



COMMUNITY-BASED ANIMAL HEALTH WORKERS (CAHWs) GUARDIANS FOR QUALITY, LOCALISED ANIMAL HEALTH SERVICES IN THE GLOBAL SOUTH

In many rural areas in the global South, the number of qualified veterinarians often does not suffice to provide quality animal health services at local level. In these areas, inhabited by livestock and agricultural communities, this deficiency in terms of animal health services leads to certain risks related to poverty, public health and food insecurity and nutrition.

To deal with these risks, the approach of community-based animal health services was developed. Selected by their community and in collaboration with private veterinary doctors,

the veterinary public services and supporting bodies (projects and NGOs), Community-based Animal Health Workers (CAHWs) provide basic services and give husbandry advice to livestock keepers. They are in charge of disseminating certain farming techniques and methods in order to optimize animal production and play an important role in epidemiological surveillance.

Today, CAHWs play a vital role in providing quality animal health services in most parts of the global South. However, CAHWs encounter several challenges related to a common nomenclature, their training, their supervision and their legal status. To resolve some of these issues, VSF International proposes to develop a common understanding of CAHWs and their different categories, so as to recognize their role as indispensable actors in localised animal health services.

The VSF International network advocates for CAHWs to be recognized as true guardians for quality, community-based animal health services in the global South by addressing the following key issues:

- Providing a definition of CAHWs and their different categories, each with clarified roles and activities, and include these into the veterinary legislation of the countries;
- Standardizing the training curricula at national level, which shall include a minimal common base of competences and some location-specific competences, according to the context;
- Clarifying the roles and responsibilities of each of the actors involved in the local animal health system, including supervision of CAHWs in order to ensure the quality of the services.

1. THE EVOLUTION OF ANIMAL HEALTH SYSTEMS IN THE GLOBAL SOUTH AND THE BIRTH OF COMMUNITY-BASED ANIMAL HEALTH WORKERS

THE SUDDEN LIBERALISATION OF ANIMAL HEALTH SERVICES IN THE GLOBAL SOUTH

In the global South, animal health systems have evolved a lot as socioeconomic systems have changed. As an example, in many African countries, during colonisation a pyramid structure was put in place to ensure technical veterinary service provision by the state (VSF Belgium, 2016). At the top, one could find those in charge of drafting policies, followed by those in charge of coordinating the activities of those at the bottom, who were the agents who were effectively carrying out tasks. Assigned to the villages, the agents were in close contact with livestock keepers and provided them with all forms of animal health services at no cost to the livestock keepers. After gaining independence, the states inherited this pyramid model along with the technicians and veterinarians. Between the 1960s and the 1980s, local veterinarians gradually replaced European ones. During this period, the veterinary profession comprised different categories of animal health professionals, all taking part in the administration: veterinarians, livestock technicians and para-veterinarians (assistants, auxiliary nurses...).

Throughout the 1980s and 1990s, with the imposition of structural adjustment policies by international institutions such as the IMF and the World Bank, governments

abandoned their role as animal-health service provider to focus increasingly on their role as regulator. The veterinary profession was liberalized, and private operators established themselves, providing herders with (now for-profit) animal-health services. Initially limited to the sale of drugs, private veterinarians were mandated by the state to practice mass prophylaxis against notifiable diseases.

However, in many African countries but also in other parts of the world, the withdrawal of public services was done in a brutal manner, with no immediate replacement by the private sector and no strategy for a gradual transition towards the private entities. Overnight, livestock keepers found themselves without any animal health service.

CHALLENGES FOR ANIMAL HEALTH SYSTEMS

The evolution of animal health services in many countries in the global South has led to a situation where a large share of the around 1.3 billion people who depend on livestock to assure their livelihood face limited access to animal health services (FAO, 2015). Keeping livestock healthy however, is pivotal for their livelihoods and survival. Animal health services should address a number of important issues affecting livestock dependent people in particular (Thonnat, 2006). These issues are numerous and part of the following categories:

- **Human health and overall public health (One Health).** The food safety of animal products is necessary and indispensable to prevent and control food-borne and zoonotic infectious diseases. Beyond animal health, veterinary services and livestock keepers play a vital role in public health by guaranteeing food safety in relation to products of animal origin at all stages of the food chain and by preserving the effectiveness and the availability of antibiotics, pest control chemicals, etc. Safe and nutritious animal food products also contribute to a better food security and nutrition, which is a pre-requisite of good health.
- **Socio-economic issues.** Securing animal health is vital in securing animal production. Integrated in markets (local, informal, regional), livestock provides significant income to many people and constitute a source of employment throughout various sectors. In doing so, this activity in rural areas also helps to contain the rural exodus and maintain a certain attractiveness for sparsely populated areas.
- **Macro-economic and trade issues.** Whether at national or international level, trade in livestock and animal products is based on strict (animal) health rules.



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Securing animal health is also at the basis of securing trade in animals and their products by virtue of agreed health standards.

- **Environmental issues and biodiversity.** Due in part to contacts between domestic livestock and wild-life and the high prevalence of vector-borne infectious diseases, health security will also help to preserve several ecosystem services provided by natural resources.

THE EMERGENCE OF CAHWs

To fill the void created by the (failed) privatisation of veterinary services in the 80's and 90's and to deal with some of the issues mentioned in the above; new animal health delivery systems were developed from the 90's onwards in many countries in the global South (Leyland et al., 2014). They built upon the knowledge, participation, and needs of livestock-owning communities to deliver localised animal health services.

At the core of these systems are the **community-based animal health workers (CAHW)**. These CAHWs are members of the community and often livestock keepers themselves. They generally receive training in basic animal health care and provide a limited range of veterinary tasks to the members of their community, often in association with or supervised by a graduated veterinarian. A range of organizations facilitated their instalment at first. In Asia, government veterinary services were closely involved in the instalment of CAHWS, whereas in West Africa and South America, farmer's organizations were closely involved in the process. In East Africa, NGOs (Non-governmental Organizations) took a leading role (Leyland et al., 2014).

From the 1990s onwards, they became more widespread and were increasingly utilized to address humanitarian needs in regions where people were often very reliant on livestock for their livelihoods. In the late 90s, the gradual increase in CAHWs led to the discussion on

the sustainability of the approach and the recognition and institutional support of CAHWs by governments. This discussion has been ongoing ever since.

2. COMMUNITY-BASED ANIMAL HEALTH WORKERS TODAY: STATE OF THE ART

Animal healthcare systems usually include veterinarians (private and/or public), technicians and veterinary para-professionals (VPPs) and Community Animal Health Workers.

Describing **veterinarians** is quite easy since both private and public veterinarians must hold a degree in veterinary medicine from an internationally recognised university and have a veterinary state diploma.

Regarding the second category of **VPPs**, the OIE states that they '*should receive formal training at either the certificate, diploma or degree level from training institutions accredited by the appropriate government agency or the veterinary statutory body and the activities that they are permitted to conduct will reflect their level of formal training*' (OIE, 2018).

In that perspective, CAHWs can be considered as different from VPPs since they do not fit the criteria of category and in general do not have a certificate by a government accredited training institution. As already mentioned in the above, **CAHWs** are mainly livestock keepers who are trained (by government officials, NGOs or farmer organisations) in basic animal health techniques (such as vaccination and deworming for instance) and who deliver a limited range of veterinary services to their communities in return of some form of payment (either in cash or in kind). In most parts of the world, they play a substantial role in providing animal health services at local level due to the critical absence of veterinarians and VPPs. Thanks to CAHWs' interventions, millions of livestock keepers benefit from curative and prophylactic treatments for their animals at a reduced cost.

Moreover, CAHWs are also important for overall public health since they play a crucial role in **disease surveillance**, whether detecting highly contagious diseases in livestock or zoonotic diseases affecting also humans. In order to do this, CAHWs report vaccination activities and animal sanitary situation by phone or by foot to the responsible Veterinary Public Health authority in their area. CAHWs are also key-actors in governmental vaccination campaigns. In Ethiopia for instance, CAHWS play a huge

role in the fight against the Peste des Petit Ruminants (PPR) in Afar and Somali regions and against Anthrax in South Omo.

WHY COUNT ON CAHWs FOR LOCALISED ANIMAL HEALTH SERVICES?

In 2017, VSF-International was involved in a study in 19 countries to analyse how localised animal health systems are organized and to identify similarities and differences between countries¹ (Galière, 2017).

The study revealed that in most of the countries, there are not enough private and public veterinarians. Therefore, they cannot provide animal health services that cover the entire territory. In some countries, private vets were found to be almost non-existent (Burundi, Cambodia, Laos and South Sudan). In addition, the lack of vets seems most apparent in rural zones, far from urban centres. The same observation can be made for the VPPs: though their importance in providing quality animal health services cannot be denied and though they are more widespread and present than veterinary doctors, **their number remains insufficient to cover the entire territory in adapted animal health services.** In most of the countries concerned by the study, VPPs are employed either by the public service or by private veterinarians (except in Laos and Cambodia where private veterinarians do not exist in rural areas). In twelve out of nineteen countries, they are also allowed to work on their own, and in Madagascar they do so despite the fact the law doesn't allow them to. Finally, regarding the community animal health workers (CAHWs), the study noted that in most countries, they outnumber VPPs and veterinary doctors, and they ensure a good territorial coverage.

¹ The study was conducted in the following countries: Burkina Faso, Burundi, Cambodia, DRC, Ethiopia, Haiti, Kenya, Laos, Madagascar, Mali, Mongolia, Rwanda, Senegal, Sudan, South Sudan, Tanzania, Togo, Uganda and Vietnam.



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3. CHALLENGES FOR CAHWs IN THE GLOBAL SOUTH

The research mentioned in the above and the many years of experience of the members of VSF-International in the global South clearly show that, due to the lack of veterinary doctors and the uneven presence of VPPs, CAHWs are indispensable to provide animal health services in remote rural areas.

Accordingly, there seems to be a clear need to invest in (i) training veterinarians and veterinary para-professionals and in (ii) the spreading of qualified CAHWs to ensure quality animal health services, adapted to the needs of smallholder livestock keepers. Nevertheless, the spreading of CAHWs in the global South encounters a lot of challenges related to their training, their nomenclature, their supervision and their (official) recognition by national, regional and international law-makers. Though all of these challenges are very much inter-related, the analysis below offers some interesting insights and puts them in 4 categories:

LACK OF STANDARDIZED TRAINING

There is no standardized training (content, duration, objectives and pedagogical requirements, persons qualified to train, evaluation) for CAHWs, resulting in important variations in terms of training content and duration from country to country. As a result, significant differences exist in terms of CAHWs' capacities between countries, and in some cases even within a single country.

LACK OF A COMMON NOMENCLATURE

In parallel with the lack of a common training, there is no common nomenclature for CAHWs on a global level. Even inside the same country, different names are used



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to talk about CAHWs. In West Africa, for instance there are CAHWs (“*Agents Communautaire de Santé Animale*”), Livestock Assistants (“*Auxiliaires d’Elevage*”) and Voluntary Village Vaccinators (“*Vaccinateurs Volontaires Villageois*”). This is very confusing for public services and livestock keepers, especially for mobile pastoralists who cross borders and encounter different types of CAHWS, depending on the country they are entering.

SUPERVISION

There are also big differences in terms of supervision of CAHWs. This has important consequences for the quality of the services they are able to provide and for taking up all the aforementioned challenges (public health, food security, etc.). For instance, without a proper and ongoing supervision, veterinary medicines are misused and badly administered. In many of the countries where CAHWs are active, there is a clear problem of supervision, related to the legal relationship between CAHWs and the other bodies of animal health professionals. In some cases, this leads to competition between CAHWs, VPPs and vets while the goal of CAHWs should precisely be to *fill the gap* resulting from the lack of vets and VPPs and help them to reinforce their activities.

FORMALIZING CAHWs’ STATUS

Finally, there is the key problem of the formalization or **legal recognition** of CAHWs. In many countries where CAHWs operate and provide animal health services, they have to do so illegally. At the international level, the world organization for animal health (OIE) is in charge of setting the international standards and regulations for animal health related subjects.

The OIE – through its Terrestrial Code and its recently published “Competency Guidelines for Veterinary Para-professionals” (OIE, 2018) – recognises the category of veterinary para-professionals (VPP) but does not make any explicit reference to CAHWs. Therefore, some countries include CAHWs among VPPs whose definition by OIE is very explicit and register them as part of the veterinary workforce under the Veterinary Statutory Body. Other countries may simply recognize the activity of CAHWs by providing some guidance at national level without a formal definition of a legal status. The study on localised animal health systems found that only 7 out of 19 analysed countries provide a legal status for CAHWs (Galière, 2017). In general, approaches to formalize CAHWs position vary a lot depending on the country, and include:

- Official recognition of CAHWs, including their legal status,



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- Recognition of CAHWs’ activities without a specific (legal) definition of their status (*de facto* recognition),
- Tentative harmonization of training programs for CAHWs,
- CAHWs tied to the public veterinary services,
- CAHWs as members of farmers’ associations, offering services on the basis of formal agreements,
- Issuance of professional cards to CAHWs.

One could argue that the lack of recognition has favoured the multitudes of training, names and types of supervision leading to important variations in terms of knowledge and skills as well as service provision’s quality. However, it is just as true that because of the lack of standardization in training, names and supervision, the legal status of CAHWS remains problematic in many countries. Legal recognition of CAHWS should therefore be combined with resolving the other challenges, as outlined in the above.

4. VSF INTERNATIONAL’S GUIDING PRINCIPLES FOR CAHWs IN THE GLOBAL SOUTH

The way CAHWs are installed, structured and operate – within localised animal health systems – has to be adapted to each context; taking into account all specific socio-cultural, political, economic and environmental factors. There is no one-size-fits-all model, and flexibility is required to adapt to the local setting. Strategies for CAHWs may vary according to whether or not there is legislation regulating their activity, whether or not there are private veterinarians in the field, and depending on the sanitary and livestock environment.

In order to structure these strategies and answer the above-mentioned challenges, VSF-International propos-

es some guiding principles for the spreading of CAHWs in the global South to recognize them as key-actors in delivering quality animal health services to livestock keepers and their communities.

DEFINING AND IDENTIFYING CAHWs: DEVELOP A COMMON UNDERSTANDING

It is important to define CAHWs to have a general understanding of what a CAHW is. In order to do so, VSF-International proposes the following definition:

A CAHW is a farmer/field agent selected by his/her community with the collaboration of private veterinary doctors, the veterinary public service and supporting bodies (projects and NGOs). S/he provides basic animal health care services and husbandry advice to livestock keepers. S/he is therefore responsible for popularizing certain farming techniques and methods in order to optimize animal production. As a relay agent, s/he plays an important role in epidemiological surveillance.

CAHWs should therefore be selected in a participatory manner within communities according to some pre-identified criteria - such as level of education, having a good community reputation, having time and dedication (their activities as CAHWs should not intervene with their primary farming occupation), etc. - to ensure that community members recognize them as legitimate actors. Thanks to this clear link with communities, sustainability of instalment of CAHWs can be ensured as CAHWs will also remain active after having received a training.

As already stated CAHWs **are not a uniform category** and therefore known by many names. Consequently, different functions related to animal production and

epidemiological surveillance can be assigned to CAHWs including:

- Treating sick animals, including basic surgical procedures,
- Managing a stock of veterinary medicines,
- Organizing and implementing vaccination and deworming campaigns,
- Awareness raising and advising livestock keepers,
- Collecting and sharing information,
- Participating in professional organizations and organizing collective actions of CAHW associations,
- Cold chain infrastructure establishment, operation and maintenance.

VSF-International recognizes this diversity and concurrently the **need to develop a common understanding of the different categories of CAHWs**. For instance, Voluntary Village Vaccinators (VVs) in West-Africa are a type of CAHW – in line with the above definition – whose main purpose is to vaccinate animals (mainly goats and poultry). Therefore, the training they have received (by NGOs, governments or farmers' organisations) is only adapted to that, nothing more. They are not trained for disease diagnosis or animal treatment.

Recognizing and defining this diversity of CAHWs would definitely benefit the quality of the services they provide and ease their supervision. Different categories of CAHWs should therefore have different mandates, all fitting under the umbrella of the above included definition. This definition of CAHWs should be provided by the international organisation in charge of animal health, OIE, and should recognize the diversity of CAHWs in countries.

Gender aspects should be integrated transversally and specifically in the recognition and definition of CAHWs. This is necessary because in the past, training and support for CAHWs often targeted men (Flintan, 2011). Women make up almost half of the world's farmers and livestock keepers (World Bank, 2017). They are often responsible for small livestock or poultry (as well as milk), while men are mainly engaged in the care and sale of the bigger species.

Involving women in animal health care will therefore benefit to the recognition of women's role in livestock management and will add to their overall empowerment. By being more involved, women can support other women thereby increasing knowledge and potentially income.

However, though many women might be interested in taking up this role, cultural constraints may still restrict



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their involvement. Further discussion is therefore needed on how women can specifically be supported to be involved, based on successful examples from projects and programmes.

TRAINING CAHWs: STANDARD SKILLS AND COMPETENCIES WITH SOME LOCATION SPECIFIC FLEXIBILITY

Since CAHWs are in fact a very diverse category, it is no wonder that their skills and competencies can be very diverse as well. Working in strengthening animal health services in over 25 countries, VSF-International recognizes this diversity and the need to adapt CAHWs' skills and competencies to the different countries and contexts they are working in, based on their mandate. For instance, the length and duration of the CAHW training should be defined in consultation with the training participants. This is important since the training must not interfere with their primary farming occupation.

VSF-International members have been testing **training modules** over several years, in collaboration with local and national authorities, private veterinarians and farmer organisations. They generally include theoretical training in the local language and practical activities for each theoretical module, followed by a "learn by doing" approach. During the training, they also emphasize the need for CAHWs to maintain relationships with public and private vet services, and the responsibilities and duties of CAHWs towards their communities.

After the first training, CAHWs improve their knowledge and skills by being accompanied by a veterinarian throughout **periodic refresher trainings** and the horizontal sharing of experiences. Thanks to this, CAHWs are able to acquire, over the years, a quite substantial set of competences and knowledge in animal health care.

In 2006, VSF Suisse and the Inter African Bureau for Animal Resources (AU-IBAR) published a training manual for CAHWs (Lan-Lebrun, 2006), which today serves as a

guide for all African countries towards a harmonization of training approaches.

A standardization of CAHWs curricula at country level is important to deal with some of the challenges mentioned before. As suggested by the AU-IBAR, "CAHWs curricula should include a set of basic competences, which are equal in the national territory, and some location-specific competences to account for variations and priority needs in different ecological zones and production systems" (AU-IBAR, 2003). In addition, AU-IBAR recommends that curricula of CAHWs should be standardized at the country level and that the Veterinary Statutory Body of each country should endorse this. This last part is in fact crucial as it reflects directly the need to frame CAHWs' activities to ensure that communities who benefit from CAHWs' work have a similar ability to respond to health risks.

Furthermore, in order to ensure quality training, quality control, and effective skills development of CAHWs, examiners – recognised by national Veterinary Statutory Bodies – should evaluate CAHWs trainings and grant them certificates of achievement. This means that Veterinary Statutory Bodies should set **minimal standards to evaluate the competencies of CAHWs**.

SUPERVISION OF CAHWs TO ENSURE QUALITY ANIMAL HEALTH SERVICES

If official examiners evaluate competencies of CAHWs and if the latter are obliged to participate in refresher courses and to obtain a certain certification of achievement, their supervision is already partially covered. However, it is very important to ensure a supervision of CAHWs on a day-to-day basis. Ideally, veterinary doctors (either private or public) and VPPs should do this.

The hierarchy of the different actors of the animal health system should be integrated into national laws so that the **roles and responsibilities of each of the actors** (Private/public vets, public services, VPPs, CAHWs and livestock keepers) becomes clear. Usage of modern mobile technology can play a huge role in facilitating this supervision.



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CONCLUSIONS AND RECOMMENDATIONS

In many rural areas in the global South, the number of qualified veterinarians often does not suffice to provide quality animal health services at local level. In these areas, livestock keepers and their communities count on Community-based Animal Health Workers (CAHWs) to deliver affordable, localised animal health services.

A CAHW is a farmer/field agent selected by his/her community with the collaboration of veterinary doctors, the veterinary public service and supporting bodies (projects and NGOs). He/she provides basic animal health services and animal husbandry advice to livestock keepers in order to optimize animal health and production. As a relay agent, the CAHW plays an important role in epidemiological surveillance. Though CAHWs' merits are numerous, their naming and title, training and skills, their supervision, as well as their (official) recognition status, differ across countries. This puts a heavy burden on their work and therefore has important consequences on animal production and animal and human health.

To resolve these issues, VSF-International suggests to:

- Develop a common understanding of CAHWs and their different categories. Recognizing CAHWs and defining their diversity benefits the quality of the services they provide. Different categories of CAHWs should have different mandates, all fitting under the umbrella of a common definition. The OIE and its member states should provide a framework to develop this definition – including roles and activities of the different types of CAHWs – and to include these into the veterinary legislation of the countries.
- National Veterinary Statutory bodies should endorse the standardization of curricula for CAHWs at the country level and the evaluation of their trainings by official examiners. Curricula should be developed to include a minimal common base of competences, and some location-specific competences, according to the context. This should also be in line with the different categories of CAHWs.
- National laws should clearly define the roles and responsibilities of each of the actors in the animal health system, including the CAHW. This is to ensure the permanent supervision and evaluation of CAHWs activities, avoid any unfair competition between actors, and ultimately to improve the quality of the services.

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**VSF INTERNATIONAL
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This Policy Brief has been drafted for VSF International by Koen Van Troos, Margherita Gomasasca and Hervé Petit.

The authors thank all contributors from the VSF International network.

Vétérinaires Sans Frontières International

Av. Paul Deschanel 36-38
1030 Brussels - Belgium

Email: info@vsf-international.org

Web: vsf-international.org

VSF International is a network of non-profit organizations working all over the world to support small-scale farmers and livestock keepers. As a whole, VSF International members are active in more than 30 countries in Africa, Asia and Latin America.