Veterinary Paraprofessional Competency Framework Toolkit

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Foreword

This toolkit was developed with the support of the project *Sustainable Business in Animal Health Service Provision through training for Veterinary Paraprofessionals* implemented by the European Commission for the Control of Foot-and-Mouth Disease (EuFMD) of the Food and Agriculture Organization of the United Nations (FAO), in partnership with the World Veterinary Association (WVA) and HealthforAnimals.

This toolkit provides guidance, and details the step-by-step process for developing a country-specific animal health Veterinary Paraprofessional (VPP) competency framework. The described methodology was piloted in 2022 in Nigeria, South Africa, Uganda. The lessons learned from the pilot experience are incorporated into this toolkit to provide a clear methodology for other countries wishing to develop their own tailored competency framework for VPPs.

Acknowledgements

Abbreviations

CVO	Chief Veterinary Officer
EuFMD	European Commission for the control of Foot-and-Mouth Disease
FAO	Food and Agriculture Organization of the United Nations
ICT	Information and Communication Technology
VPP	Veterinary Paraprofessional
VSB	Veterinary Statutory Body
WOAH	World Organisation of Animal Health
WVA	World Veterinary Association

Introduction

The effective delivery of animal health services requires a well-trained cadre of veterinary professionals and paraprofessionals working in both the public and private sectors. Competency-based approaches are recognized as an effective method for ensuring outcome-based training aligned to the knowledge, skills and attitudes required to perform the tasks of a given profession. Thus, in 2018, the World Organization for Animal Health (WOAH) published *Competency Guidelines for Veterinary Paraprofessionals and Curricula Guidelines for Veterinary Paraprofessionals*. These guidelines cover three tracks of Veterinary Paraprofessionals (VPP): animal health, veterinary public health and laboratory diagnosis, and they identify 16 key spheres of activity in which VPPs may be involved. Each sphere of activity describes between two and five relevant competencies. These competencies are defined at the level of knowledge and abilities a VPP should have.

This toolkit presents a methodology for developing a behaviour-based competency framework tailored specifically to the role of animal health VPPs within a given country. The methodology builds on the WOAH guidelines by recognizing increasing levels of competency from beginner through to the intermediate and advanced competency levels. Each competency identifies a number of behavioural indicators. For competencies that include "know" as an action verb in the WOAH guidelines, the behaviours define competencies that are observable and demonstrate a VPP's application of that knowledge. For example, the WOAH Competency 1.1 is "VPPs know the fundamentals of animal science including the care, nutrition and reproduction of animal species relevant to the country and region." In the behaviour-based tool, "describe care, nutrition and reproduction of animal species of region" and "provide advice on husbandry, nutrition and production" indicate what the VPP can do with that knowledge.

The framework aims to support capacity development of VPPs working as animal health service providers with livestock farmers who may be smallholder farmers or pastoralists of more commercial livestock enterprises. The following stakeholders can use the tool:

- VPPs in order to identify their current competency level for a set of competencies and to define personalized continual professional development learning objectives;
- VPP training and continuous professional development providers in order to identify learning objectives for a training and to focus on a particular competency or skill set; and
- VPP mentors and supervisors in order to assess VPP competencies, identify areas for improvement and provide tailored support for VPP capacity development.

What are the steps for developing the VPP competency framework?

A draft competency framework tool, which expands on the WOAH's *Competency Guidelines for Veterinary Paraprofessionals* has been prepared.

The WOAH guidelines consider mostly public good functions of VPPs and may not reflect all those that VPPs do in a country context. For this reason, the draft competency framework was expanded to include additional competencies that private sector VPPs need, such as business skills. The expanded draft competency framework also reflects additional skills needed as the profession evolves, such as Information and Communication Technology[1] skills and One Health approaches. Furthermore, the competency framework was reviewed with a gender lens in order to ensure gender sensitivity. The draft competency framework should be further adapted for specific country use through several country workshops with key stakeholders. This is to ensure that the tool reflects the legislation, language and working environment of the country in which it is to be used. The tool is a living document and can be updated as needed. Below is an outline of the ten-step process that details this adaptation process. For each step, there is a description as well as tips and links to resources or templates

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[1] Information and Communication Technology (ICT) refers to all communication technologies, including the internet, cellphones, computers and other media applications enabling users to access, retrieve, store, transmit and manipulate information in a digital form

Step 1: Agreement with Veterinary Statutory Body and Competent Authority

DESCRIPTION

If the initiator of this process is external to the Veterinary Statutory Body (VSB), for example, a project, VPP association or other stakeholder, it is important to present the process to the VSB and the Office of the Chief Veterinary Officer (CVO). This is to explain the purpose of the VPP competency framework, agree on the process, clarify their role which is to validate the final output, and their expectations.

TIP

The agreement can be formalized through a written agreement outlining the process and responsibilities of each stakeholder.

Step 2: Establish VPP competency framework working group

DESCRIPTION

This working group will be responsible for adapting the draft framework and producing a final country-specific document for validation. A working group of about 20 members is advisable, so that during the workshop(s) the working groups made up of four subgroups of five members each can review the competencies in parallel. As a guideline, members can include VPPs, field veterinarians, representatives of the national VPP and Veterinary Association, members of the Veterinary Statutory Body, Official Veterinary Services, Training institutions, National Education Board or equivalent, Farmer representatives and actors from the veterinary pharmaceutical sector and research institute representatives.

TIPS

Important criteria for selection of the working group members:

- The majority of members should be VPPs as they are best acquainted with the roles and competencies VPPs require.
- Ensure both public and private sector VPPs and veterinarians are included.
- Ensure gender parity.
- Members should be committed and willing to complete the pre- and post-workshop homework, participate actively and attend all workshops.

Step 3: Review VPP competency framework template

DESCRIPTION:

A **draft template** has been established which expands on the WOAH competency guidelines for VPPs to include additional skills, such as business skills, Information Communication Technology skills, One Health and gender-sensitive behaviours. For each competency, a list of behaviour indicators encompasses the skills, knowledge and attitude that an individual should demonstrate at a given level for that competency. These are observable behaviours: For example, how would someone watching the VPP at work see that they possess a certain skill or knowledge? Behaviours are sorted into beginner, intermediate and advanced levels to recognize increasing competency.

Example behavioural indicators for the competency veterinary products:

- Beginner level: Select common products to treat, manage and/or prevent common diseases.

- Intermediate level: Discuss adverse effects on public health, such as withdrawal times and antimicrobial resistance.

- Advanced level: Participate in antimicrobial usage and resistance surveillance.

Prior to introducing this template to the working group, the lead facilitator should conduct an initial review and adaptation of the template. Throughout this process, the number of competency levels may be revised; the number of competencies might increase or decrease; and some of the described behaviours might be modified, removed or added.

This becomes Draft 1.

TIPS:

- Review the template with the legislation covering VPPs within the country: Are there any behaviours that go beyond the legal scope for VPPs in this country?

- Review the template with day One VPP competencies (if they are defined at the country level): Are these behaviours reflected at the beginner level?

- Review the template with respect to the language, work environment and animal health context of the country: For example, behaviour examples can be adapted to more relevant examples for the production setting of the country.

- Review if all competencies are relevant, or if some should be merged. The same goes for the behaviour levels: In the template there are three; however, this could be reduced to two, for example.

- Review with a **gender lens** specific to the context of the country.

Step 4: Plan the workshop(s)

DESCRIPTION:

The purpose of the workshop is to review each competency in order to adapt to the country-specific context. For each competency, the working group should follow the same process in subgroups:

- review competency definition;
- review competency importance statement;
- brainstorm competency behaviours;
- sort competency behaviours according to level; and
- compare with draft framework behaviours and finalize.

It is advisable that at least two subgroups review each competency in detail. Some competencies can be reviewed three times, and then in plenary, the overall working group validates the revised competencies. The format and length of the workshop(s) can be adapted according to funding resources and the availability of the participants.

TIPS:

- Decide if a one-week-long workshop or two shorter workshops should be held. If many private sector participants are involved, it may be difficult for them to make themselves available for a full week. In some countries, longer workshops may negatively affect women's participation rates. However, if participants have to travel long distances, one longer workshop may be preferable in order to reduce travel time.

- Check the availability and preferred dates of participants well in advance, and make sure the workshop does not coincide with major events or national public holidays in order to optimize participation rates.

- The workshop plan can be adapted according to the number of competencies and number/duration of the workshop(s): Example plans are included **here**.

- Prepare a **group chart** assigning participants to working groups and competencies to the working groups: Consider repartition of professional roles across the groups, geographical distribution, with at least two VPPs per group and gender parity in order to ensure that diverse viewpoints are considered and open discussion is encouraged.

- Assign a facilitator per working group and ensure gender parity among facilitators.

Step 5: Prepare worksheets and participants' packages

DESCRIPTION:

In order to maximize the quality of the discussions during the workshops, participants must come prepared having reviewed in advance a certain number of worksheets:

Worksheet 1: on number and description of competency levels; and

Worksheet 2: for each competency to be reviewed by subgroup

If there will be only one workshop, the participants should receive one worksheet package prior to the workshop. If there are two workshops, the participants will receive a first package prior to the first workshop and a second package after this workshop with the remaining competencies to be covered.

Not every participant will be involved in a deep exploration of every competency. However, during the final review process, all the participants will get to revise the competencies reviewed by the other subgroups.

For example, participant N°1 could review the following competencies:

WORKSHOP ONE **HOMEWORK PACKAGE ONE**	Competency Levels
	Veterinary Products
	Animal Production/Husbandry
	Use and Management of Equipment and Facilities
	Laboratory and Field Testing
WORKSHOP TWO **HOMEWORK PACKAGE TWO**	Food Hygiene
	Herd Health Management
	Veterinary Legislation, Policies, Ethics and Professionalism
	Communication skills

TIPS:

- Prepare **worksheet 1 on competency levels** and **worksheet 2 for each competency** by copying and pasting the competency title, definition and importance statement from the reviewed competency framework.
- Prepare a table overview of the worksheet package per participant (example above).
- Assemble the worksheet packages per participant.
- Prepare **worksheet 3** and **worksheet 4** to be used during the workshop. These build on the pre-workshop worksheets and include additional sections for sorting the behaviours and comparing them with the draft competency framework.
- Example worksheets are provided in the appendixes of this document. Templates to prepare the worksheets are provided in the above hyperlinks.

Step 6: Briefing meeting (two weeks prior to workshop)

DESCRIPTION

It is recommended to hold a virtual briefing meeting with the working group in order to:

- Explain what a competency framework is and what purpose it serves.
- Introduce the process for developing the competency framework and the working group's role.
- Display a draft competency as an example of what will be covered during the workshop.
- Explain the process of reviewing a competency and how to define a behaviour.
- Present the overview of competencies included in the framework.
- Present the pre-workshop homework packages.

TIP

Example PowerPoint for the briefing meeting available **here**

Step 7: Homework prior to workshop (two weeks prior to workshop)

DESCRIPTION

Send out the homework packages immediately after the briefing meeting. Request that participants bring a completed copy of the worksheet to the workshop with them.

TIP

Request that the participants return **worksheet 1** and **worksheet 2** by email prior to the workshop. This gives an added incentive to complete them in advance of the workshop.

Step 8: Adaptation Workshop(s)

DESCRIPTION

The workshop should begin with an introduction of the facilitators and the participants. After this, the lead facilitator presents the purpose and objectives of the workshop.

Step 1: Present overview of competencies

It is important to present an overview of the competencies included in the competency framework before participants delve into the details of individual competencies. This will help ensure that behaviours are allocated to the correct competency and that duplication is avoided. Some competencies will have similar behaviours, and consensus would be required in order to decide under which competency the behaviour falls. Throughout the process of the workshop, the working group might also decide it would be more appropriate to merge certain competencies where there is quite a bit of overlap/synergies or to split others in two.

Step 2: Review the competency levels

The competency level definitions should be reviewed:

- Do three competency levels meet the needs? Should more be added, or would two suffice?
- Do the definitions of the levels reflect what you have experienced? Do they require clarification or modification? Could other criteria such as years in practice or graduation from an accredited school be added?

Step 3: Review individual competencies

Follow a five-step process for reviewing individual competencies as indicated in the table below.

1. Review competency definition
Does this definition reflect how VPPs use this competency? How might the competency definition need to be modified to better reflect the application of this competency?
2. Review competency importance statement
Does this importance statement reflect the importance of this competency in the country? How might the statement need to be modified to better reflect the importance of this competency in the country?
3. Brainstorm competency behaviours
Share brainstorming and develop a joint list of activities that a VPP should be able to do for that competency. As the group reviews, participants might highlight certain activities to be removed and put under another core competency

4.Sort competency behaviours according to level

Discuss the list and sort the behaviours according to the number of levels the working group has agreed on.

5.Compare with draft framework behaviours and finalize

Compare the list of activities to the behaviours listed in the draft framework.

Consider the following:

- Are all the activities represented in the listed behaviours? What should be added? What behaviours should be removed? Reasons may include scope of practice.
- Certain behaviours cross competencies: At this point, do not worry if you think an activity could be covered somewhere else; just note that comment, but add it to the competency as well.
- Are the behaviours allocated to the correct competency level? What needs to change?
- Is there enough of a difference between competency levels to allow one to be able to determine if someone is at level one or two?

The facilitator role for each subgroup is to:
- Guide the discussion ensuring that all members of the working group can express their opinion and avoid having one individual or group monopolize the discussion.
- Take notes completing the worksheets based on the discussion.
- Prompt participants and ask questions to ensure that the behaviour indicators are formulated as observable.

Example of formulating a behavioural Indicator

Initial behaviour: appreciates the importance of biosecurity.

Observable behaviour: How would you know someone appreciates the importance of biosecurity?

Can be reworded as: Applies biosecurity principles (segregation, cleaning and disinfection) on routine visits.

Avoid words such as: knows, understands, appreciates and values.

At beginner level, "know" can be transformed to "describe" or "list", and at intermediate/advanced level, observable behaviours of application of that knowledge can be described.

- Note any behaviours that should be included in another competency.
- Ensure activities are within the scope of practice of VPPs and not veterinarian tasks.
- Keep participants on track and mindful of the time.

TIPS

- Save all workshop worksheets in a joint online workplace that participants can access.

- Hold a briefing meeting with the selected facilitators shortly before the workshop explaining their role as facilitator and note taker, and remind them that they can find the worksheets in the google drive; that they should save a new copy before working on it; and ensure the work is saved at the end before moving onto a new competency.

- Provide hard copies on the day of (i) **working group charts and worksheet 1**, **worksheet 3**, and **worksheet 4** for the relevant competncies of the working groups

- Make notes in the words of the speakers and avoid paraphrasing unless the facilitator gets confirmation that the paraphrase is correct. Display notes with a projector for all to see so that working group members can correct errors.

- It is suggested to start with veterinary products as the first competency in plenary, as it is clearer and less complex than other competencies. The whole working group can learn the process for reviewing a competency together with the lead facilitator, and then the working group can be split into subgroups for the remaining competencies.

Step 9: Review of VPP competency framework

DESCRIPTION

After the workshop(s), the lead facilitator will review all the workshop worksheets in order to bring together all the changes suggested by the workshop participants for each competency. Furthermore, any repetition of behaviours across competencies or levels should be identified, and specific questions by the participants should be addressed.

This becomes Draft 2.

The reviewed competency framework will be sent out to participants three to four weeks before the validation workshop with the following questions:

- Are any key behaviours missing?

- Should any behaviours be removed?

- Are the behaviours allocated to the correct competency level?

- Is there enough of a difference between competency levels to allow one to determine if someone is at level one or two?

- The facilitator elicits input on specific questions, such as where to place a behaviour if different groups place it at different levels.

Comments are to be submitted to the lead facilitator in order to be incorporated into the competency framework before the validation workshop.

This becomes Draft 3.

TIP

This can take a lot of time: Consider dividing the work among members of the team or ensuring you schedule adequate time between the workshops.

Step 10: Validation workshop

The validation process should be agreed upon with the VSB. It might suffice for a smaller core group affiliated with the VSB to validate the final framework; or the working group could be recalled for a final meeting; or a broader group of stakeholders might be invited to join the working group to cement widespread ownership and validation of the document.

The goal of the workshop is to reach a consensus on any outstanding issues, and the focus should be directed to those and not to a line-by-line review of the framework.

After the workshop, the facilitator does a final review of the document to remove any duplicate behaviours and complete final edits. This document is the validated framework.

Examples of validated VPP competency frameworks are available here:

- **Nigeria Veterinary Paraprofessional Competency Framework**
- **South Africa Animal Health Technician Competency Framework**
- **Uganda Veterinary Paraprofessional Competency Framework**

TIPS

- If you invite a broader group, you will need to expand the introduction with an explanation of the process and how you got to where you are at today. The facilitator will need to balance their inclusion without completely reopening the framework for discussion.

- Consensus is gained by summing up the comments and discussion heard into a statement to be accepted, which is different from the approach in the first workshop.

- Have one facilitator work with the participants and one type changes in the document, which can be shared through an overhead projector so that everyone can see the edits being made.

Glossary

From WOAH Competency Guidelines for Veterinary Paraprofessionals.

Competencies means knowledge (e.g. cognitive abilities); skills (e.g. ability to perform specific tasks); attitudes (e.g. affective abilities, feelings and emotions); and aptitude (e.g. natural ability, talent or capacity for learning).

Sphere of activity means skill areas in which a Veterinary Paraprofessional should demonstrate competency.

A Veterinary Paraprofessional means a person who, for the purposes of the World Organization for Animal Health's Terrestrial Code, is authorized by the Veterinary Statutory Body (VSB) to carry out certain designated tasks (dependent upon the category of VPP) in a territory and delegated to them under the responsibility and direction of a veterinarian. The tasks for each category of VPP should be defined by the VSB, depending on qualifications and training and in accordance with need.

A Veterinary statutory body means an autonomous regulatory body for veterinarians and VPPs.

Appendix 1
Example worksheet 1: Competency Levels

Beginner VPP: worker can demonstrate an elementary or entry level of performance. They have sufficient subject matter knowledge but have limited experiential knowledge. They apply principles in usual/simple situations or participate in more complex situations. They require frequent guidance or oversight. This would be the level of a new graduate.

Intermediate VPP: At this level, the worker has developed knowledge and experience in a same of similar job. This person has confidence for independent performance and is able to apply principles in more complex situations.

Advanced VPP: The advanced worker can modify plans in response to events. They may have additional training or experience in a particular scope of practice. They can provide advice and training to other VPPs and support design and implementation of new task, behavior or function.

Do the three competency levels meet the needs? If you would add more, what would you add? If you would remove something, what would it be?

Are the titles of the levels (Beginner, Intermediate, Advanced) suitable? If not, what suggestions do you have?

Do the definitions reflect what you have experienced? Do they require clarification or modification? Could other criteria be added?

Competency Levels

Based on your observations above, how would you modify the definitions?

Beginner VPP:

Intermediate VPP:

Advanced VPP:

Appendix 2
Example worksheet 3

Definition: Drugs, insecticides/acaricides, vaccines and biological products used or presented as suitable for use to prevent, treat, control or eradicate animal pests or diseases; to be used to establish a veterinary diagnosis; or to restore, correct or modify organic functions in an animal or group of animals.
Does this definition reflect the definition of Veterinary Products that VPPs use? How might the competency definition need to be modified to better reflect the application of this competency?
New reworked definition:
Why it is important: Veterinary products are key tools in the control of disease. That said, indiscriminate use or poor quality can lead to poor human and animal outcomes, such as minimal withdrawal times and antimicrobial resistance.
Does this importance statement reflect the importance of this competency in Country A? How might the statement need to be modified to better reflect the importance of this competency in Country A?
New reworked statement:

VPP Competency Framework Pre-workshop Worksheet

Veterinary Products

Activity list: Brainstorm a list of EVERYTHING you think a VPP needs to be able to do related to this competency. Consider tasks and information they should know. For information they would know, think about what is it that you could observe that would tell you that they know something. For example: discuss the benefits of ….

Sort the activity list by the competency level where it belongs		
Level 1 ( )	**Level 2 ( )**	**Level 3 ( )**

Appendix 3
Example Workshop Worksheet 4

Compare the sorted list to the behaviours in the draft competency below. Consider the following:

Are all the activities represented in the listed behaviours? What should be added? What behaviours should be removed? Reasons may include regulated or expected scope of practice.
There are certainly behaviours which cross competencies: At this point, do not worry if you think these could be covered somewhere else; just note that comment, but add it to the competency as well.

Are the behaviours allocated to the correct competency level? What needs to change?

Is there enough of a difference between competency levels to allow one to be able to determine if someone is at a level 1 or 2?

Do you see any benefits in further subdividing this competency? What would you suggest?

Level and title	Behaviour Indicators	Suggested modifications
1 Beginner	- Describe the scope in which VPPs can prescribe or administer medication (15.1). - Describe the characteristics and categories of common veterinary products (15.1). - Select common products to treat, manage and/or prevent common diseases; basic reproductive conditions; and trauma and other emergencies (15.1). - Determine species; route of administration (oral bolus, IV, IM SQ added to feed or water); period of administration; and withdrawal time (15.2). - Calculate dosage (15.2). - Describe conditions for storage, display and handling of approved products to ensure quality and efficacy, including cold chain requirements, expiry dates and proper disposal. (15.3). - Administer most products (oral, IM, and S Q added to feed and water). - Describe resistance mechanisms (microbial, parasitic and vectors).	

Level and title	Behaviour Indicators	Suggested modifications
2 Intermediate	- Discuss adverse effects on animals (15.2, 15.4). - Administer product IV (15.2). - Instruct client on how to administer product (15.2). - Discuss adverse effects on public health, such as withdrawal times and AMR (15.2, 15.4). - Advocate prudent use of antimicrobials, antiparasitics and insecticides (AMU). - Describe how vaccination prevents disease.	

Level and title	Behaviour Indicators	Suggested modifications
3 Advanced	- Storage and handling requirements are supported with records (15.3). - Prescribe or use uncommon veterinary products (15.1). - Participates in AMR/AMU surveillance.	

Appendix 4
Example Competency Framework Workshop Group Chart

This document is for example purposes for organizations planning a competency framework development workshop. It gives an overview of the composition of stakeholders to be included in the working group and how they can be allocated across working groups and sessions to ensure adequate stakeholder representation and gender balance.

Table 1: Competency Framework Working Group Composition

Stakeholder	Number of participants
Representatives of the national VPP Association/ Independent VPPs	eight (four women, four men)
Representative of veterinary association	one
Field veterinarians	two (one woman, one man)
Member of the Veterinary Statutory Body	two
National Veterinary authority	one
Research institute	one
Training institutions/curriculum board	two
Curriculum development experts	one
Farmers representatives	one
Actor from the veterinary pharmaceutical sector	one

Table 2: Competency Framework Subgroups Composition

Subgroup 1 participants	Subgroup 2 participants
National VPP Association member (female)	National VPP Association member (female)
National VPP Association member (male)	National VPP Association member (male)
Representative of Veterinary Association	Field Veterinarian (female)
Member of the VSB (facilitator)	National Veterinary authority member (facilitator)
Training institution	Curriculum Board

Subgroup 3 participants	Subgroup 4 participants
National VPP and Veterinary Association member (female)	National VPP Association member (female) (facilitator)
National VPP and Veterinary Association member (male)	Independent VPP (male)
Field Veterinarian (male)	Member of the VSB
Research institute (facilitator)	Training institution
Farmer representative	Actor from the veterinary pharmaceutical sector

Table 3: Session plan per Subgroup

	Subgroup 1	Subgroup 2	Subgroup 3	Subgroup 4
Session 1	Infectious Disease Control and Prevention	Animal Health	Biosafety, Biosecurity and Occupational Health and Safety	Communication
Session 2	Veterinary Legislation, Policies, Ethics and Professionalism	Use and Management of Equipment and Facilities	Animal Handling and Animal Welfare	Animal Health
Session 3	Field Testing and Sample Collection for Diagnostics	Infectious Disease Prevention and Control Actions	Technical Business Skills	One Health and Food Hygiene
Session 4	Animal Health	Animal Husbandry and Production and Agricultural Economics	Infectious Disease Prevention and Control Actions	Animal Handling and Animal Welfare
Session 5	Technical Business Skills	Veterinary Legislation, Policies, Ethics and Professionalism	One Health and Food Hygiene	Field Testing and Sample Collection for Diagnostics
Session 6	Biosafety, Biosecurity and Occupational Health and Safety	Communication	Animal Husbandry and Production and Agricultural Economics	Use and Management of Equipment and Facilities