THE ROLE OF PARA-VETERINARIANS IN THE DELIVERY OF VETERINARY SERVICES IN AFRICA
Results of a Survey of Chief Veterinary Officer’s Opinions

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Summary: Para-professionals in the form of para-veterinarians and community based animal health workers (CBAHWs) have long been recognised as a means of increasing the availability and affordability of private animal health services to traditional and small-scale livestock keepers in Africa. However, many countries have strongly resisted the use of para-professionals to deliver privatised veterinary services as they fear that para-professionals would increase the level of drug misuse, provide substandard services and compete with private veterinarians.

This paper reports on a survey of OIE Member Countries in Africa on the role of para-professionals in the delivery of animal health services. There has been a shift in thinking regarding the role of para-professionals in the delivery of veterinary services. Para-veterinarians and CBAHWs now play an active role in the delivery of a range of veterinary services in most of the countries that responded to the questionnaire, and many of these para-professionals operate in the private sector. This trend is expected to continue, with most countries foreseeing a greater role for para-professionals in the future.

Despite many countries adopting a more supportive policy towards para-veterinarians and CBAHWs, national legislation continues to prohibit para-professionals from selling veterinary services. Some countries are now revising their legislation to legitimise the private activity of para-professionals providing they operate under the supervision of a veterinarian.

1. INTRODUCTION

Veterinary services in many countries in Africa have typically been provided by the State (4). Structural adjustment combined with new thinking on the role of the State has led to a decline in funding to many public veterinary services (2). The quality and availability of public veterinary services have subsequently declined in many countries in Africa (4). Reform programmes have often assumed that non-core government services would be financed and delivered by the private sector (10), but after nearly two decades of privatisation, it is clear that private veterinarians are reluctant to fill the gap left by a diminished public service (1). Although private practice is thriving in many countries, private veterinarians have tended to locate in urban and peri-urban areas, leaving most small-scale or remote producers with no or limited access to veterinary services (11).

Para-professionals, either as para-veterinarians or community based animal health workers (CBAHWs), have for some time now been considered one of the most promising means for increasing the provision of animal health services in the rural areas of many developing countries (9). Key features of para-professionals are their low overhead costs and their willingness to live as part of a rural community. With these characteristics para-professionals are able to provide services to small-scale producers in areas that could not otherwise support a private veterinarian. Although para-professionals cannot fully substitute for veterinarians, these personnel are able to provide a cheap, locally available basic health care service that can lead to quite dramatic improvements in herd health (5,8).

Despite the many advantages of para-professionals in service delivery, developing countries have generally resisted their involvement in the delivery of private veterinary services (7). A survey of Chief Veterinary Offices in 1995 showed weak support for the involvement of para-professionals in the delivery of veterinary services (3). Fear of drug resistance that might arise through malpractice is a commonly cited reason for prohibiting the use of para-professionals in service delivery.
This paper provides an updated view of OIE Member Countries' opinions on para-professionals in Africa. The paper reports the results of a questionnaire distributed to Chief Veterinary Officers (CVOs) in Africa. The questionnaire asked CVOs a range of questions on:

- The number, source of employment, activities, income levels and training of para-professionals operating in their country; and

- Their views on the performance of these para-professionals, their status with respect to their country's legislation, and the likely future role of para-professionals in the delivery of veterinary services.

The survey distinguished between two types of para-professionals: para-veterinarians and Community Based Animal Health Workers (CBAHWs).

There were a total of 15 replies from Algeria, Benin, Botswana, Burundi, Eritrea, Gabon, Ghana, Kenya, Malawi, Mali, Morocco, Sudan, Swaziland, Tanzania and Zimbabwe.

2. DISCUSSION OF RESULTS

The results of the survey are presented graphically with an accompanying discussion to highlight points of interest.

**Number of para-professionals**

Respondents were asked to estimate the number of para-veterinarians, CBAHWs and traditional healers operating in their country. Respondents provided a high and low estimate of the number of men and women operating in each cadre.

Figure 1 reports the number of para-veterinarians and CBAHWs in each country. Few countries provided an estimate of the number of traditional healers and so this data is omitted from the figures. The number and type of para-professionals vary widely between countries reflecting differences in government policy towards para-professional service delivery. Benin, for example, has just 300 para-professionals, whereas Zimbabwe has an estimated 15,500 para-professionals. There are also large differences between the countries in the number of CBAHWs relative to the number of para-veterinarians. Botswana reportedly has no CBAHWs, whereas Zimbabwe proposes to increase the number of CBAHWs so that they form over 97% of para-professionals in that country. The majority of para-professionals are men (89% and 77% of CBAHWs and para-veterinarians respectively).

**Figure 1: Number of Paraveterinarians and CBAHWs in 14 countries in Africa**
The ratio of para-professionals to the number of livestock keepers is illustrated in Figure 2. Nearly half of the respondents have more than one para-professional per 2,000 animals. However, it is interesting to note that Zimbabwe, with its very high number of CBAHWs, is able to achieve a significantly greater coverage of the livestock population when compared to the other countries. It has one para-professional for every 450 livestock units, compared to an average of one para-professional per 2,440 livestock units in the other 13 countries.

**Figure 2: Number of Paraveterinarians and CBAHWs per 100,000 Veterinary Livestock Units**

![Figure 2: Number of Paraveterinarians and CBAHWs per 100,000 Veterinary Livestock Units](image)

**Training**

Although para-veterinarians and CBAHWs are grouped together as para-professionals, there is a marked difference between the two cadres in terms of their training. On average, across the 14 countries, para-veterinarians receive two years of training and undergo refresher training at least once a year. In contrast, CBAHWs receive, on average, only four weeks of training and receive refresher training on an ad hoc basis.

**Location**

Para-veterinarians and CBAHWs work mainly in areas where low-input agriculture predominates (see Figure 3), although there are some differences between para-veterinarians and CBAHWs. CBAHWs are largely confined to low-input areas (85% of CBAHWs in 14 countries), whereas para-veterinarians also operate in urban and the intensive production areas (nearly 40% of para-veterinarians). In contrast, private veterinarians work predominately in urban and peri-urban areas (1). The relative distribution of para-veterinarians and CBAHWs between urban, intensive and low-input areas provides an indication of the value of low-grade para-professionals in providing services to traditional livestock keepers in low-input systems, and demonstrates the complementary roles between veterinarians, para-veterinarians and CBAHWs.

**Source of employment and income**

Para-veterinarians and CBAHWs are employed by a variety of different organisations (Figure 4). In most countries, para-veterinarians are employed by the government (70% of countries), whereas relative fewer governments employ CBAHWs (35% of countries). In several countries, para-veterinarians and CBAHWs find employment in the private sector, either through private veterinarians and farmers’ organisations or as self-employed operators.
Figure 3: Location of Paraveterinarians and CBAHWs

Paravets (12,475 in total)
- Urban: 21%
- Intensive: 18%
- Low-Input: 61%

CBAHWs (28,225 in total)
- Urban: 2%
- Intensive: 13%
- Low-Input: 85%

Figure 4: Source of employment for Paraveterinarians and CBAHWs

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<thead>
<tr>
<th>Source of Employment</th>
<th>Paravets</th>
<th>CBAHWs</th>
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<tr>
<td>National Government</td>
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<tr>
<td>Self-employed</td>
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<tr>
<td>Local Government</td>
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Number of Respondents

Income

There are marked differences between the income of CBAHWs and para-veterinarians. The respondents estimated that CBAHWs derived on average an income of 248 USD / annum, whereas para-veterinarians could expect to earn over 1,000 USD per annum. There was little difference between government salaries and the income a private para-veterinarian could expect to earn.

Many countries (over 65%) subsidise the activities of para-professionals, either by providing them with employment or, in the case of CBAHWs, by providing them with a drug kit.

Activities

Para-veterinarians and CBAHWs perform a wide range of tasks in many of the countries surveyed (Figure 5). Para-veterinarians provide vaccinations, clinical treatments, undertake surgery and sell veterinary drugs in over 70% of the
countries surveyed. Despite the difference in level of training, CBAHWs also provide a similar range of services in 50% of the countries.

Figure 5: Tasks performed by Paraveterinarians and CBAHWs

![Tasks performed by Paraveterinarians and CBAHWs](image)

The majority of respondents (85%) considered para-veterinarians competent to provide these services and many (55%) also thought that CBAHWs were capable of delivering a range of animal health services. This level of confidence differs markedly from the findings of an earlier survey of Chief Veterinary Offices in 1995 in which most CVOs considered para-professionals unsuitable for the delivery of therapeutic services (3).

Benefits and concerns regarding para-professionals

Respondents provided a list of the benefits of para-professionals. They also provided a list of their foremost concerns regarding the activities of para-professionals.

There was general agreement among the respondents of the benefits of para-professional service providers (Figure 6). Over 85% of respondents considered that para-veterinarians and CBAHWS increased the availability of services to livestock keepers. Para-professionals allowed animal health services to be provided across a larger area of the country (in particular by providing services in remote areas) and provided services in close proximity to livestock keepers. Para-professional services were recognised as being relatively cheap and therefore affordable to most small-scale producers. A significant number of respondents also felt that para-professionals played a valuable role in disease surveillance.

All respondents, however, had a number of concerns regarding the quality of services provided by para-veterinarians and CBAHWs (Figure 7). Foremost amongst these concerns was the fear of drug misuse. Para-professionals are considered difficult to regulate and supervise, and there was a danger that many would perform activities beyond their skills.

Policy and legislation regarding para-veterinarians and CBAHWs

In nearly half of the countries that responded to the survey, para-veterinarians and CBAHWs continue to be employed by the State Veterinary Services. In this respect the role of para-professionals has remained unchanged over the last ten years, and is consistent with national veterinary legislation that permits the use of para-professionals within the government service.
Just over half of the countries have para-veterinarians and CBAHWs who operate outside of the State Veterinary Services. This is reported as a relatively recent event by the countries in question and reflects a change in position of government towards para-professionals. Over half of the respondents claimed that government policy was generally supportive of private sector para-professionals, and in some countries, the government provides training, drugs and vaccines to these para-professionals. To quote one respondent: "There has been a quantum shift in the viewpoint on the role and importance of para-veterinarians and CBAHWs. Whilst these cadres were once considered a threat to the delivery of AH services by professional Veterinarians, the majority of the profession now recognise their worth and role."
However, veterinary legislation is often inconsistent with government policy regarding para-professionals. All countries that believe para-professionals have a role to play outside of the government services have legislation that prohibits para-professionals from providing animal health services in the private sector. Many of these countries do, however, report that they are in the process of updating their legislation to allow para-professionals to operate under the supervision of a private veterinarian.

It is likely that this apparent trend towards the use of para-professionals will increase. Over 70% of the respondents felt that the role of para-professionals in delivering services will rise in the future. This view emerged despite common agreement that veterinarians provided a superior service. It was, however, generally acknowledged that veterinarians could not provide services to small-scale or remote producers at a price poor producers could afford. In some countries, fiscal constraints were forcing a shift into para-professional forms of service delivery as para-veterinarians and CBAHWs have considerable lower training costs than veterinarians. A prevailing opinion was that: "Para-veterinarians have played a significant role in the development and delivery of veterinary services, and this will continue in the future, especially as state services are rationalised".

Few countries felt that para-professionals are displacing veterinarians. On the whole, the role of the para-professional was felt to complement that of the veterinarian, and few countries felt that para-professionals were a threat to private veterinarians. All countries argue, however, that para-veterinarians and CBAHWs should only operate under the supervision of a veterinarian. This requirement should help create a synergistic relationship between a veterinarian, para-veterinarians and CBAHWs. As one respondent explains: "One vet supervising ten para-veterinarians and one hundred CBAHWs can treat 500,000 animals in a day. One vet working alone could only treat 50 animals in a day."

3. CONCLUSION

Chief Veterinary Officers have traditionally been hostile to the idea of allowing para-professionals to deliver veterinary services in the private sector (3). This survey suggests there has been a change in attitude towards para-professionals in many countries in Africa. Over half of the respondents considered private para-professionals to be competent to deliver a range of veterinary services to small-scale and remote producers, and many countries are revising their legislation to legitimise the role of para-professionals in the private sector.

A key concern remains regarding the quality of the services provided by para-professionals and the level of drug misuse that might arise through para-professionals. Some countries are seeking to manage the risks associated with para-professional service delivery by creating legislation that requires para-professionals to operate under the supervision of a veterinarian. The veterinarian is responsible for monitoring and supervising the activities of para-veterinarians and CBAHWs. A rise in para-veterinarians working under the supervision of a veterinarian should greatly increase the availability of animal health services to small-scale producers, whilst at the same time improving the quality of the State to monitor and control epidemic disease.

REFERENCES

