

# Veterinary paraprofessionals: their governance and role in improving animal health and welfare in Africa

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**Summary:** *According to the feedback received from African Member Countries, VPPs are present and operational in most countries, where they play a very important role and fulfil an important regulatory function in helping to fulfil the mandate of veterinary service delivery. Nevertheless, VPPs experience numerous challenges including, but not limited to, lack of job opportunities, lack of resources and lack of further training. Member Countries also indicated that VPPs are present in both the private and public sector, working under supervision as well as independently in their own clinics or as inseminators, farm managers and animal health advisors. Member Countries indicated that a number of VPPs are employed in academia and the pharmaceutical industry, as academics and representatives, respectively. In the region, most VPPs undergo 26 to 30 months of formal training, with variations according to the country's specific needs and available resources. The registration of VPPs with the regulating authorities is in most instances not a requirement or compulsory due to the absence of a functional Veterinary Statutory Body (VSB). According to the feedback from Member Countries, the most active VSBs are mostly involved in assessing the curriculum, while they are involved to a lesser extent in setting exit examinations, continuous professional development (CPD) activities and the placement of students for internships. More than 50% of Member Countries indicated that they do not allow VPPs from other countries to work within the country.*

*The majority of Member Countries indicated that CAHWs are present and functional within their country and deliver a much-needed service within communities. CAHW's are mostly trained by veterinarians and VPPs, in-house and on an informal basis. In most instances, training is undertaken with a specific disease prevention and control objective in mind and lasts less than one month.*

**Keywords:** *Africa – animal health – animal welfare – veterinary paraprofessionals.*

## Introduction

Veterinary paraprofessionals (VPPs) have been around for decades servicing the vast majority of African communities with a much needed and affordable animal health and welfare service. In delivering a much-needed community service, VPPs encounter numerous obstacles, including, but not limited to, inadequate financial and equipment resources as well as a lack of support and recognition from the Veterinary Authorities.

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Although community-based animal health workers (CAHWs) are not recognised as VPPs they nevertheless play a very important role within their own communities and, as such, need to be recognised as a relevant part of the veterinary team.

A questionnaire comprising 27 questions relating to VPP and CAHW involvement within African countries was sent to the 54 Member Countries of the OIE Regional Commission for Africa. Forty-five completed questionnaires were received. The main objectives of the questionnaire were to obtain the following information about VPPs in Member Countries: the importance of VPPs in terms of their role and responsibilities and the way they are regulated; the different categories of VPPs, their levels of training and the importance of their contribution to the Veterinary Authorities. The questionnaire also sought to determine the challenges VPPs face with regard to career path and job opportunities. Lastly, the questionnaire intended to establish whether the country has CAHWs and, if so, what contribution they make to the delivery of veterinary services.

This report presents an analysis of the questionnaire returns and discusses important aspects based on the feedback received from Member Countries. This may contribute to the future development of a more functional, service orientated delivery of animal health and animal welfare services within the African continent. The important role and contribution of VPPs within functional Veterinary Services as well as the challenges they experience will be established. Challenges relating to job opportunities and the career path for VPPs seem to be a matter of concern. The existence of different categories of VPPs in Member Countries and their levels and duration of training as well as the existence and contribution of a functional regulating authority to regulate and control the functions of VPPs will also be discussed.

## **Results and discussion**

### **1. The role of VPPs and their contribution to different functions in Member Countries (Fig. 1)**

Almost two-thirds (28/45) of the responding countries indicated the role of VPPs to be 'very important' while one third (17/45) indicated it to be 'important'. None indicated the role of VPP's to be 'not so important' or 'not important'. All Member Countries indicated the role that VPP's fulfil to be either 'very important' or 'important' and as such, VPPs most definitely make an important contribution towards service delivery of the veterinary team within the Member Countries.

As shown by the average scores on a scale of 1 to 5 (where 1 is very limited and 5 is a substantial contribution), disease prevention (3.8/5), disease surveillance (3.7/5) and disease control and eradication (3.6/5) were indicated as the most important contributions made by VPPs, while other aspects also contributed but to a lesser degree: clinical services to livestock owners (3.5/5), meat inspection services (3.5/5), field sampling and specimen collection (3.2/5) and diagnostic laboratory services (2.6/5). Although VPPs make an enormous contribution to animal health and veterinary public health regulatory functions, their contribution to laboratory diagnostic services is less substantial.

### **2. Challenges faced by VPPs in Member Countries**

Lack of funding, reported by 69% of respondents (31/45), and lack of job opportunities (62%; 28/45) were the two main contributors towards the current challenges facing VPP. However, 44% of respondents (20/45) indicated lack of formal recognition as a further challenge in this regard. While Member Countries indicated lack of job opportunities and lack of funding to be the most common challenges faced by VPPs, formal recognition seems to be almost as important a challenge. Member Counties also mentioned lack of training and ongoing training opportunities, inadequate in-service training, and exclusion of VPPs from government structures, lack of equipment and materials and limited career progression opportunities as challenges faced by VPPs.

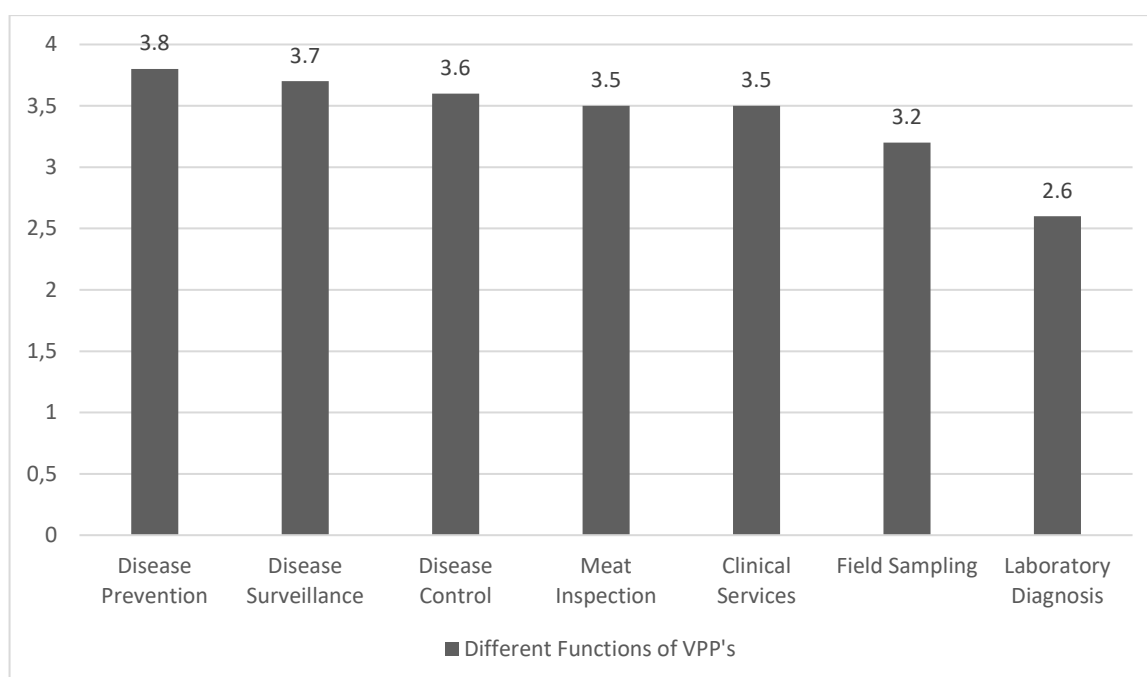


Fig. 1. Different functions of VPPs

### 3. How can the contribution of VPPs be enhanced in Member countries?

Almost all the reporting Member Countries (98%; 44/45) indicated training opportunities as the most important requirement in order to enhance the contribution of VPP, while a regulatory framework (80%; 36/45), better equipment (71%; 32/45) and expanded employment opportunities (58%; 26/45) were all indicated as being important. Salary levels (49%; 22/45) and the expansion of the role of VPPs (36%; 16/45) were not indicated as being important as a means of enhancing their contribution. Member Countries recognised the importance of training opportunities and improved curricula to enhance the contribution of VPPs; formal recognition, improved equipment, and employment and promotion opportunities were recognised as being almost as important in this respect. Some countries indicated a closer relationship between veterinarians and VPPs as being important.

### 4. Average number of active VPPs per Member Country within the public and private sector, by category (Fig. 2)

Some countries indicated different categories of VPPs working across the different tracks (i.e. animal health [AH], veterinary public health [VPH] and laboratory diagnosis [LD]) or in related fields, for instance in training institutions, and as administrative staff not considered as technicians or technologists. In the public sector, the average number of VPPs per country was highest in the AH group (533), followed by the VPH group (308) and the LD group (78).

In the private sector, the three groups were in the same order. The average number of VPPs per country was highest in the AH group (267), followed by the VPH group (168) and the LD group (24). In the private sector, more VPPs are involved in related industries, for instance, in rural drug stores and general service provision, and, in the case of LD VPPs, in medical laboratories.

### 5. Training of VPPs in Member Countries (Fig. 3)

The majority of Member Countries (80%; 36/45) indicated that their VPPs undergo formal training. However, the duration of formal training differs vastly between countries and between the different VPP groups. The duration of training appears to depend on the specific needs of each country. Respondents listed numerous other related courses not leading to a complete or recognised formal VPP qualification and these courses have therefore not been taken into consideration in this analysis.

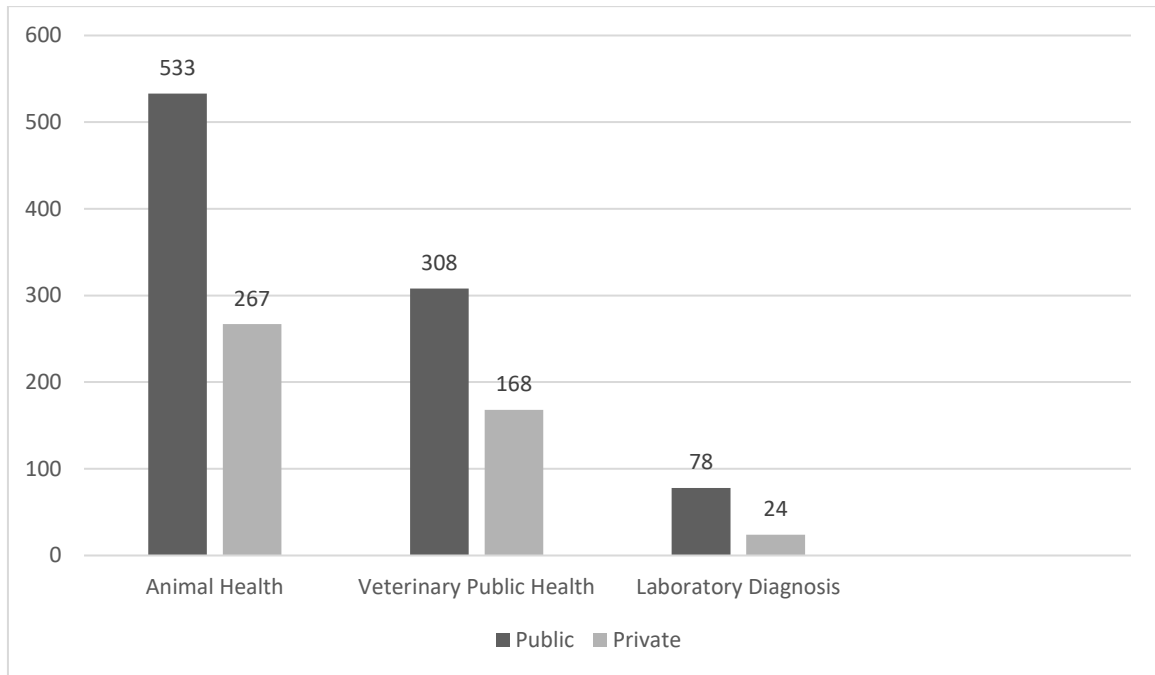


Fig. 2. Average VPPs per Member Country

The average length of VPP training in Member Countries seems to be very similar in all three groups: longest in the AH group (29.8 months) and slightly shorter in the VPH and LD groups (26.3 and 26.5 months, respectively). Nevertheless, there are considerable differences between countries. In the AH group, the length of study ranged from 12 to 36 months, in the VPH group from 6 to 36 months and in the LD group from 6 to 24 months.

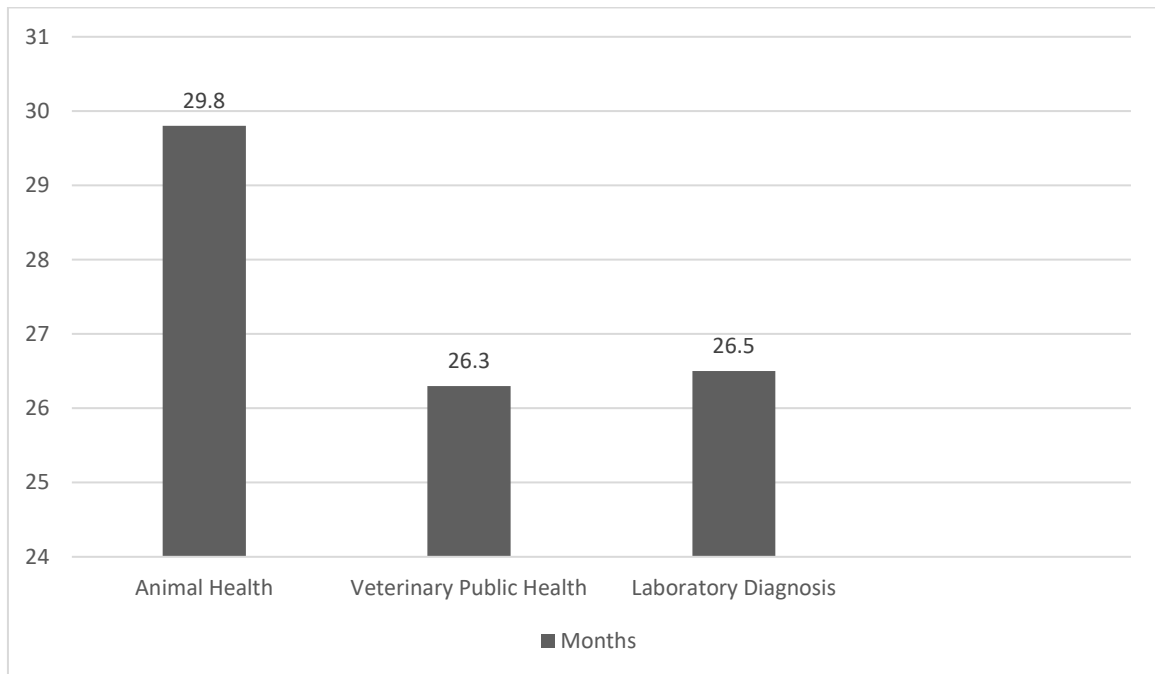


Fig. 3. Average duration of training

## 6. Active training institutions for VPPs in Member Countries (Fig. 4)

In terms of the median number of training institutions for VPPs per Member Country and per category of institution, institutions offering certificate qualifications is the largest category, with 3 institutions per country, followed by diploma qualifications (2.5 institutions) and institutions offering degrees (2 institutions).

A vast majority of Member Countries (78%; 35/45) indicated the mode of delivery as full-time while 13% (6/45) indicated that they make use of a combination of full-time and part-time study; only 2% (1/45) use distance learning and 9% (4/45) have a staggered/modular method of delivery.

## 7. Activities, remuneration and opportunities for VPPs in Member Countries

Although Member Countries indicated that most of the listed activities are done under the supervision of a veterinarian, a number of countries indicated that certain activities could be done without veterinary supervision, for instance extension and awareness (58%; 26/45), meat inspection (47%; 21/45), veterinary clinical services (42%; 19/45) and disease prevention (vaccination) (38%; 17/45). With regard to the other activities listed (disease investigation, sampling and specimen collection, field testing procedures, food processing plant inspections and laboratory testing), only around 20% of Member Countries indicated they will allow VPPs to perform these activities without supervision.

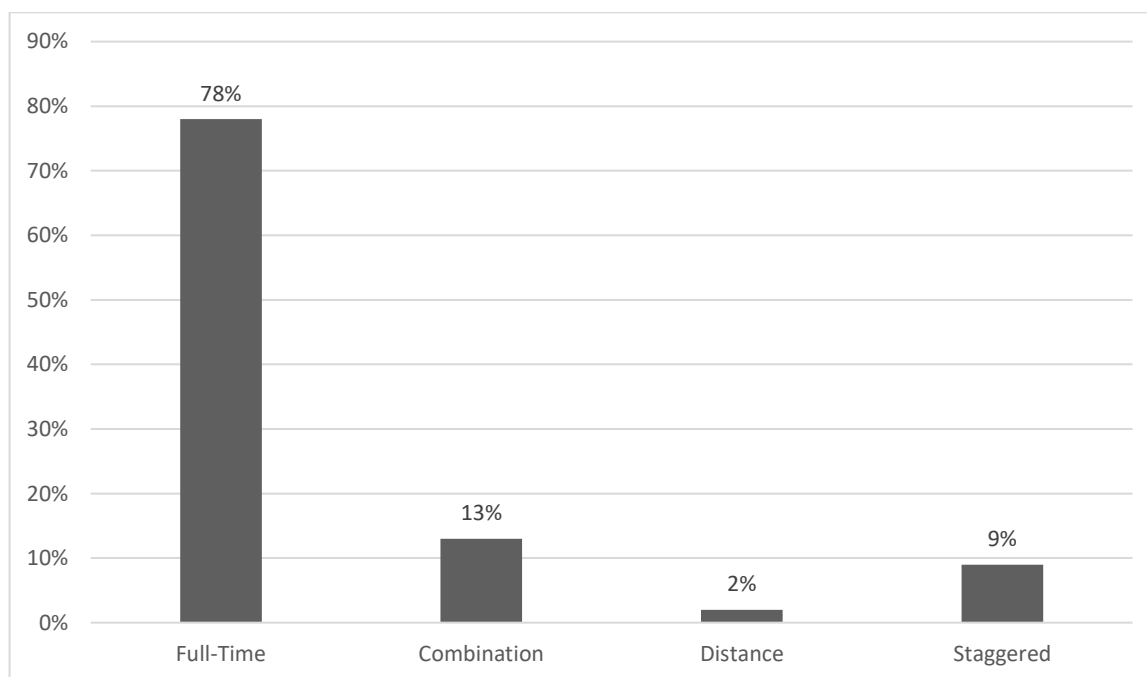


Fig. 4. Mode of education delivery

The majority of Member Countries (76%; 34/45) indicated that VPPs are remunerated according to their level of training and responsibilities, while 24% (11/45) indicated that this is not the case.

More than two-thirds of Member Countries (67%; 30/45) indicated that opportunities exist for a VPP to advance to a managerial position, while 33% (15/45) of countries indicated that there are no such opportunities.

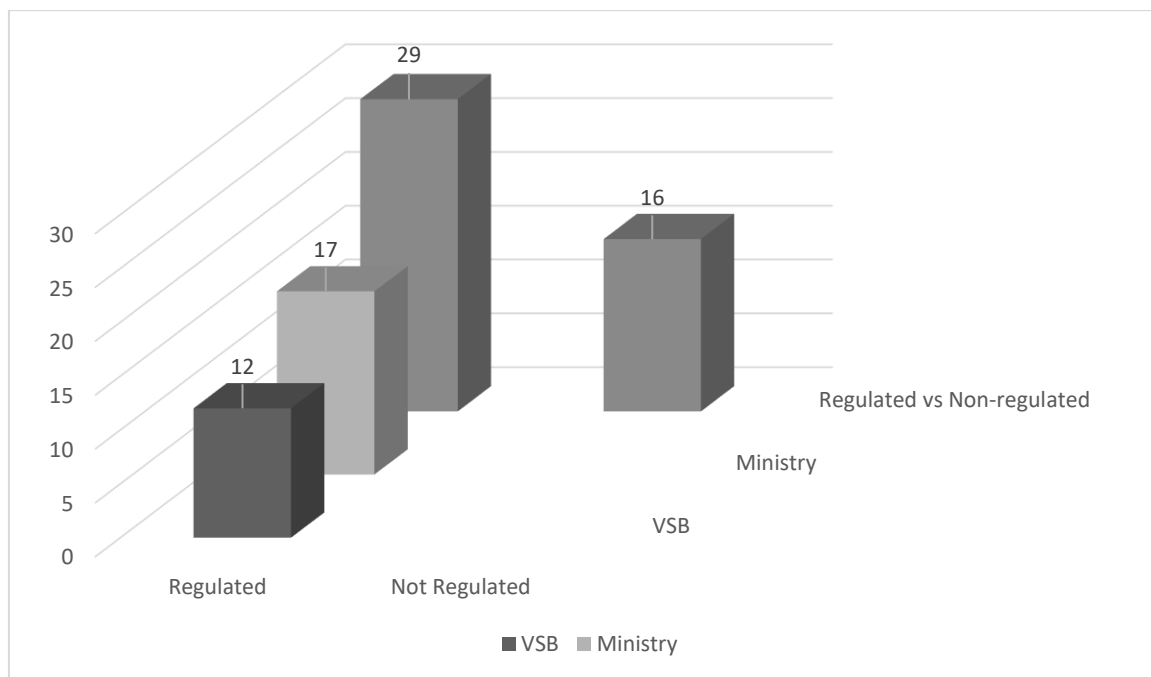


Fig. 5. Regulation of VPPs

### 8. Regulation of VPPs in Member Countries (Fig. 5)

Nearly two-thirds of Member Countries (64%; 29/45) indicated that their VPPs are regulated while 16 countries (36%) indicated that VPPs are not regulated at all.

A majority of the Member Countries (59%; 17/29) in which VPPs are regulated indicated that the Ministry is the regulating authority, while 41% (12/29) indicated that the VSB is the regulating authority. However, six countries indicated a combination of regulation by the VSB and regulation by the Ministry.

### 9. Registration of VPPs in Member Countries

Two-thirds of Member Countries (66%; 19/29) with a VPP regulating authority indicated that it is compulsory for VPPs to register with the authorities, while the other 34% (10/29) indicated that it is not compulsory for them to register.

Only 41% (12/29) of the Member Countries with a VPP regulating authority indicated that their VPP's receive automatic registration on obtaining their qualification, while 59% (17/29) have no provision for automatic registration.

Nearly 21% (6/29) of Member Countries with a VPP regulating authority, indicated that additional examinations are an additional requirement for registration, while 7% (2/29) indicated an internship as an additional requirement. Only one Member Country indicated that a Certificate of Competency (COC) is a requirement for registration.

### 10. The role of the VSB with regard to training standards

Although 40% of Member Countries (18/45) indicated that the VSB is not involved at all, the other Member Countries indicated that the VSB is involved in other aspects of VPP training standards. Only 33% (15/45) of Member Countries indicated that the VSB is involved with assessing curriculum matters while 20% (9/45) indicated VSB involvement with the placement of VPPs after graduation. Other aspects of VSB involvement include continuous professional development (CPD) opportunities (18%; 8/45) and provision of exit examinations (4%; 2/45).

## 11. Working conditions of VPPs

The majority of Member Countries (52%; 23/44) indicated that they do not allow VPPs from other countries to work in their country, whereas 45% (20/44) do allow VPP's from other countries to work.

A majority of Member Countries (64%; 27/42) indicated that VPP's are allowed to work independently while the other 36% (15/42) indicated that they are not.

Among the 27 Member Countries indicating that VPPs are allowed to work independently, 78% (21/27) indicated that VPPs could have their own veterinary related business (agri-shops) and 26% (7/27) indicated 'own clinics' as another sector of importance. Other types of independent VPP activity mentioned by Member Countries include artificial insemination, animal health advisors, farm managers and vaccinators.

## 12. Community-based animal health workers (CAHWs) in Member Countries

The majority of Member Countries (68%; 30/44) indicated the presence of CAHWs. (Fig. 6)

Twenty percent (6/30) of the Member Countries with CAHWs indicated they are unsure of the precise number. Among the countries that reported a figure, CAHW numbers ranged from 100 to more than 1,000.

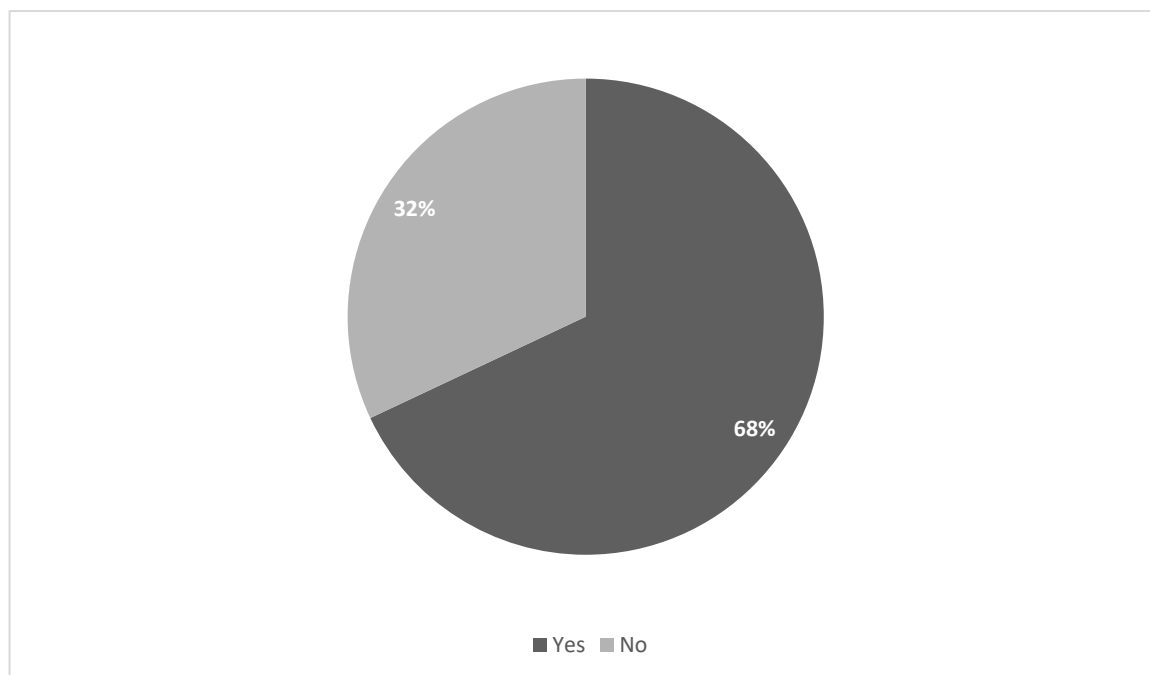


Fig. 6. CAHWs active in Member Countries

The duration of training for CAHWs was mostly less than 1 month in 60% (18/30) of Member Countries, 1 to 3 months in 20% (6/30), 3–6 months in 13.4% (4/30), 6–12 months in 3.3% (1/30) and longer than 12 months in only 1 Member Country. (Fig. 7)

According to Member Countries involved with the training of CAHWs, training is done in most instances by public or private sector veterinarians, VPPs or through private entities from the livestock sector.

More than half of the Member Countries with CAHWs (57%; 17/30) indicated that there is no regulatory oversight for CAHWs while 43% (n=13/30) indicated that there is at least some sort of mechanism providing oversight (including, but not limited to, the district livestock Veterinary Officer, the act relating to civil servants as well as prescribed manuals with limited functions for CAHWs).

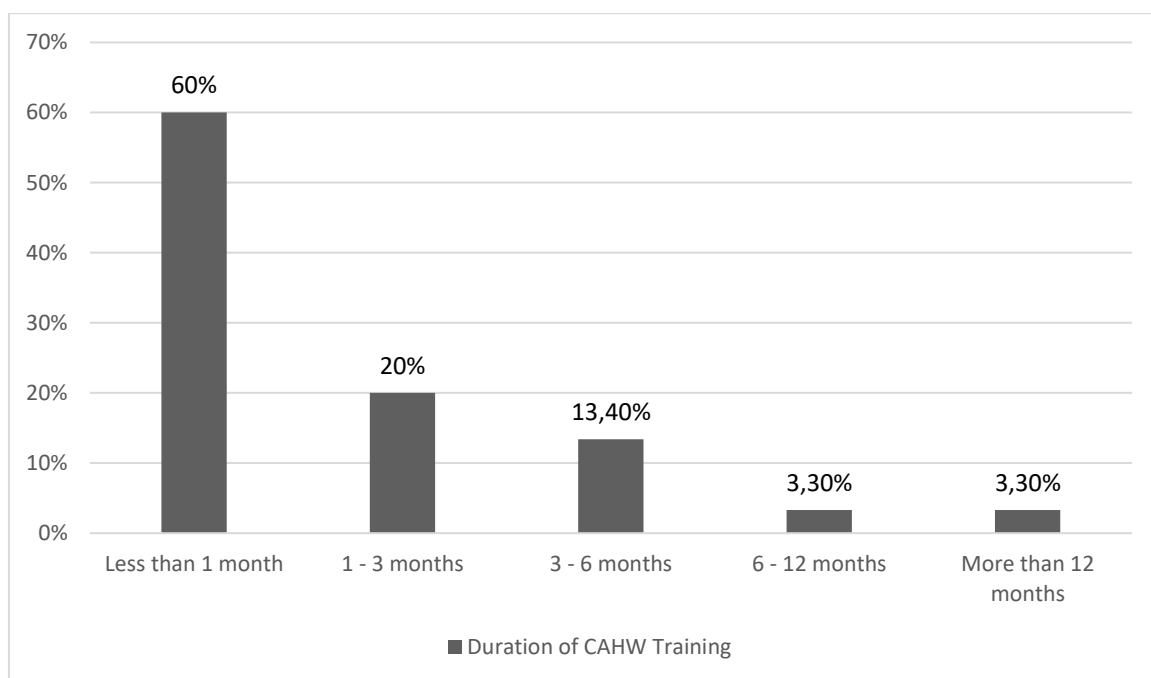


Fig. 7. Duration of CAHW training

**Conclusion**

**1. Veterinary paraprofessionals**

Within the African continent, animal health VPPs perform a very important and fundamental role in delivering a much-needed veterinary service to communities in need of such a basic service. The services they provide include disease surveillance, prevention and control as well as basic clinical services when the need arises or where there is a lack of human and other resources. On the other hand, veterinary public health VPPs, provide a very important meat inspection service to ensure that communities have access to safe meat. Even if VPPs providing veterinary laboratory services exist in some Member Countries, their importance is underestimated, and they are mostly underutilised.

VPPs face numerous challenges, including, but not limited to, a lack of job opportunities and funding as well as a lack of formal recognition by regulating and government institutions. Lack of funding may contribute to the shortage of well-trained VPPs, and low salary levels may contribute to poor motivation among VPPs. Lack of funding most definitely contributes to a shortage of equipment and material as well as other much needed products, thus increasing the challenges facing VPPs. Formal recognition plays a very important role in providing the much-needed job security and job opportunities for VPPs. Without adequate training and study opportunities, the possibilities for progression within formal occupational structures become limited and can only contribute to and increase the already enormous burden of challenges that VPPs have to face.

Although Member Countries indicated that 80% of their VPPs undergo formal training, they also clearly indicated the importance of ongoing training and formal recognition as well as the need for a regulating authority for VPPs.

Different categories of VPPs with different training and educational backgrounds clearly exist. The animal health category seems to be the most widely recognised VPP group within both the public and the private sector, with an average of 533 animal health VPPs per Member Country. The duration of formal training for VPPs differs widely between countries, ranging from 6 months to 36 months. One of the factors influencing the length of training is when a country needs to train VPPs for a specific task. On average, the three VPP groups undergo roughly the same length of training, varying between 26.5 and 29.8 months. In terms of the average number of VPPs per country, the veterinary public health group is almost half the size of the animal health group and the laboratory diagnosis group far smaller than the other two groups. Member Countries confirmed that VPPs do in fact work across the three different tracks as well as in related fields, such as academia and training institutes.



In the public sector, they are mostly involved with veterinary medicine, either as representatives or as owners of drug stores.

On average, more than enough VPP training facilities are available in Member Countries. A relatively small number of countries indicated a considerably higher than expected number of training facilities, with more than 100 in certain instances while others indicated between 30 and 45 facilities. However, the median, ranging between 2 and 3 training facilities per Member Country, seems to provide a more reasonable picture of the reality in the Africa. A single Member Country indicated their mode of training delivery as being part-time study while the vast majority indicated full-time study as their mode of delivery.

In more than 50% of responding Member Countries, VPP's are allowed to work independently in the field of extension services while almost 10% fewer countries allow VPPs to perform clinical services or meat inspection as part of work for own gain. Member Countries prefer these activities to be done under the supervision of a veterinarian. Surprisingly, the majority of countries do not approve of VPPs doing disease prevention (vaccination), disease investigation, sampling and specimen collection, field testing procedures, food processing plant inspections and laboratory testing in the context of own income generation.

Most Member Countries give VPPs the opportunity to progress to managerial positions according to their level of knowledge, skills and training, and they are remunerated accordingly.

The majority of African Member Countries regulate VPPs through either a Veterinary Statutory Body or the Ministry of Agriculture, with just over half of these countries indicating that the Ministry is the regulating body. This means in effect that in only 12 Member Countries is the VSB responsible for regulating VPPs. Further to the above, it is compulsory to register with the regulating authority in a mere 19 African Member Countries, while only 12 of these countries provide for automatic registration on completion of training. Member Countries indicated that their VSB is involved at different levels of training standards but mostly with assessing the curriculum and student placement after they have completed their studies.

## **2. Community-based animal health workers (CAHWs)**

In the absence of veterinarians and VPPs, and that of a functional Veterinary Service, CAHWs play a substantial role in providing a service and helping to ensure a healthy livestock population.

CAHWs are a common feature in most Member Countries in Africa, although their numbers can vary considerably according to an individual country's needs. Training of CAHWs differs from country to country, ranging from relatively short and informal instruction to more advanced form of training. CAHWs are mostly trained in-house with the help of veterinarians and VPPs and their service delivery focuses on disease prevention and control as the main objective. In certain instances, people working in the private livestock sector intervene to assist with training of CAHWs with very specific disease prevention activities in mind. There are currently almost no regulatory authorities for the control of training and the registration of CAHWs, which is partly the reason for the informal training and lack of regulating or registration requirements for CAHWs.