrate knowledge of inventory management and of sourcing and storing equipment, products and supplies.
		<b>C</b>	Describe how to apply maintenance practices to ensure the functionality and longevity of equipment and transport means.
		<b>D</b>	Describe how to apply principles of cold chain management when appropriate, ensuring the quality and safety of temperature-sensitive products.
		<b>E</b>	Explain how to properly establish the price of a service and/or product, taking into account the true costs involved, in order to ensure that costs can be recovered and that services can be sustained.
<b>F</b>	Describe how to apply effective communication and problem-solving skills to address client concerns and ensure customer satisfaction.		
	<b>Unit 11.4</b>	<b>Value of working cooperatively</b>	
Additional	Competency	<b>11.4.1</b>	<b>CAHWs apply the principles of networking and work cooperatively with other CAHWs, VPPs, veterinarians and other relevant partners either directly or through professional associations to promote the efficiency and impact of their work.</b>
	Learning outcomes	<b>A</b>	Explain the value of participating in continuous professional development as a means of ensuring that CAHW services remain up to date.
		<b>B</b>	Demonstrate effective communication and negotiation skills in building relationships and partnerships.
		<b>C</b>	Explain how membership in relevant associations or networks can provide access to benefits such as bulk purchasing of VMPs and equipment, coordination of field activities, peer-training or peer-feedback sessions, improved communication with the public and greater recognition of the value of their work.

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## IV. Annex 1

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## Tools for organising CAHW training programmes

The items below are considered key elements in the organisation of CAHW training programmes:

- **Training of trainers, mentors and supervisors:** They must be properly selected and trained in approved training/mentoring and supervision techniques (adapted to CAHWs).
- **Selection of CAHW candidates:** Ideally, they should meet certain requirements<sup>6</sup>:
  - Be a member of the local community;
  - Be engaged in or interested in livestock keeping;
  - Be able to read and write or have the capacity to communicate through other means;
  - Have some business, farm management and leadership skills;
  - Have some access to credit for scaling up their work within their communities.
- **The training location:** It is preferable to choose a training site located within the area where the CAHW candidate will be working. There should be reliable access to live animals for practical training and opportunities to interact with local animal owners and keepers.
- **The content of training courses:** These guidelines can serve as a basis of developing the content of CAHWs training courses, noting that the guidelines suggest a group of core competencies that should be included in all CAHWs training programmes, as well as additional competencies which can be added to the curriculum to build a training programme that is responsive to the specific needs articulated by the community.
- **Duration of the training:** Sessions should be organised over periods and durations that are compatible with the secondary activities of future CAHWs. Dividing the programme into several sessions has the advantage of giving learners time to integrate their newly acquired knowledge into their practice. It also prevents participants with family and work responsibilities from being absent for too long.
- **Pedagogical approaches:**
  - Prioritise participative learning methods and practical teaching in the field; limit theoretical classroom sessions.
  - Prioritise visual demonstrations and practical hands-on training rather than the written word, as literacy levels can vary greatly from one area to another. Make use of pictograms and films and use real animals and real objects.
  - Ensure that the visuals used are clearly understood by the learners (beware of differences in the interpretation of drawings) by asking them about their understanding of the message conveyed by the drawings.
  - Include assessments at the end of training to ensure that learning outcomes have been satisfactorily achieved.
- **Refresher training sessions:** These sessions help CAHWs to sharpen existing competencies and learn new ones, recognise and correct poor habits and adapt to changing circumstances.
- **Establishment of CAHWs' networks:** Networks enable learners to stay in contact after the training course and share their experiences of implementing newly learned practices. In addition, a WhatsApp, Viber, Skype or Facebook group can be a useful tool to encourage ongoing exchanges between CAHWs and trainers.
- **Financial and material incentives for CAHW learners:** These compensate for the economic losses incurred by learners caused by their absence from home during training periods.
- **Training programme evaluation:** It is vital to ensure that training has a real impact on practices. Indicators are needed to measure the extent to which CAHWs are applying their learning and competencies in daily practice.

<sup>6</sup> Adapted from Hoots, C. (2022). A literature review of community-based animal health workers in Africa and Asia with recommendations for improved practices. *Vétérinaires Sans Frontières International (VSF International)*. Brussels, Belgium.

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