



"LINKING VETERINARY
PARA-PROFESSIONALS
AND VETERINARIANS"

THE ROLE OF VETERINARY PARA-PROFESSIONALS IN AFRICA

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1. Presentation of key organisations

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The World Organisation for Animal Health (OIE)

Yacouba Samaké

Representative
Regional Representation for Africa
OIE
Bamako, Mali

The *Office International des Epizooties* or OIE was founded in 1924, in order to prevent animal diseases from spreading across the world.

In 2015, OIE has 180 Members, including all the 54 African countries. Resolutions are adopted democratically, through the concept “one member = one vote”.

In 2003, it became the *World Organisation for Animal Health*, while keeping its historical acronym OIE.

The OIE 5th Strategic Plan, adopted by the World Assembly of Delegates, enlarges OIE’s core mandate to improve animal health, veterinary public health, animal welfare and to reinforce the animal roles and place worldwide. This 5th Strategic Plan perfectly fits with the 4 CAADP pillars (*Comprehensive African Agriculture Development Programme*) of NEPAD.

In May 2015, the World Assembly of Delegates adopted the OIE 6th strategic plan, for the 2016-2020 period.

The continent hosts the Regional Representation for Africa in Bamako, Mali, and is supported by three Sub-Regional Representations, based respectively in Tunis, Tunisia, for northern African Countries, in Nairobi, Kenya for eastern African and Horn of Africa countries, and finally in Gaborone, Botswana, for southern African countries. This set-up, extremely dense for our Organisation, aims at supporting the modernisation of Veterinary Services so that they can, in the medium term, comply with the requirements of the international standards due to globalisation.

In supporting our members, OIE is helped by important bilateral cooperative and international agencies (Australia, Switzerland, Canada, France, Italy, Japan, UK, USA, World Bank, European Union etc.).

At the global level, OIE developed a standardised tool for the evaluation of the *Performance of Veterinary Services*, called the OIE PVS Tool, to help, progressively, Veterinary Services to achieve the goals set by the national authorities.

The activities of Veterinary Services, with their public and private components, are considered a global public good, as it benefits to all countries, nations and all generations.

The evaluation process is supported, in particular, by the Veterinary Legislation Support Programme, and the Laboratory Twinning programme. Veterinary legislation is the keystone of good veterinary governance.

Nowadays, almost all African countries are engaged in this process.

Upon demand from *Regional Economic Communities* (REC), OIE also produces for each REC, the synthesis of the evaluations of Veterinary Services of the Member States within each region, at least for those countries which removed the confidentiality clause on those documents.

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OIE benefits from a network of 252 Reference Laboratories in 39 countries, covering 118 animal diseases, as well as 49 Collaborating Centres in 26 countries and covering 46 thematic areas. Through them, OIE can mobilise international experts.

The *World Animal Health Information System* and its interface (WAHIS/WAHID) developed by OIE, allows each national Delegate to inform the rest of the world about epidemiologic events occurring in his/her territory and to receive information related to sanitary events in the other countries.

OIE, by its actions and expertise, with its partners, contributes to strengthen food security and food safety for populations living from or with animals.

Some new activities deserve to be highlighted :

- The *One Health* concept: a global strategy of managing risks at the human-animal-environment interface;
- the Tripartite Agreement between OIE, FAO and WHO targets 3 priorities: zoonotic influenzas, antimicrobial resistance and rabies (global elimination of canine rabies);
- Veterinary training : valorisation of veterinary diploma and promotion of the professional excellence worldwide;
- The relationship between “livestock and the environment”, anticipating new sanitary and environmental risks.

OIE, as any organisation, relies on two pillars : do well and know well. The *know-well* consists in communicating clear and relevant information, available to all.

In conclusion, OIE activities are a global public good, benefiting the International Community, and whose cost to Members is meaningless compared to the services provided.

The Africa Veterinary Technician Association (AVTA)

Benson Ameda

President
Africa Veterinary Technicians Association (AVTA)
Nairobi, Kenya

The *Africa Veterinary Technicians Association* (AVTA) was founded in 2013 to promote and defend the interest of all Veterinary Para-Professionals , with a special interest in the animal resource industry in Africa. This was after realizing that a gap existed at regional and continental levels in regard to advocacy for the Veterinary Para profession. AVTA is further expected to promote and improve the animal resource industry through its services.

The membership of the Association is drawn from recognized National Veterinary Para Professional Associations in African countries. The Associations must be private organizations funded mainly by subscriptions of its members and partnerships. However, there are provisions for non-Veterinary Para professionals to be admitted as members with no voting rights. Hence the membership categories are five, and include principal, private, associate, honorary and corporate.

The term Veterinary Para-Professional means a person who, for the purposes of the Terrestrial Code, *“is authorized by the veterinary statutory body to carry out certain designated task (dependent upon the category of veterinary para-professional) in a territory, and delegated to them under the responsibility and direction of a veterinarian”*. They offer a wide range of services in the livestock sector with a lot of dedication irrespective of the environmental and geographical conditions. They are deployed both in the public and private sectors in areas of disease control, public health, animal welfare, extension services, artificial insemination, training and research institutions.

Despite the key role *paravets* play in the society, most countries have not recognized them in the various legislations governing veterinary services. In addition, lack of standardization in training, intimidation, discrimination and restricted employment opportunities are some of the challenges facing the Para-Professional profession.

To address the above challenges, AVTA will focus its activities on four thematic areas that impact on the performance of Veterinary Para-Professionals. Areas with key interest are policy and legal frameworks, capacity building and welfare of members, standards, ethics and regulations, and finally data bank and information.

While ensuring compliance with international standards, AVTA is guided by the fact that there is urgent need to encourage effective and sustainable livestock development. It is in the interest of the association that a stable public-private-partnership for growth is promoted. However, success will be realized depending on collaborations and partnerships with other sector institution and stakeholders.

The *Global Alliance for Livestock Veterinary Medicines* (GALVmed) Veterinary paraprofessionals and animal health service delivery in rural areas

Samuel Niyi Adediran, Abdallah Twahir & Lois Muraguri*

Assistant Director Market Development and Access
Global Alliance for Livestock Veterinary Medicines (GALVmed)
Nairobi, Kenya

Following deregulation of public services due to the global economic recession and the decline of public funded veterinary service delivery, veterinary paraprofessionals have become key players in animal health delivery in many African countries. Direct and indirect losses due to major livestock diseases cost Africa over 20 billion US dollars. With aggregate estimated population comprising 300 million cattle, 1.8 billion chickens, 650 million sheep and goats, 35 million pigs, nearly 70% of which are under small holder extensive production systems in rural areas, livestock diseases threaten the livelihood of millions in Africa. Low farmer awareness of preventive solutions, inadequate number of qualified veterinarians, poor cold chain facilities, weak input and output market and poor regulatory oversight over vast production landscape hampers animal health services. Veterinary paraprofessionals have served to fill some gaps in extension services and enabled more livestock producers in rural and peri-urban areas to access livestock health services with varying levels of success. However concerns remain over practice ethics and product abuse. Lack of proper certification, poor characterisation and poor regulation are the other features of the sector limiting efficient and quality service delivery.

Based on livestock population statistics vis a vis the number of animal health professionals, within the context of emerging diseases and the need for more efficient service delivery, this paper argues for the relevance of veterinary paraprofessionals, including where necessary, community animal health workers and proposes critical areas of intervention in order to improve the quality of veterinary services to small and emerging medium scale livestock producers in Africa.

2. The OIE standards pertaining to veterinarians and veterinary para-professionals (VPP)

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OIE standards on the quality of veterinary services

Monique Eloit

Deputy Director General
OIE
Paris, France

Veterinary Services are key actors to contain sanitary risks hampering economic development in the livestock and agri-food sectors and threatening human health. Moreover, the efficiency of animal health policies is crucial for a better availability of food products when numerous populations suffer from under nutrition or malnutrition, and for the development of international trade exchanges. Hence, Veterinary Services represent a global public good and their compliance to international standards is a priority for public investments.

Good sanitary governance is closely dependent on the quality of the Authorities in charge. OIE developed standards on the quality of Veterinary Services defined in chapter 3 of the Terrestrial Animal Health Code. Implementation of and compliance with those standards allow Member Countries of OIE to demonstrate that their Veterinary Services are able:

- To efficiently monitor the sanitary status of their animals and animal products;
- To monitor and detect animal diseases and sanitary events occurring on their national territory, and then to declare them to OIE.

Monitoring quality and the accuracy of information provided are essential, firstly for the country itself in order to guarantee to its commercial partners the quality of the sanitary certification of its marketed animals and products, and, secondly, to allow remaining countries to protect themselves by implementing suitable measures.

In implementation of those standards, the quality of Veterinary Services depends on several fundamental principles of which some deserve to be reminded as part of this conference, and particularly:

1. The professional judgement implying that the personnel of Veterinary Services have the relevant qualifications and possess the adequate experience to fulfil their responsibilities;
2. The resources adequacy, in particular in human resources, to implement efficiently the activities;
3. The general organisation of the Veterinary Services that needs to clearly define the each actor's responsibilities as well as the chain of command between the agents implicated, in particular when missions' delegation of public services occurs.

Indeed, a good governance of animal health systems relies on a close partnership between the public and private sectors. This way, the Terrestrial Animal Health Code defines the Veterinary Services in its glossary as including public and private organisations, using the services of veterinarians but also of other health professionals and para-professionals.

This definition also specifies that *“private sector organisations, veterinarians, veterinary paraprofessionals or aquatic animal health professionals are normally accredited or approved by the Veterinary Authority to deliver the delegated functions”*. Then, the Veterinary Statutory Body (Veterinary Council or Board) habilitates para-professionals to carry out designated tasks, depending on their skills and training, understanding that their activities remain under the responsibility and the supervision of a veterinarian.

Given the importance of issues at stake, OIE committed to support its Country Members in their willingness to fulfil the compliance of their Veterinary Services with those quality standards:

1. By providing rules and evaluation criteria, as well as giving them the possibility to benefit from an external and independent evaluation via the OIE PVS Process. In 2015, all African countries members of OIE are engaged on this process and several success stories confirm the relevance of this device;
2. By proposing a support programme for Country Members willing to modernise their national legislative arsenal on veterinary legislation according to OIE standards;
3. By establishing recommendations on the minimal expected skills of young graduated in veterinary medicine, and guidelines for the design of a curriculum model for initial veterinary training.

The Veterinary Services quality is essential to establish the credibility and trust that they are given: compliance of Veterinary Services to international standards on quality is therefore a challenge to take up, and to which OIE will keep on contributing.

OIE standards on the quality of veterinary legislation

David Sherman

Coordinator, Veterinary Legislation Support Programme
Regional Activities Department
OIE
Paris, France

Veterinary legislation is an essential element of a nation's infrastructure. It provides the powers and authorities necessary for Veterinary Services to efficiently carry out their key functions in the veterinary domain in order to ensure public safety and promote the public good.

These functions encompass epidemio-surveillance; early detection and reporting of animal diseases, including zoonoses; rapid response to and prevention and control of animal disease and food safety emergencies; animal product food safety; the welfare of animals; and the relevant certification of animals and animal products for export. Therefore, well drafted, comprehensive veterinary legislation is fundamental to a nation's preparedness to address biological threats.

In the face of growing global demand for foods of animal origin, increasing world trade, shifting patterns of disease associated with climate change, expanding risks of bio-terrorism and the emergence and re-emergence of diseases that can rapidly spread across international borders, Veterinary Services must be supported by effective and modern legislation.

However, in many countries, veterinary legislation is outdated and not adequate to meet current and future challenges and societal expectations. In response to this situation, the OIE established the *Veterinary Legislation Support Programme* (VLSP) in 2008 to help its Member Countries recognise and address their needs for modern, comprehensive veterinary legislation. Through the VLSP, Teams of OIE experts conduct on-site veterinary legislation identification missions at the request of Member Countries. The objectives of these missions are four-fold:

- i. to evaluate the country's veterinary legislation and its compliance with the OIE intergovernmental standards on veterinary legislation;
- ii. to support the preparation of national priorities in terms of veterinary legislation reform;
- iii. to identify the available human resources for undertaking legislation reform; and
- iv. to propose comprehensive recommendations to modernise the country's veterinary legislation.

In 2009, at the request of Members, the OIE developed Guidelines on Veterinary Legislation, setting out the essential elements that should be covered in veterinary legal texts to meet the OIE quality standards.

In December 2010, the first OIE Global Conference on Veterinary Legislation, with the theme "Modernising Veterinary Legislation for Good Governance" was held in Djerba (Tunisia). One of the recommendations made by the Conference was that the OIE propose the adoption and publication of the current Veterinary Legislation Guidelines as standards in the Terrestrial Code

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In response to this recommendation, OIE convened an ad hoc Group on Veterinary Legislation in 2011 to develop a new draft chapter based on the Guidelines. Through the established OIE standard setting procedure, the draft chapter on veterinary legislation was unanimously adopted by the World Assembly of Delegates at the 80th OIE General Session held in May 2012. It is now included in the Terrestrial Animal Health Code as Chapter 3.4, entitled Veterinary Legislation.

Chapter 3.4 represents the OIE intergovernmental standards on veterinary legislation. This presentation will provide an overview of the content of Chapter 3.4 with an emphasis on those sections particularly relevant to the recognition and utilisation of veterinary para-professionals in the context of national veterinary services.

OIE definitions with respect to veterinary paraprofessionals

Etienne Bonbon

President
Terrestrial Animal Health Standards Commission
OIE
Paris, France

OIE standards frequently highlight the role of the different actors in animal health and welfare. The implementation of those standards, including the Terrestrial Animal Health Code standards, is delegated to the Veterinary Services, under the Veterinary Authority's control, employing, directly or indirectly, different professionals from private and public sectors.

For all Countries, Members of OIE, to comply harmoniously with those standards, a set of interconnected definitions was adopted for each participant in the chain of command and execution.

First and foremost, the scope and responsibilities of the Veterinary Services and the Veterinary Authority needs to be delineated as they both represent the managing and responsible bodies.

Therefore, Veterinary Services are defined as *“the governmental and non-governmental organisations that implement animal health and welfare measures and other standards and recommendations in the Terrestrial Code and the OIE Aquatic Animal Health Code in the territory. The Veterinary Services are under the overall control and direction of the Veterinary Authority. Private sector organisations, veterinarians, veterinary paraprofessionals or aquatic animal health professionals are normally accredited or approved by the Veterinary Authority to deliver the delegated functions”*.

We can therefore consider the Veterinary Services as the field authorised public as private services, in the broad sense, whereas the Veterinary Authority is *“the Governmental Authority of a Member Country, comprising veterinarians, other professionals and para-professionals, having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the Terrestrial Code in the whole territory”*.

Obviously, both these definitions include all the actors in charge of standards implementation at every level, from design to application. Later, it became crucial to also specify the functions of some of these actors, animal health, veterinary public health and animal welfare professionals, in order to avoid misunderstandings that could compromise this implementation.

In particular, an agreement on the exact definition of the pivotal professional in the system, the veterinarian, was necessary. According to the OIE Code, a veterinarian means *“a person with appropriate education, registered or licensed by the relevant veterinary statutory body of a country to practice veterinary medicine/science in that country”*.

The Member country can rely with confidence on a profession, which is clearly defined, represented and controlled. Within this profession, the State can delegate specific functions to some actors. We mean the official veterinarians who have to deal with inspection and certification tasks. Once more, it became crucial to define globally and clearly who were those persons in charge playing a particular role in the international trade of animal and animal products.

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According to the OIE Code, an official veterinarian means *“a veterinarian authorised by the Veterinary Authority of the country to perform certain designated official tasks associated with animal health and/or public health and inspections of commodities and, when appropriate, to certify in accordance with Chapters 5.1. and 5.2”*. The reference to chapters 5.1 and 5.2, rather unusual in a definition, is nonetheless essential as it links the activity of the official veterinary to a set of recommendations ensuring harmonious application of the standards for exported animals and animals products.

Nevertheless, veterinarians alone cannot, in numerous cases, handle all the Veterinary Services missions. Other professionals are key actors, in particular those assisting veterinarians in their surveillance, inspection and control missions etc. Related to various trainings, qualifications and services, they were gathered under the term veterinary para-professionals (or paraprofessionals). A reasonable and practical definition, adapted to all Country Members of OIE, was adopted because of the various types of their activities and for the same other reasons as for veterinarians.

In the glossary of OIE Code, a veterinary para-professional *“means a person who, for the purposes of the Terrestrial Code, is authorised by the veterinary statutory body to carry out certain designated tasks (dependent upon the category of veterinary para-professional) in a territory, and delegated to them under the responsibility and direction of a veterinarian. The tasks for each category of veterinary para-professional should be defined by the veterinary statutory body depending on qualifications and training, and in accordance with need”*.

This definition, as for the veterinarian one, introduces the essential role of the Veterinary Statutory Body, which is according to the Code *“an autonomous regulatory body for veterinarians and veterinary para-professionals”*. The Veterinary Authority can rely on this perfect “professional organizer” to be certain of the quality of people who will apply its guidelines at all levels.

To understand, through their definition, that the veterinary paraprofessionals are trained and qualified persons and that their tasks depend on this formation, but also on the country needs, is crucial. Moreover, the paraprofessional veterinary status according to the OIE definition is always linked to a particular function embedded in Veterinary services' missions.

3. Country testimonies : Veterinary statutory bodies (VSB)

Veterinary Statutory Bodies in Africa : focus on VPPs and staffing of veterinary services (outcomes of the PVS evaluations conducted)

Patrick Bastiaensen

Programme Officer
Sub-Regional Representation for East Africa and the Horn of Africa
OIE
Nairobi, Kenya

A survey conducted in 2013 by Bastiaensen *et al.* in view of the third OIE global Conference on Veterinary Education and the Rome of the Veterinary Statutory Bodies (Foz do Iguaço, Brazil, 2013) had concluded that 67% of countries in Africa have *Veterinary Statutory Bodies* (VSB) defined by law, most of which (93%) can be considered operational, though not necessarily compliant with part or all of the standards of the OIE, as listed under Chapter 3.2. of the Terrestrial Animal Health Code.

Veterinary Statutory Bodies, also referred to as Veterinary Councils or Veterinary Boards, are expected to perform three main duties (article 3.2.12. of the Terrestrial Animal Health Code) :

- the licensing or registration of veterinarians and *veterinary para-professionals* to perform the activities of veterinary medicine/science;
- the minimum standards of education (initial and continuing) required for degrees, diplomas and certificates entitling the holders thereof to be registered or licensed as veterinarians and *veterinary para-professionals*;
- the standards of professional conduct and competence of veterinarians and *veterinary para-professionals* and ensuring that these standards are met.

In 2013, only 63% of *Veterinary Statutory Bodies* registered *veterinary para-professionals*. Those that did register VPP, mentioned the following categories, listed in decreasing order of frequency : animal health technicians (94%), veterinary laboratory technicians, meat inspectors and food inspectors, artificial inseminators, nurses, extension officers, vaccinators, community-based animal health workers, animal production officers and animal scientists, horse farriers and equine dental technicians, laboratory animal technologists and animal health technologists (6%). As can be seen from the above list, some countries do include “*community-based animal health workers*” (CAHW s) in their definition of veterinary-para-professional and register them as part of the veterinary workforce under the Veterinary Council, legislation permitting.

In the 36% of countries where the *Veterinary Statutory Body* does not register *veterinary para-professionals*, it remains unclear whether VPP are at all recognised, regulated, licensed and/or registered. In some cases, it is argued that veterinary associations have taken up this role or that they are registered by other Statutory Bodies.

Furthermore, only 17% of *Veterinary Statutory Bodies* allow direct representation of veterinary para-professionals in their governing bodies. This may be a low estimate as some groups of *veterinary para-professionals* could be represented through e.g. a veterinary association or other representative bodies.

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Looking at the staffing of *veterinary para-professionals* within the broader definition of Veterinary Services (i.e. public and private services), OIE *Performance of Veterinary Services* (PVS) evaluations conducted in 51 African countries since 2006 have yielded insight into the “*appropriate staffing of the VS to allow for veterinary and technical functions to be undertaken efficiently and effectively*” (PVS definition of *Professional and technical staffing of the Veterinary Services*).

Using only declassified PVS reports, it appears that in 17% of African countries the majority of technical positions, requiring *veterinary para-professionals*, are not occupied by personnel holding appropriate qualifications.

In contrast, in only 12% of countries are the majority of technical positions requiring *veterinary para-professionals* at national, state/provincial and local/field levels occupied by personnel holding appropriate qualifications and effectively supervised on a regular basis.

Country testimonies : Veterinary statutory bodies (VSB) : South Africa

Clive Marwick

Executive Member
South African Veterinary Council
Pretoria, South Africa

The *South African Veterinary Council* (SAVC) is a statutory, regulatory body of the veterinary professions in South Africa. The SAVC is established and functions independently from government under the Veterinary and Para Veterinary Professions Act, Act 19 of 1982.

The SAVC is a member of the *World Organisation for Animal Health* (OIE) and subscribes to the Terrestrial Animal Health Code on Veterinary Statutory Bodies with a view to improve animal health and welfare, veterinary legislation, veterinary education and supervision of the veterinary professions.

The SAVC adopted its own One Health Concept, has a Food Safety Committee and strategy, developed the Day One skills for each veterinary professions under its regulation and supports the introduction of Private - Public Partnerships.

The SAVC established a Standards Committee with a view to harmonise standards of training and standards of practice in the region. In the interim twinning projects are supported. Thereby the SAVC supports the creation of regional associations of VSB and /or other organisations with delegated education authority which could facilitate the establishment of a list of *veterinary education establishments* [VEE] that be subject to regional accreditation after appropriate external would audit, based on criteria that may be accepted throughout the region or Africa to facilitate mobility of veterinary professionals as per the Bamako Declaration of April 2011.

Vision

Advancing public and animal health through quality veterinary services for all.

Mission

The South African Veterinary Council seeks, through the statutes of the Veterinary and Para-Veterinary Professions Act, 1982 to :

- serve the interests of the people of South Africa by promoting competent, efficient, accessible and needs-driven service delivery in the animal health care sector;
- protect the health and well-being of animals and animal populations;
- protect and represent the interests of the veterinary and para-veterinary professions;
- regulate the professional conduct of the veterinary and para-veterinary professions;
- and
- set and monitor standards of both education and practice for the veterinary and para-veterinary professions.

Strategic Goals 2014-2016

- Unification of the veterinary professions
- Relevance for the needs of the country
- Review of all legislation on an ongoing basis
- Mobilise resources
- Effective administration

#

In terms of section 23 (1) (c) of the Veterinary and Para Veterinary Professions Act, Act 19 of 1982 no person who is not registered with the SAVC may render the services of any of the veterinary professionals regulated by the SAVC.

The veterinary team

The SAVC promotes veterinary services as an inter-related service offered by the veterinary professions as a team and encourages cooperation between the veterinary profession and the veterinary para-professionals overall, but especially in activities such as disease surveillance and primary animal health care. The veterinary team has a synergistic relationship as per the scopes of practice of each of the veterinary professions as described in the rules for each of the veterinary professions.

The veterinary team consists of the

1. veterinarian,
2. veterinary nurse,
3. veterinary technologist,
4. animal health technician and
5. laboratory animal technologist.

The SAVC intends to, at this stage, bring four new veterinary para-professionals on board namely:

6. veterinary welfare assistants,
7. veterinary physiotherapists,
8. meat inspectors and
9. equine dental technicians.

Services

1. Veterinarian [3173 registered in South Africa] Veterinary Specialists [174] Qualifications: [BVSc, UP] [Qualifications are accepted for automatic registration based on evaluation by visitation process] Persons without accepted qualifications must pass a registration examination. Veterinarians make diagnosis and treat animals. Only veterinarians may use highly scheduled medicines schedules 5 & 6.
2. Veterinary nurse [627] Qualifications: *Diploma Veterinary Nurse* (Dip. Vet. Nur.) UP; *Diploma Curing Animals* (Dip. Cur. Anim.) UP. Qualifications are accepted for automatic registration based on evaluation by visitation process. Persons without accepted qualifications must pass a registration examination. Veterinary nurses assist veterinarians in the practice and are permitted to dispense up to schedule 4 medicines.

3. Animal health technician [1058] Qualifications: [B.Sc. Agric [Animal Health] NWU; Diploma Animal Health, NWU; Nat Diploma, UNISA] Persons without accepted qualifications must pass a registration examination. *Animal health technicians* [AHTs] act as the foot soldiers in the control of animal diseases and are involved in preventative medicine. AHTs are also involved in *Primary Animal Health Care* [PAHC] especially in production animals.
4. Laboratory animal technologist [18] Qualifications: [Currently only theoretical training Animal Institute Technology, UK and practical training in South Africa; FELASA accredited courses]. Currently, there is no training offered for this profession in South Africa and also no registration examination. Laboratory animal technologists only work with experimental animals mainly in a laboratory environment and may perform minor surgery. The SAVC, in terms of Section 23 (1) (c) of the Act authorise persons to render the services of veterinary professionals under conditions determined by the SAVC and where there is a need for such a service which cannot be fulfilled by a registered veterinary professional.
5. *Veterinary Welfare Assistants* [VWA] soon to become a certified [one year certificate] veterinary para profession are currently authorised as *Animal Welfare Assistants* [AWAs] [322] to provide the services of a veterinary nurse to indigent persons and they are employed by Animal Welfare Organisations.
6. Veterinary physiotherapists: The profession will be promulgated in the near future.
7. Meat inspectors: The profession is currently registered by the *Health Professions Council of South Africa* [HPCSA] as environmental health officers. However they have, in terms of the OIE *Performance of Veterinary Services* (PVS) report, to be registered with the SAVC.
8. Equine Dental Technicians: A need for this profession was indicated but no further progress is made to bring them on board.

Country Testimonies : Veterinary statutory bodies (VSB) : Nigeria

Markus A. Avong

Registrar
Veterinary Council of Nigeria
Maitama, Abuja, Nigeria

Nigeria is one of the 37 Member Countries of the World Organisation for Animal Health (OIE) in Africa that have been listed as having a Veterinary Statutory Body (VSB) that has wholly or partly conformed with the OIE definition of a VSB (Article 3.2.12 of the OIE Terrestrial Animal Health Code).

The *Veterinary Council of Nigeria* (VCN) is the VSB of Nigeria.

The VCN is a Federal Government Parastatal and it is the only one that regulates Veterinary Surgeons and the Veterinary Institutions in the country. Membership of the VCN is representative of the major stakeholders in the Veterinary profession in the country namely, the Federal Government, the State Governments, the Veterinary Research Institute, the Veterinary Education Establishments and the Professional Association – the *Nigerian Veterinary Medical Association* (NVMA). The VCN is funded through budgetary allocations and *internally generated revenue* (IGR).

The VCN has not yet fully conformed with the OIE definition of a VSB. The OIE Mission Report on Nigeria (2011) identifies lack of provision for the regulation of the Veterinary Para-professionals (VPPs) in the Veterinary Surgeons Act CAP V3, LFN, 2004 (which is the main legislation establishing the VCN). Efforts to amend the legislation to provide for VCN to regulate the VPPs are on-going. All the major stakeholders including the VPPs are being carried along to support the amendment of the legislation in the National Assembly.

This Conference on the Role of the VPPs in Africa should provide further impetus for Member Countries of the OIE in Africa who have not yet fully conformed with the OIE model of a VSB to do so not only to fulfill all righteousness but as an imperative for good governance of Veterinary Services.

Country testimonies : Veterinary statutory bodies (VSB) : Sudan

Mohammed T.A. Shigidi and Samir A.Rasoul*

* President
Sudan Veterinary Council
Khartoum, Sudan

The powers, roles and functions of the Sudan Veterinary Council (SVC) are derived from its 1995 Act amended in 2004. Based on the Act the Council regulates and supervises the veterinary practice and ensures that acceptable standards of the veterinary profession are met by veterinarians and veterinary para-professionals.

There are four categories of veterinary para-professionals in the Sudan veterinary care system, which participate in veterinary services within or outside the government. All veterinary para-professionals should be supervised by veterinarians as legislature prohibits them from providing autonomous veterinary services.

The categories of veterinary para-professionals are: community animal health workers (CAHWs), veterinary nurses, veterinary assistants and veterinary technicians, their scope of practice varies with the level of qualification. CAHWs are local persons with 4-6 weeks of training and work in rural areas with nomads and the displaced, veterinary nurses do not have formal animal health training or qualifications but have on the job training while veterinary assistants have a degree of formal training but no qualifications. Members of the above three categories are not required to enrol in the registers of the SVC. At the higher level of veterinary para-professionals are the veterinary technicians. These are qualified veterinary para-professionals who have a formal study of three years in higher education institutions after which they obtain their Diplomas. They register with the SVC after accreditation of their study curricula.

The SVC regulates the work of veterinary para-professionals, sets the regulations of enrolment, privileges of enrolment, duties and obligations, rules of ethical conduct and the procedures for filing complaints and enquiries and the types of penalties. The SVC cooperates with universities, organizations, the veterinary authorities and private training centers to organize and provide ad hoc training programs to various levels of veterinary para-professionals.

These programs are recognized as they are professionally organized and participants obtain certificates of completion.

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4. Country testimonies : Community-based animal health workers (CAHW)

Country testimonies : Community-based animal health workers (CAHW) Legislation : the situation in Senegal

Babacar Camara

President

Regroupement National de Techniciens Vétérinaires du Sénégal (RENATEV)

(National Association of Senegal's Veterinary Technicians)

Mbour, Senegal

In Senegal, the veterinary medicine and pharmacy profession is regulated by Act n° 2008:07 of the 24 January 2008. The Government of Senegal implemented this Act to regulate the profession after a policy of voluntary retirements from civil service and when graduates from the National Training School were no longer systematically recruited.

It should, according to me, constitute a legal framework organising the veterinary profession and the veterinary pharmacy, especially considering the multiplicity of actors in the livestock sector : veterinarians, livestock engineers (or animal scientists), livestock technicians and also those called *auxiliaires d'élevage* (or *Community-based animal health workers*). The latter are trained in the field and work mainly in rural areas to compensate for the lack of Senegalese veterinarians in remote parts of the country.

In addition to the Act mentioned above, private practice in medicine and pharmacy in Senegal needs to be approved by the Ministry in charge of the livestock sector. Where veterinarians are not involved, technicians experience many difficulties to get authorisations delivered by the Ministry.

It has been observed that when a technician wants to establish a private practice, he needs to be under the supervision of a private veterinarian working in the area or under the supervision of the local (government) Veterinary Officer. This relationship of custody between private technicians and private vets leads to conflicts of interest as they are both in the private sector and target the same objective.

The Act puts veterinary technicians in a secondary role by considering them as veterinary nurses, allowed to deal only with mild diseases, whereas animal scientists and technicians have worked closely with veterinarians, ever since independence. Numerous veterinary students are trained in regional offices run by animal scientists (*ingénieurs des travaux d'élevage* – ITE). Another problem with the Act is that it is forbidden to technicians to hold and prescribe veterinary medicines. This is contradictory with current practice as, since independences, technicians used to do so.

In Senegal, negotiations are ongoing and the National Assembly; on several occasions, rejected the proposed Act. Reasons for these rejections were, among others, the will to enforce private individuals to patronize others and also because the different entities could not agree on the term “*veterinary*” as defined in the LAROUSSE and ROBERT dictionaries. The “*mandat sanitaire*” (or animal health delegation of powers) to participate in the mass vaccination programmes for livestock, is delivered to veterinarians only.

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This restriction contributes to the drastic drop in vaccination coverage, whereas veterinary technicians possess all the qualities and experiences to contribute to a better vaccination coverage, under the supervision of the government Veterinary Services.

As a man is only defined by its training, we are open to a consensual dialogue in the interest of animal welfare, as we know that veterinarians alone cannot cope with all the work that still needs to be organised and regulated, in everyone's interest.

Country testimonies : Community-based animal health workers (CAHW) Legislation: The Kenya Veterinary Board

Mwenda Mbaka

Chairman
Kenya Veterinary Board
Kabete, Kenya

The *Kenya Veterinary Board* [KVB] is established according to the Veterinary Surgeons and Veterinary Paraprofessionals Act 2011 [VSVP ACT 2011] of the Laws of Kenya. It comprises of Veterinary Surgeons, Veterinary Paraprofessionals and some subject matter specialists appointed by the Cabinet Secretary in charge of Veterinary Affairs in the Country. Its function is to uphold veterinary standards by both Veterinary Surgeons and Veterinary Paraprofessionals during the delivery of Veterinary Services. Its creation is justified by the need to safeguard *Veterinary Public Health* [VPH] as well as the welfare of producers, professionals, input suppliers, the environment and animals, in line with World Trade Organization requirements which are realized through the World Health Organization for Animals [OIE] guidelines. The *Community Based Animal Health Workers* [CAHWs] were created to bridge the gap in Veterinary Services Delivery in the *Arid and Semi-Arid Lands* [ASAL] of Kenya, which was created by various socio-economic factors. Initially, the training of CAHWs was conducted by independently working NGOs. The lack of a structured training system produced CAHWs of diverse and dubious quality. The KVB, alongside some relevant stakeholders, intervened by developing a standardized training manual for the CAHWs. The training was conducted by KVB-approved approved trainers. However, the emergence of the VSVP Act illegalized the CAHWs and their training. The VSVP Act was designed to fast-track the country's compliance with OIE guidelines on the delivery of Veterinary Services. This illegalization led to the need to redefine CAHWs, so that their services could now be delivered by *Community Based Professional Animal Health Workers* [CBPAHWs]. The KVB is in the process of driving the changeover process. It is optimistic that it will be successful, because the country itself has assumed a Devolved Government system. This enables the ASAL Counties to prioritize their resource allocation. It is expected that livestock production will take precedence since it is the economic mainstay of the ASALs. Successful Livestock Production is anchored on not only efficient Veterinary Services Delivery, but also compliance with treaties and guidelines that will assure the producers a market access for their livestock and livestock products.

Country testimonies : Community-based animal health workers (CAHW) Reality check : *Vétérinaires sans Frontières* (VSF Germany)

Willy Duehnen

Managing Director
Vétérinaires Sans Frontières (VSF) Germany
Nairobi, Kenya

No country in Eastern Africa is able to offer in all its pastoral areas professional veterinary services. There are gaps in vet service delivery, disease surveillance and control of infectious diseases. Livestock owners buy and administer vet drugs and vaccines by themselves or use services of para-vets to fill these gaps. These interventions substitute the Government's responsibility in control of trans-boundary diseases and protect livelihood assets of rural people. In some East African countries, veterinary laws prohibit and criminalize the work of CAHWs. This creates a situation of fear, produces more gaps and does not improve an already precarious situation. While there may be unemployed vets in the country, living conditions and income expectations in pastoral areas do not match what vets expect. So they do not take up the opportunities offered. Other countries have supported and regulated the *Community Based Animal Health* (CBAH) approach. There are different degrees of cooperation between private vets and CAHWs, government vets supporting and supervising para-vets, and in many cases cooperation and financial support of CBAH systems from NGOs and UN bodies. In some fragile countries almost the whole veterinary work at rural level is delivered by local and international NGOs in cooperation with para-vet associations and CAHWs networks.

The quality of CAHWs work depends to a large extent on trainings they obtained. In many cases CAHWs do not have basic writing skills as there was no opportunity to visit a school. But having grown up with livestock, offers a profound understanding of basic animal health and husbandry practices, identify symptoms of sickness and having the skills how to handle animals. Communities have chosen the CAHW candidates out of their midst. Being members of the community allows them to move freely within the boundaries of the group, even in times of conflict and war. CAHWs are able to deliver basic vet services and disease control interventions for the benefit of the farmers and the country. They reach out to the most remote places on earth by walking on foot or using bicycles. They can deliver quality work in vaccination campaigns, disease surveillance and disease control. There is need to repeat trainings and register CAHWs, supervise their work and organize their interventions (provision of cold chain and vaccines; provision of instruments and other equipment). Their work must be rewarded by payment of incentives. It is of importance to accept their limited skills as they do not have a deep veterinary knowledge. Having said that, they are capable to follow basic antiseptic principles, do understand what a cold chain means, what vaccines do and how to calculate the dose for an injection. Under supervision, they should be supplied with a limited range of drugs and vaccines they have in use.

The economics of CBAH: public goods versus private goods. Cost-Benefit analysis: while a vaccination campaign produces in most cases tangible results for all (i.e. absence of a specific disease = public good) and is often supported by public funds, the treatment of a sick animal benefits in general a single livestock owner only (= private good). If not in an emergency situation, owners should pay for receiving treatments of animals (= private good). Public good interventions (= mass vaccinations and mass treatments) can be for free, subsidized or paid for by the livestock owners.

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CBAH makes use of available local human resources and knowledge and is therefore cost sensitive and cost efficient. It creates income for local people.

CBAH is not sustainable by itself (vet departments need public funds as well). The system needs external financial and technical support from donors, NGOs and the government. There is no doubt: CBAH is the cheapest and most efficient veterinary intervention in pastoral areas. In many cases, it is the only solution available.

Country testimonies : Community-based animal health workers (CAHW) Reality check : vaccination of poultry in Togo

Kawourou Tchintre

President

Association des Auxiliaires Villageois d'Elevage

Dapaong, Togo

Togo is a primarily rural country with 80% of the population relying on agriculture. In the livestock sector, and the poultry sector in particular, traditional production systems predominate in the country. The main bred species are chicken, guinea fowls, ducks, turkeys, pigeons, and, to a lesser extent, quails and geese.

The main cause of poultry mortality is by far Newcastle disease or pseudo-fowl pest and is, therefore, the top priority disease for control in Togo. Vaccination is implemented at national level by the Community-based Livestock Assistants (*Auxiliaires Villageois d'Elevage – AVE*) under the supervision of private veterinarians unified within the Consortium of Private Veterinarians in Rural Practice (*Groupement des Vétérinaires Privés en clientèle Rurale – GVPR*).

The Decree N°32/MAEP/SG/DEP (MAEP was the *Ministry of Agriculture, Livestock and Fishery* and is now the *Ministry of Agriculture, Livestock and Hydraulics*) from the 24/09/2004 regulates the AVE's activity and officially recognises it as a veterinary para-profession and defines it as an actor approved by the community from where it belongs, trained through short and intensive sessions and trainings, in charge of veterinary delivery and basic animal husbandry services, and is allowed to use and manage a stock of non-hazardous veterinary products; he is paid by the recipients.

In the National Agriculture and Food Security Investment Plan (*Programme National d'Investissement Agricole et de la Sécurité Alimentaire – PNIASA*) currently running, the Agricultural Sector Support Project (*le Projet d'Appui au Secteur Agricole – PASA*) is organising, among other activities, the fight against the main diseases in small livestock, is running its 4th vaccination campaign, fully including AVE in the fight against the Newcastle disease.

More than 3,000 AVEs have been trained or re-trained through the PASA programme and are unevenly spread in the different areas of the country. They are actively, but also exclusively, engaged in the fight against Newcastle disease, with 25 members of the GVPR mandated by the Ministry to implement the vaccination campaign against *Peste des Petits Ruminants* and Newcastle.

5. Country testimonies : chief veterinary officers

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Country testimonies : chief veterinary officers : South Africa (host)

Sikhumbuzo Mbizeni

Representative of the Chief Veterinary Officer of South Africa
Deputy Director: Disease Control
Directorate of Animal Health
DAFF
Pretoria, South Africa

Country testimonies : chief veterinary officers : Benin

Byll Orou Kperou Gado

Director and OIE Delegate
Department of Livestock Services (*Direction de l'Élevage*)
Ministère de l'Agriculture, de l'Élevage et de la Pêche
Cotonou, Benin

Country testimonies : chief veterinary officers : Uganda

Nicholas Kauta

Director and OIE Delegate
Directorate of Animal Resources
Ministry of Agriculture, Animal Industry and Fisheries
Entebbe, Uganda

The legal basis for indulging in veterinary services delivery in Uganda is the veterinary Surgeons Act 1958. Four Sections (5,13,14 and 24) have direct bearing on delivery of services by Veterinary paraprofessionals and CAHWs. Section 5 restricts registration for veterinary practice to holders of degrees and diploma in veterinary science/medicine from Universities recognised by the *Uganda Veterinary Board* (UVB).

The Uganda VSB has never registered diploma holders but they are in practice in Uganda. In addition certificate holders and CAHWs are operating in the country under different arrangements.

Section 13 criminalizes practice by unregistered or unlicensed persons while section 14 denies unregistered persons legitimacy to lay claim to payment for a service delivered in veterinary practice.

The above notwithstanding Section 24 of the Act on Exemption states that *“Nothing in this Act shall be deemed to prohibit or prevent the practice of veterinary surgery by any person in the service of the Government.”*

Section 24 creates separate camps in the administration of veterinary services in the country – the government employees who are not subject to the Act and the private sector that is subject to the Act.

The GoU remains the largest employer in veterinary services delivery although private practice is encouraged. The protection afforded by section 24 weakens the VSBs actions because very few persons subscribe directly to the VSBs authority. Within the 1960s (before structural adjustment programmes took root) the government grass route veterinary structure included veterinary scouts (community based informers of disease picture) at the lowest level followed by veterinary field assistants (community based persons who assisted to mobilise livestock keepers during programmes like vaccinations and construction of cattle crushes. The veterinary assistants constituted the lowest level of trained persons and were certificate holders after two years training in a national recognised institution. Above the veterinary assistants were Animal husbandry officers who undertook an extra year of training after the veterinary certificate course. Veterinary surgeons (degree holders) are a step above the AHOs.

SAPs dropped veterinary scouts, field assistants and veterinary assistants from the employable category by government.

The vacuum created by the elimination of the three categories became apparent but government did not re-estate them (remember : SAPs were meant to reduce government spending and encourage private sector growth)

The NGOs and other organisations like FAO started to support the CAHWs as a gap filler. FAO is on record as having trained and deployed (with government approval) over 600 CAHWs in a single support programme to Karamoja Region – a hard to reach and historically insecure part of Uganda which had about 20% of the national herd but poorly served by veterinarians.

Unfortunately NGO and FAO support is never continuous over a long period of time and the CAHWs often find themselves short of a reference point for support because government has no provisions for supporting them. The review of the Veterinary surgeons Act is expected to give legitimacy to Veterinary paraprofessionals to practice through a registration exercise and to remove the protection afforded to government employees so that they practice under similar conditions as private practitioners. This is a sound approach because more than 80 % of the animals are attended to by categories lower than veterinarians.

6. Country testimonies : associations of veterinary para-professionals

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Country testimonies : Associations of VPP : national association (SAAVPP) South Africa

Johan Oosthuizen

President
South African Association of Veterinary Para-Professionals (SAAVPP)
Lecturer
University of South Africa (UNISA)
Pretoria, South Africa

Country testimonies : Associations of VPP : South Africa (nurses)

Theresa Lotter

Representative of the Veterinary Nursing Profession
on the South African Veterinary Council
Veterinary Nurses Association of South Africa (VNASA)
Pretoria, South Africa

1. History:

- In the 1970's, veterinarians identified the need for trained and qualified assistants in private practice. Duties would be similar to those carried out by medical nurses.
- A diploma course was established, with the first group of Veterinary Nurses who qualified in 1978. The title of "sister" was accepted for Veterinary Nurses.

2. Scope of Practice (abbreviated):

- Basic animal care including grooming procedures, dental scaling and polishing.
- The collection and processing of samples.
- The examination, recording and reporting findings to a veterinarian of samples, including haematology and blood chemistry, urine examination, stool examination, skin and scraping examinations, rumen fluid examination and examinations in which the Woods lamp is used.
- The administration of injections and medicines per os, subcutaneously, intramuscularly, intravenously or intraperitoneally.
- The administration of pre-medication and the induction and maintenance of anaesthesia.
- Assistance with diagnostic imaging, including taking of radiographs, maintenance of diagnostic imaging apparatus and record keeping of diagnostic imaging.
- The administration of enemas.
- The passing of stomach tubes.
- Intravenous catheter placement and the infusion of fluids and blood including the collection of blood for transfusion.
- Supervision of animals giving birth and caring for newly born animals.
- Wound care, the lancing of abscesses, superficial skin stitching, placing of dressing and bandages, including Robert Jones bandages.
- Dispensing of medicines in accordance with relevant legislation.
- Physical rehabilitation.
- Assisting a person registered to practice a Veterinary profession with surgical procedures.

3. Job opportunities:

- Private Practice
- Animal Welfare Organisations (Focus on primary animal health care and public education)
- Community welfare clinics (Focuses on primary animal health care and public education)
- Industry (The sale and product management of veterinary pharmaceuticals, specialised nutritional products and equipment)
- Wildlife & Zoos (Patient care; specialised feeding; rehabilitation; anaesthetic monitoring and public education)

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- Academia (working in the training hospital as veterinary nurses; training of veterinary and veterinary nursing students)
- Research Facilities (duties are similar as to private practice, but adapted for laboratory animal species; high ethical standards)
- Other (Fields of interest may include pet grooming; animal behaviour; boarding & breeding facilities and rehabilitation)

4. Training:

- Currently a full time 2-year diploma course is offered at the Veterinary Academic Hospital at Onderstepoort.
- A 3-year full time degree course is being developed.
- Training includes theoretical and practical training. Practical training is done in the various clinics of the Academic hospital, with elective opportunities in private practice, animal welfare organisations, zoos, rehabilitation centres and research facilities.

5. Curriculum:

- First year (Anatomy; Pharmacology; Physiology; Veterinary ethology; Laboratory technique; Microbiology; General Nursing & Parasitology)
- Second year (Medical nursing; Surgical nursing; Theatre practice; Anaesthesiology; Radiography & Reproductive nursing)
- Total number of SAQA credits = 355

6. *Veterinary Nurses Association of South Africa* (VNASA)

- The Association represents the profession in all aspects

Country testimonies : Associations of VPP : South Africa (animal health technicians)

William Kutu

Chairperson
South African Animal Health Association
Pretoria, South Africa

Country testimonies : Associations of VPP : Ethiopia

Mirtneh Akalu Yilma

President

Ethiopian Animal Health Professionals Association (EAHPA)

Debre-Zeit, Ethiopia

The need to develop and promote the profession of animal health in terms of practice, training and research; to elaborate, introduce and enforce a “*Professional code of Ethics*”; to create favorable professional conditions; and to prevent infectious diseases with the intent of unity urged the establishment of the *Ethiopian Assistant Veterinarians’ Association* (EAVA) in 1970. The association is the second oldest professional association in Ethiopia. Since its establishment the association played a vital role for the development of animal health profession in the country. One of the grand contributions made by EAVA and its members is the eradication of Rinderpest disease from Ethiopia. EAVA has re-structured itself and became the *Ethiopian Animal Health Professionals Association* (EAHPA) in 2010. Today, EAHPA has more than 5,600 members working on veterinary clinics, laboratories, research institutions, higher institutions, abattoirs and industries who take care of the health and well-being of humans, animals, and the environment. The members of the association are working in every regions, zones, districts and peasant associations of the country, which enabled the association to work on the entire veterinary services of the country.

Ethiopia, endowed with livestock wealth which makes the country among the richest country in livestock population with more than 52 million heads of cattle, 46 million small ruminants, about 9 million equines and 2.3 million camel and this resource contributes to 12% of the total *Gross Domestic Product* (GDP), over 45% of the agricultural GDP and 31% of the total agricultural employment. Besides, the agricultural practice is based on livestock, either to use for farming related activities or as a livelihood. Despite the huge livestock resource, the benefit derived is by far below from the livestock potential. This is mainly associated with the existence of animal disease affecting both production and productivity, lack of proper veterinary service, and poor management system.

The current delivery of animal health services is inadequate both in terms of coverage and quality. There are very few private veterinary service providers, few private veterinary pharmacies and very few *community animal health workers* (CAHWs) often supported by NGOs. The zonal and regional bureaus currently face problems in retaining their veterinary field personnel, especially in the more remote pastoral areas. Only 45% of the country is served by animal health delivery systems, Thus under the current system delivery of both public and private goods is unsatisfactory.

Animal-health professionals from the lower educational level to the higher university degree make a huge difference in delivering animal health service. Currently, it is estimated that there are more than 10,000 animal health professionals employed in the public sector to delivery veterinary service. VPP are duly engaged in animal disease prevention and treatment. In recent years, with the expansion of higher education institutions in Ethiopia a curriculum has been designed for veterinary technicians, diploma holders in animal health and animal production science to upgrade their educational background to Bachelor of Science in animal health. Beside, *Community-based animal-health workers* (CAHWs) are community members who have received basic, non-formal training in animal-health care. They engage in the prevention (vaccination) and treatment of animal diseases. CAHWs have played an important role in extending veterinary services in Ethiopia in the past years.

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Country testimonies : Associations of VPP : Malawi

Patrick Saini

President
Veterinary Assistants Association of Malawi (VAAM)
Lilongwe, Malawi

Malawi is one of the African countries located in the southern part of the continent with a total land area of 118,484 km². The country has a human population of 16.3 million. Malawi has 14 Professional Veterinarians and 5 of them are Private Veterinarians while the rest are state veterinarians.

The current livestock population for Malawi is 1,110,560 for cattle, 4,442,907 goats, 2,160,670 for pigs, 228,649 for sheep and 44,672,086 village poultry.

The Department of Animal Health and Livestock Development, in conjunction with SADC Animal Disease Control Project in the Ministry of Agriculture, Irrigation and Water development, initiated and facilitated the formation of the *Veterinary Assistants Association of Malawi* (VAAM) in 1998. This is a non-profit making organization whose members are all Veterinary Para – Professionals in the country. The association attracted and registered almost all Veterinary Para – practitioners as members especially those from the public sector.

The Association was formed with the following objectives:

- To enable Malawian livestock farmers have health animals by ensuring that drugs and quality veterinary services are timely provided to the farmers.
- To maintain the ethics and honor of the veterinary profession in the country through meetings with its members and farmers.
- To foster good relationship between members of the association, government and other organizations working with farmers in the country.

The Association is a member of The Board of Veterinary Surgery which is the sole registering authority in the veterinary profession in Malawi.

Currently the association has a membership of 241 both public and private Para - veterinary practitioners across the country. The association during its existence has also witnessed the mushrooming of veterinary drug stores and clinics being run and managed by its members.

However the association (VAAM), has a number of challenges and the major one being lack of financial resources to be used in conducting meetings and facilitating refresher courses for old serving members and induction courses for newly recruited Para – Veterinarians, office equipment and stationery for printing technical updates and messages for the members.

And as a way forward, members continue paying their annual membership fees though not enough and members are also writing proposals to various local organizations and donors for funding to its planned programmes and activities.

Country testimonies : Associations of VPP : Kenya

Robert Kariuki Muthama

President
Kenya Veterinary Para-professional Association (KVPA)
Nairobi, Kenya

About the *Kenya Veterinary Para-professional Association* (KVPA)

KVPA is a professional membership organization for all veterinary para-professionals in Kenya who have undergone a minimum of two years post-secondary education in Animal Health from recognized training institutions of Animal Health. KVPA is a registered association with the registrar of societies to represent the Veterinary Para-professionals in Kenya and beyond. KVPA was formed in the year 2012 by a group of veterinary Para-professionals who felt the need to form a professional body to represent their welfare issues. This was after the Enactment of the Veterinary Surgeons and Veterinary Para-Professionals Act, Number 29 of 2011 (VSVP Act, 2011).

Objectives of the Kenya Veterinary Para-professional Association

To represent members and front their welfare issues as required under The VSVP Act, 2011, hereinafter, the Act. To promote, safeguard and protect the health of animals, as defined under the above Act. To offer capacity building to livestock farmers, and other animal keepers where necessary, for the sake of promoting animal health and new technologies as a source of livelihood and food security

Categories of veterinary Para-professionals Kenya

1. Veterinary technologist
 - a) Degree (Bachelors) holders in Animal Health
 - b) Diploma Holders in Animal Health
2. Veterinary technicians who are certificate holders in animals health trained mostly in government training institutions called the *Animal Health and Industry Training Institutes* (AHITI's)

Training of veterinary para-professionals in Kenya

There are 4 government training institutes in animal health and meat inspection in Kenya which produces an average of 350 veterinary paraprofessionals each year since early independence in Kenya. There are other institutions training in animal health mainly the universities which are private and public at the same time. The number of those registered training institutions range from 7-10 which graduates an average of 400 veterinary paraprofessionals each year of recent past.

There is only one university in Kenya that trains Veterinary Surgeons, which churns out an average of 50 veterinary surgeons a year from late 1950 when it was established. Bringing the ration of Vet Surgeon to Vet Para-professional to 1:6 respectively

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History of Veterinary Paraprofessionals in Kenya

The first veterinary paraprofessionals to be trained in a government training institute, was in the year 1965, who were absorbed in to the government after graduation. However the employment stopped in the year 1988 after the privatization of veterinary services among them, Artificial Insemination. Those trained after 1989 joined the private sector as technicians who were unregulated since there was no law regulating them. These lead to the formation of the first veterinary paraprofessional association, in the year 1995. Those who were civil servants and championed for the creation of the association were actually fired from their jobs.

This awakening resulted to the creation of a new Act (Veterinary Technicians Act) which the Veterinary Technicians sponsored themselves but on submission for enactment the animal health component was struck out, thus making it irrelevant to veterinary paraprofessional's recognition.

Later in the year 2011 the Veterinary Surgeons Act was repealed to include the Veterinary Paraprofessionals, some veterinary paraprofessionals participated in the process but not satisfactorily. This marked a new beginning for veterinary paraprofessional being recognized by the ne VSVP Act, 2011.

“The veterinary para-professionals are of great importance in disease control and the animal welfare advocacy especially in ASAL's. Therefore there is need to empower them in terms of opportunities and recognition. The existing vet associations in Africa need bridge the gap between the Vet surgeons and Para-professionals.”

Country testimonies : Associations of VPP : Burundi

Etienne Bayubahe

President

Association Burundaise des Professionnels de la Zootechnie

(Burundi Association of Animal Production Professionals)

ABPZ

Bujumbura, Burundi

Burundi is one of the smallest African countries with an area of 27,834 km² and a population of eight million (population census from 2008).

The economic constraints due to the socio-politic crisis that shook the country since 1993 did not spare the livestock sector and its infrastructures. Animals were stolen, culled or sold off to escape robberies. The crisis generated a reduction of the livestock population (more than 20% for bovines and even more for small livestock).

With an annual demographic growth of 3%, we are witnessing a fragmentation and an overexploitation of arable lands that lead to a decrease in pasture areas.

Therefore the Veterinary Para-professionals Association of Burundi (*Association des Para-Professionnels Vétérinaires du Burundi*, ABPZ) has concentrated its attention and efforts in the veterinary medicine field to support farmers and improve the livelihood of vulnerable populations.

This summary describes the main issues bothering the Veterinary Para-professionals Association of Burundi and that will be submitted during the Conference. Those issues are:

- The goals of the *Association Burundaise des Professionnels de la Zootechnie*
- Contribution of the Burundian para-professionals in improving livestock productivity
- Collaboration of Veterinary para-professionals with veterinarians in Burundi
- Organization of farmers and creation of “Centers for supplies, production and delivery” (*centres d’approvisionnement- production- écoulement, CAPEC*)
- Challenges and entry points.

Country testimonies : Associations of VPP : Tanzania

John Chiwaligo

Ex-Chairman
Tanzania Veterinary Paraprofessional Association
TAVEPA
Dar-es-Salaam, Tanzania

The Tanzania livestock sector plays a vital role in supporting livelihood of rural farmers in areas of products such as meat, milk, eggs, generate manure and draught power common means of saving whatever has been accumulated overtime and, enable poor people to diversify and manage risks better.

Livestock keeping is viewed by many poor people in rural areas of Tanzania as one of the means that can support their livelihood at households, however, their ability to do so is always undermined by re-emergence of animal disease due to inadequate animal health services, lack of demarcation of village land for various agricultural activities and as such most of the land is being used for crops production, while livestock are left to graze on the remaining land which is too small to accommodate all animals available, subsistence animal husbandry inadequate feeds, threats of diseases and inadequate trained manpower to mention a few.

For the realization of the livestock sector to support the livelihood of rural livestock farmers, issues of the land tenure system, livestock management, livestock feeds and diseases control need to be addressed. The need to have frontline extension cadre known as veterinary para-professionals who are well trained, an alternative approach to the delivery the animal health services to the poorest of the poor in the rural areas, in order to support their livelihood, is crucial. To implement this mode effectively, there is a need to establish a coordinated animal health services structure that will involve all stake holders in the livestock sector.

Country testimonies : Associations of VPP : Nigeria

Godfrey Osuji

President

Nigeria Association of Animal Health and Husbandry Technology (NAAHHT)

Aba, Nigeria

Attention is drawn to the resentment and dissension shown by some stakeholders especially the veterinarians in the use of the prefix “Veterinary” and to support the use of the prefix “Animal Health” in addressing the para-professionals since the *World Organization for Animal Health* (OIE) has adopted it as their official title.

In view of training and learning, the scope of practice of suitably qualified *Animal Health Technologists* (AHT) should be strengthened to allow for autonomous practice in order to stop the manpower drift of disenchanted members to other menial or unrelated professions, to the detriment of animal health practice, as is currently noticed in some countries in Africa, including in Nigeria.

Legislative backing coupled with well-defined roles should be entrenched through the establishment of regulatory registration boards or councils for the para-professionals just like the nurses. This will reinforce the confidence of the para-professionals in entering into any harmonious relationship with other registered stakeholders in animal care and medicine including the veterinarians. It will also dispel any form of fear arising from subjugation or subversion, since they would enjoy an acceptable representation in the formation of any form of VSB.

This attitudinal shift has been tested and found workable in Nigeria, although its sustainability was broken because of corporatism, which is certainly a bane of professionalism was brought in to bear by a few depraved persons.

As for the VSBs, it is our view that veterinary authorities of participating countries need not automatically be their VSBs but should be part of it.

These ideals are panacea for strengthening the bond between the veterinarians and para-professionals if World Organisation for Animal Health must catch up with the *World Health Organization* (WHO) in Africa.

Veterinary para-professionals and mutual recognition agreements in the *East African Community* (EAC)

Timothy Wesonga

Senior Livestock and Fisheries Officer
Agriculture and Food Security Division
East African Community
EAC
Arusha, Tanzania

7. Country testimonies : other regions

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Community Based Animal Health Workers : An Experience of Nepal

Dhan Raj Ratala

Chairperson
Nepal Veterinary Council
Kathmandu, Nepal

Nepal is a small land locked country between India and china with a human population of 27 million and more livestock per hectare of cultivated land than any other country in the world. Agriculture is the principal economic activity and 87% of the population keep some form of livestock at home with 5.8 of livestock and poultry per house hold which contribute 15 % of the GDP.

The *Government of Nepal* (GON) is responsible providing Veterinary services to the farmers through its network of 75 District Livestock Service Offices (DLSOs) and 1000 Livestock Service Centers which covers about 23% farm households. Fiscal policy of GON, 2015 have announced "one village Development Committee one Veterinary Junior Technician with an addition of 3276 more human resources in the National Veterinary Service.

From 1957 to 1987, Department of Livestock Services in collaboration with *Institute of Agriculture and Animal Science* (IAAS), has produced more than 10,000 multipurpose *Junior Technical Assistants* (JTAs) for veterinary and agriculture. Since 1989, *Council for Technical Education and Vocational Training* (CTEVT) provides Veterinary Junior Technical Assistant training and train more than 700 VPPs per 15 months' time.

In 1980, GON started Village Animal Health Workers (VAHW) also known as *Community Animal Health Workers* (CAHW), training with a vision to build self-reliant healthy sustainable farming communities and to improve the quality of life of livestock dependent poor, marginalized and needy communities by providing animal health services "One Village one CAHW". The duration of training is 35 days with fixed curricula and training model.

Considering the high demand for CAHWs by donor supported projects, cooperatives, farmers groups and Associations, business and industries for their promotional activities GON delegated the training to diverse NGOs under the supervision of the government. CAHWs trained by NGOs and other agencies were confined to the project command areas without official recognition until 1997 and with the collaboration of DLS, CTEVT started *National Skill Test* for the CAHW. Results of the skill test so far indicate that more than 50% working CAHWs pass the National Skill Test.

CAHWs play a critical and essential role in the national animal health programme and extend the reach of veterinary services to the poor, marginalized and needy communities of the rural and remote areas who would otherwise have no access. Directly or indirectly GON has provided them the responsibility of primary animal health care. Their role was found more valuable as a skilled volunteer/ front line service provider during insurgency and recent earthquake disaster in Nepal. Services provided by the CAHWs has significantly reduced the morbidity and mortality of major animal diseases and there by increased production.

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DLSO organize one day orientation workshop annually to discuss the problems of CAHWs and possible solution. On the availability of revolving fund, selected CAHWs provided financial support without any interest to promote the clinical practice and CAHWs liable for policy based subsidized inputs and loans from government and financial institutions.

The rate of self-employment and sustainability of CAHWs has been used as primary indicator for the success of the training. This rate has been estimated more than 50% in the periphery of major livestock producing areas. DLSO chief is responsible for monitoring and supervision of CAHWs. Independent report of the evaluation indicates that considering the situation CAHWs are working and the service provide by them is satisfactory and both farmers and CAHWs have benefited. Issues like misuse of drugs leading to drug resistance, late reporting of disease outbreak, demand for specialized services and weak monitoring and supervision due to insufficient number of veterinarians and absence of performance assessment of individual CAHW and service provided by them is the subject of debate. Many of the trained CAHWs after refresher training or some specific training, have diverted from service oriented (primary animal care and treatment services) activities to business oriented activities as Agro-vet shop, dealer or supplier of feed, chickens, and vaccines. Again policy makers have to think how to retain them as a CAHW to improve quality of animal health services, minimize risk and reduce the cost of service delivery.

Subject to approval of the parliament, amendment of Nepal veterinary council Act is in the process and VPP and CAHW will be regulated (registration /licensing as per the academic qualification) up on the fulfillment of the council standards.

Review of VPP and CAHW Training policy to identify the strength and weakness of training is needed to update the training curricula covering the concept of zoonoses, food safety, disease surveillance and animal welfare. Mainstreaming VPP and CAHW within the chain of command in the national Veterinary Service system based on the legal, technical and veterinary governance system is also needed.

The role of veterinary para-professionals in clinical service delivery and public-private partnerships : A Case Study from Afghanistan

David Sherman

Coordinator, Veterinary Legislation Support Programme
OIE, Regional Activities Department
Paris, France

Afghanistan is a largely agrarian nation with limited arable land but considerable grazing land. As such, livestock are very important to livelihoods and the national economy. The country has experienced over 35 years of continuous military conflict and civil unrest since 1979, when the country was invaded by the Soviet Union. As a result of the ensuing conflict, clinical veterinary services, which had been available only through government, essentially disappeared.

During much of the 1980s and early 1990s, whatever veterinary services were available to farmers and herders were provided mainly by *non-governmental organisations* (NGOs) working independently or through United Nations agencies, notably the *United Nations Development Programme* (UNDP) and the *Food and Agriculture Organisation* (FAO). However, those veterinary interventions were provided largely in the context of emergency relief and were non-sustainable. FAO efforts to promote a sustainable approach to veterinary service delivery later in the 1990s were undermined by the emergence of a severe drought that killed large numbers of livestock and by the decision to pay salaries to the veterinarians and veterinary para-professionals that staffed the FAO-sponsored clinics.

Following the fall of the Taliban and the establishment of an elected government, donor agencies began to look at opportunities for shifting donor support from emergency relief to long term development. In the agricultural sector, in 2004, the *United States Agency for International Development* (USAID) funded a three year project to develop a national, district-based network of veterinary field units (VFUs) staffed by unsalaried veterinary para-professionals who would deliver therapeutic and preventive veterinary services to farmers and herders on a fee-for-service basis. By the end of that project, 388 veterinary field units were operating in 274 districts in 31 of the country's 34 provinces, with an overall staff of 585 mainly veterinary para-professionals.

Ten years later the VFU network, supported by continuing education for veterinary para-professionals, an active extension programme, and a reliable supply of quality vaccines and medicines, is still actively providing basic veterinary services to farmers and herders. In the meantime, donor agencies, notably the European Commission, also have invested in revitalising the government veterinary services to restore regulatory veterinary medicine in the country. Over time, government has recognized that the VFU network, and the veterinary para-professionals that staff it, are a valuable resource for obtaining data on the animal health situation in a country with limited transportation and telecommunication infrastructure and few graduate veterinarians in the field. Recently, government, with the support and encouragement of donors, has begun to develop partnerships with the VFU network in the area of disease reporting, disease surveillance and disease control activities, through the establishment of sanitary mandates.

This presentation will provide an overview of the development of the VFU network, emphasising those aspects which have facilitated its sustainability. It will also describe how the public-private partnership between the government veterinary services and the VFU network is evolving to produce an integrated national veterinary service in a country still confronted with armed conflict and civil instability.

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8. Veterinary oversight, veterinary medicines and vaccines

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OIE standards and guidelines (including veterinary drugs)

Etienne Bonbon

President
Terrestrial Animal Health Standards Commission
OIE
Paris, France

The OIE mandate aims at improving animal health and welfare and veterinary public health, and to consolidate animal position worldwide.

One of the fundamental tools of this organisation with a 180 countries' membership to fulfil its mandate is its range of standards and guidelines, essential to globally implement efficient interventions.

OIE standards rely on up-to-date scientific and technical knowledge. They can be found in the Terrestrial and Aquatic Code and Manual. Well implemented, they protect animal health and welfare and veterinary public health during the production and trade of animal and animal products, as well as during animal use.

In the current context of globalisation, animal health measures facilitating international trade of animal and products of animal origin, and at the same time protecting public and animal health without imposing unjustified commercial restrictions are getting more important. Thus, OIE became the leading standard-setting body for animal health and animal diseases in the *Agreement for Sanitary and Phytosanitary Measures* (SPS Agreement) of the *World Trade Organisation* (WTO).

Veterinary Authorities and others relevant authorities have to apply all the standards included in the Terrestrial and Aquatic Codes in order to implement measures for early detection, in-country declaration, the reporting and control of pathogens, including zoonotic organisms for terrestrial and aquatic animals, and preventing their spread via international trade in animal and animal products, without initiating unjustified sanitary barriers to trade.

Those codes contain chapters especially focusing on relevant use of antimicrobials.

The role and responsibilities of all stakeholders in animal health and welfare and veterinary public health sectors are clearly defined, including the key role of the Veterinary Authority.

The Manual of Diagnostic Test and Vaccines for Terrestrial Animals and the Manual for Diagnostic Tests for Aquatic Animals provide a harmonious approach for the diagnostic of diseases describing internationally recognised diagnostic techniques, and also baseline procedures for the production and control of vaccines.

The OIE periodically updates its international standards, as new scientific information is made available, along clear and democratic processes. To adopt a standard, it has to be approved by the World Assembly of Delegates for OIE, the highest authority in the organisation meeting once a year in May, for the General Session of OIE.

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Delivery systems in animal welfare / animal protection

Benson Wachira Kariuki

Chief Executive Officer
Pan-African Animal Welfare Alliance
PAAWA
Nairobi, Kenya

Delivery systems in food safety and meat hygiene : Kenya

Agnes G. Maina

Deputy Sub County Veterinary Officer (Kiambu County),
Ministry of Agriculture, Livestock and Fisheries,
Kiambu, Kenya

Food Safety refers to practices that preserve food quality to protect consumer health. Food safety in the Directorate of Veterinary Services (DVS) is under its Veterinary Public Health and Animal Products Division. The DVS regulates inspection and certification of animal origin foods and animal feeds; regulates abattoirs, and communicates food safety risk through reporting. It tests for residues on a small-scale basis through private and public facilities; and by its authority research is conducted by individuals and organisations. It is guided by Acts e.g. Meat Control Act, Veterinary Surgeons and Veterinary Para-professionals Act and Prevention of Cruelty to Animals Act. It collaborates with other sectors in implementing Acts relevant to food safety e.g. Public Health Act, Stock and Produce Theft Act, Wildlife Management and Conservation Act.

The DVS is responsible for animal health and animal product standards, and is the enquiry point for the OIE. Many food safety risks arise pre-slaughter and can be reduced through the standards and practices recommended by OIE and Codex Alimentarius Commission. Furthermore, many food safety standards for Kenyan products are set based on guidelines developed by these bodies. This has been made possible by Kenya's participation in the meetings held by these bodies.

The food safety delivery systems face challenges e.g. poor compliance with sanitary measures, inadequate capacity building, weak link between research, policy and extension; and insufficient resources. Despite the challenges, successes have been realized. Meat inspection has been taken over from the State Department of Health in most counties and plans exist to complete the take-over. Meat inspectors have been trained continuously, abattoirs and meat transport containers have been licensed annually, sanitary documents have been issued at abattoirs for all meat consignments, and surveillance of meat sale outlets has been conducted regularly.

The Constitution of Kenya (2010), created a devolved system of governance. An effect of devolution was transfer of some veterinary functions to county governments; others remained under the National Government. For smooth interaction between the two levels in food safety delivery systems, the Draft Veterinary Policy (2015) proposed the National government's role as development of protocols for Food Safety Assurance e.g. codes for inspection of animal origin foods; and provision of regulation for animal feed production. County governments' role is implementation of these protocols and regulations. Additionally, both should establish 'One Health' legislation and platforms to manage animal-based food hazards. With transition to devolution, challenges surfaced e.g. disharmony of fees and regulation across counties. However, there are successes such as closer collaboration with other relevant sectors e.g. Health, Livestock Production; and increased food safety capacity-building forums for stakeholders.

Qualification for a veterinary paraprofessional is animal health certificate/diploma training lasting at least two years. For Meat Inspectorate, further certificate-level training is undertaken. Supervision of paraprofessionals is by Veterinary Surgeons who have graduate level training. Paraprofessionals contribute to the delivery systems as follows: (a) Manage and report diseases including those associated with Food Safety. (b) Conduct ante- and post-mortem inspection at slaughter. (c) Create food safety awareness. (d) Oversee hygiene and standard maintenance in abattoirs and in meat transport. (f) Ensure post-abattoir compliance with regulation through Meat Surveillance. (g) Aid in minimization of antimicrobial resistance and drug residues via prudent veterinary drug usage. (e) Ensure humane slaughter which facilitates proper carcass bleeding thus improved keeping quality. (h) Issue Sanitary Documents for meat and live animal transport. (i) Aid in 'agrovet' supervision to ensure appropriate animal feed storage that in turn prevents contamination and spoilage; and to ensure controlled sale of veterinary drugs. (j) Participate in collaborations between the DVS and other sectors.

Veterinary paraprofessionals play a vital role in food safety delivery systems for the benefit of society. FAO indicates existence of significant global food safety challenges, and in their role, paraprofessionals are intimately involved in overcoming them. Additionally, increased food trade, rising demand for animal protein and increasing consumer awareness of food safety are indicators of the immense influence paraprofessionals have now, and will continue to have.

Delivery systems in rural and poor settings : policy perspectives

Lois Muraguri

Director
Policy & External Affairs
Global Alliance for Livestock Veterinary Medicines (GALVmed)
Edinburgh, UK

Delivery systems in rural and poor settings : marketing perspectives

Christie Peacock

Founder and Chairman
Sidai Africa Ltd,
Nairobi, Kenya

Livestock farmers in Africa struggle to access good quality inputs, effective knowledge and fair markets. In most countries the government veterinary service is under-resourced and unable to provide a full range of services to livestock keepers. Regulation of the emerging private sector is very weak allowing unqualified people to sell livestock products, including *Prescription Only Medicines* (POMs) directly to farmers. Many of these products are of sub-manufacturing standard, or are counterfeits. This leads to extensive misuse of drugs through poor diagnosis, incorrect product use and under-dosing. Drug resistance is rising in anthelmintics, antibiotics, acaricides and trypanocides.

Sidai Africa Ltd is a pioneering company that aims to open access to good quality livestock services to farmers and pastoralists in Kenya. It is setting up a national network of professionally-managed branded Livestock Service Centres across Kenya which only stock quality products and offer a full range of livestock services. Sidai places emphasis on herd health, preventing disease and improving management wherever possible. Sidai's buying power is already improving the profitability of Sidai centres enabling them to offer professional services including clinical services, AI, vaccination, simple diagnostics and farmer training. In 3 years Sidai has opened 120 centres serving 100,000 farmers in Kenya. Sidai centres are run by technically-qualified professionals who may be Sidai staff or business partners operating as franchisees using the Sidai brand.

Sidai's unique network, overseen at all levels by qualified veterinarians, provides a professional framework within which veterinarians, livestock technicians, dairy technologists, breeders and nutritionists can work together providing a complete service to farmers and pastoralists. Sidai is aware of the need to enhance a basic veterinary training with higher level technical, as well as business, and farmer communications skills. Sidai is a Kenya Veterinary Board-approved provider of professional training courses. It is planned to start a Sidai Academy in 2016 offering industry-focused practical training to Sidai staff, franchisees and the wider profession. Sidai will also expand its intern programme for veterinary graduates in the near future.

Delivery systems in rural and poor settings : Community Veterinary Clinics : South Africa

Dave Kenyon

CVC Director

South African Veterinary Association Community Veterinary Clinics (SAVA-CVC)
Pretoria, South Africa

Mission of SAVA-CVC

The South African Veterinary Association *Community Veterinary Clinics* (SAVA-CVC) main function is to render primary veterinary services (vaccinations, parasite control and sterilisations) to disadvantaged communities who have little or no access to veterinary services. We currently have 29 clinics nationwide, reaching 80 communities and approximately 24 000 animals annually.

What are the benefits to the Veterinarians involved?

1. Reduction in SAVA membership fees (50%).
2. Controlling infectious diseases in their area.
3. Education and compassion for human life.
4. Marketing and PR in their practices.
5. Separating charity from regular clinical work.
6. More cohesive veterinary community.
7. Access to CCS veterinarians.

How does the CVC work?

CVC head office's main function is a central facilitation mechanism: logistics, donations, funds, cooperation agreements. Vets donate their time and facilities to deliver primary health care.

Misconceptions.

1. CVC has lots of money.
2. Donations are used up in administrative functions.
3. It is difficult to open a CVC.

CVC Team:

CVC Directors: Dr. Dave Kenyon, Dr. Paul van Dam, Dr. Louween Edwardes, Dr. Rebone Moerane, Dr. Thireshni Chetty

CVC Staff: National Coordinator: Elize Joubert, Gauteng Coordinator: Elsa Daniels, Driver and storeroom manager: Vhonani Manenzhe, Fundraiser: Elmien Delport

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9. The training of veterinary para-professionals in Africa

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The training of veterinary para-professionals in Africa : Training and role of the Veterinary Statutory Bodies (VSB) : the Namibia model

Anna Marais

Registrar
Namibian Veterinary Council
Windhoek, Namibia

The Veterinary and Veterinary para-professions Act, Act 1 of 2013, provides amongst other functions for the regulation of persons practicing veterinary professions and veterinary para-professions in Namibia. The Act further specifies the eight categories of veterinary para-professions registrable in Namibia. These are as follows:

- Veterinary Nurse
- Animal (Veterinary) Health Technician
- Veterinary Technologist
- Veterinary Laboratory Scientist
- Wildlife Para-professional
- Veterinary Physiotherapist
- Equine Dental Technician
- Veterinary Para-professional in assisted animal reproduction

The Regulations to the Act outline the subject courses, curriculum requirements and qualifications required for each category of veterinary para-professional who wishes to be registered in Namibia. The Regulations specify that when considering an application, Council may register graduates from an accredited institution previously audited by a team of experts appointed for such purpose, following approved guidelines. Applicants from any non-accredited institution are invited to sit a Council examination for registration. Council may also accept an examination conducted by another statutory body.

When Act 1 of 2013 was promulgated, a “grandfather clause” made provision for registration of veterinary para-professionals who did not hold the specified diplomas or degrees, but who had practiced the relevant veterinary para-profession in Namibia for at least five years prior to publication of the Regulations.

Until recently, no tertiary institution in Namibia has offered training for veterinary para-professionals in the country. The Council has therefore relied on detailed curriculum requirements, drafted from various tertiary institutions and statutory bodies elsewhere in the world, but tailored to be relevant to Namibia, to evaluate the training of our applicants. The University of Namibia has now embarked on a programme to train both veterinarians and veterinary para-professionals in Namibia. The University is working closely with the Council in drafting curricula and practical requirements for both their BVM and Higher Diploma in Animal Health, and it is envisaged that when the first cohort of students graduate, the Council will have completed an audit of the institution, enabling the graduates to register immediately.

Without a dedicated committee of experts, appointed expressly to advise Council on education and training requirements for veterinary para-professionals, and to draft guidelines for auditing and accreditation of various courses, it would not be possible for Council to apply the conditions of registration with confidence.

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Training and the outcomes of PVS missions conducted in Africa

Patrick Bastiaensen

Programme Officer
Sub-Regional Representation for East Africa and the Horn of Africa
OIE
Nairobi, Kenya

Based on the outcomes of 30 country evaluations (and gap-analyses) of Veterinary Services in Africa conducted by the OIE as part of its *Performance of Veterinary Services* (PVS) pathway, and providing information on the technical skills of veterinary para-professionals, it may be concluded that VPP are generally better qualified for their jobs than veterinarians are for theirs, with less instances of inadequate skills, below-standard qualifications or general under-performance.

In 37% of countries, *“the training of veterinary para-professionals is of a variable standard and allows the development of only basic competencies”* (as defined in level of advancement 2 of the PVS Tool), whereas in 33% of countries *“the training of veterinary para-professionals is of a uniform standard that allows the development of only basic specific competencies”* (corresponding to the level 3, out of 5).

Only in 7% of countries, does *“the majority of veterinary para-professionals have no formal entry-level training”* (level 1).

In the remaining 23% of countries is *“the training of veterinary para-professionals (...) of a uniform standard that allows the development of some advanced competencies (e.g. meat inspection)”*, corresponding to a level of advancement 4 out of 5. The latter category countries are situated in west Africa (2) and southern Africa (5).

None of the countries in Africa attains the highest level 5, whereby *“the training of veterinary para-professionals is of a uniform standard and is subject to regular evaluation and/or updating”*.

Based on a survey conducted in 2013 by Bastiaensen *et al.* in view of the third OIE global Conference on Veterinary Education and the Rome of the Veterinary Statutory Bodies (Foz do Iguaço, Brazil, 2013) each country in Africa has –on average- 1.3 faculties or schools of veterinary medicine or sciences, offering university degrees in veterinary medicine and 4.2 institutes or schools providing sub-university / diploma training in animal health, such as veterinary nursing schools.

The training of meat inspectors in Botswana

Andrew Aganga

Principal
Meat Industry Training Institute
Botswana College of Agriculture
Lobatse, Botswana.

The meat industries of many African countries face a challenging future as a result of changing consumer attitudes on issues such as food safety, animal welfare and general health-related needs. Well qualified and adaptable veterinary para-professionals (meat inspectors), technical managers are needed to respond positively to problems and marketing opportunities. In meeting the needs of the African continent in manpower development for safe food, FAO established in Botswana an Institute named *FAO Regional Training Centre for Meat Inspectors and Meat Technologists in Africa*. Preliminary training started in October 1984 while full training operations started in 1985. FAO managed and organized courses until the end of the Agreement period and then handed the Institution over to the Botswana Government in September 1991. The Institution was renamed *Meat Inspection Training Centre* (MITC). Academic activities commenced in January 1996 after a break of 5 years. A Certificate in Meat Inspection is awarded to successful participants after a six-month (6) training.

Since its establishment in 1984, over 1,900 participants from 45 African countries have undergone training at the Institution. Facilities at MITC consist of two classrooms, three hostel blocks with total bed space of 40 (2 sharing), an administration block, staff offices, library, a laboratory, 2 bed-room guest house and an abattoir. The abattoir serves as a training facility with the ability to process 50 head of cattle, 50 sheep, 50 goats and 50 pigs per day. Furthermore, the modern abattoir of *Botswana Meat Commission* (BMC, an EU-approved export abattoir) is in the immediate neighbourhood and provides additional training facilities for the Institute.

Courses in the Certificate Programme: Parasitic diseases of food animals; Ante-mortem and post mortem inspection; Microbiology for meat inspectors; Pathology of food animals; Food safety; Sanitation of meat establishments; Anatomy and physiology of food animals; Food safety legislation; Epidemiology and zoonosis; Meat preservation; Poultry inspection; Abattoir by-products collection, processing and utilization;

Entry Requirements

Pre-requisite qualification and experience for the meat inspection programme are Certificate in Animal Health and Production with a minimum of 2 years working experience in the meat industry.

MITC Take-over by Botswana College of Agriculture.

On the 1st of April 2012, MITC was taken over by the *Botswana College of Agriculture* (BCA) through a Presidential Directive. The name of the Institution was amended to *Meat Industry Training Institute* (MITI). The goal of this take-over was to place the Institution under the umbrella of a Tertiary Academic establishment so that it can grow to meet the various training needs of the continent

While the Institute currently offers a Certificate in Meat Inspection, development of a Higher Diploma in Meat Inspection programme is at an advanced stage. It is planned to commence in August 2016. It will consist of a 3 year full time programme made up of 30 courses with a total of 99 credits excluding *Field Practical Training* (FPT).

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The training of veterinary para-professionals in Nigeria

Jacob German

National Secretary

Nigeria Association of Animal Health and Husbandry Technology (NAAHHT)

Ughelli, Nigeria

The origin of the training for animal health practice in Nigeria which dates back to 1914, when the first, formally organized institution for the training of animal health and productions' manpower was established in Zaria and in 1924 when a standard institution for veterinary training was established in Vom, Jos in addition to vaccine production, this was followed by various faculties of veterinary medicine in our respective universities for the higher training of veterinary officers level.

Nigeria, at the last count had cattle 13.8m, sheep 122m, goat 34.5m, chicken 150m, duck 11m, pigeon 15m, pigs 3.4m and camels 218,000 spread over her 923.768sq kilometers land mass. Thus, the country requires an appreciable member of personnel trained in their management. To achieve this, institutions were given the mandate to train technical and technological manpower in the area of animal health and production that would have knowledge and skill essential for livestock development projects and extension services to bring the results of agro-veterinary research and innovations to the livestock farmer and feed-back the farmers problems to the appropriate authorities for solutions. The training in animal health is diverse and is currently provided by 24 training institutions in Nigeria. They can be divided into four (4) categories, based on their establishment status: First generation (the colonial policies and training programme 1914 – 1950), second – generation institution (1947 – 1962), third – generation institution (1980 till date) and forth general institution (Bsc degree animal health & management university programme).

The training imparted by the veterinary school in Vow in the 1st and 2nd generation were of high profile as education system then were shaped by Nigerians' colonial past, which was shared by other African countries, notably the Cameroon, Liberia, Ghana, Serra-Leone, Gambia, Ethiopia and the Sudan. While in the 3rd generation South Africa followed. Certificate programmes in beef, poultry and swine production are offered in five (5 months) for attendants and assistants while diploma and degree courses last between 2-5 years leading to the equivalent of ordinary diploma (3 years), higher national diploma (5 years) and the Bsc degree in animal health and management in the university is 4 years.

Presently, the college in Vom offers in addition to the diploma courses, certificate courses. Although the concept of one medicine one health is gradually gaining popularity, but the gap in the quality of animal health graduates as delivered under the standard and accreditation of the NBTE is worrisome with the unhealthy dilution of their academic curriculum. This is a sensitive issue because animal health graduates may work not only locally or regionally but also internationally, either in the government or private sector. The importance of the animal health technologists' role and functions (including primary animal health care services, animal welfare, public health and animal health drugs and agro allied chemical handling) is such that must be address urgently, if their complementary role to the veterinarians must be achieved.

Finally, there is a need for assessment and revision to upgrade the para-animal health professionals' academic curriculum and services. This reform will promote and improve the animal health education in Nigeria and to ensure that the graduates acquire strong skills and complementary autonomy to begin their careers and help to enhance Nigerian's Animal Health Services with the objective to meet the best world standards.

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Becoming a Veterinary Para-Professional as a stepping stone to a veterinary undergraduate degree

Johan Oosthuizen

President

South African Association of Veterinary Para-Professionals (SAAVPP)

Lecturer

University of South Africa (UNISA)

Pretoria, South Africa

Registration with the South African Veterinary Council is compulsory for all VPP in South Africa.

Different VPP are recognised in South Africa namely: Veterinary Nurses, Veterinary Technologists, Animal Health Technicians, Animal Lab Technicians and Veterinary Welfare Assistants with at least 3 other possible groups being registered in the near future.

In South Africa it is also compulsory for all Veterinary Para-Professionals (VPP), for registration purposes, to comply with regard to the approved prescribed qualifications.

These qualifications are however not presented at a single University and as such a similar foundation phase or outcome does not exist. Currently the *University of South Africa* (UNISA) and the *Northwest University* (NWU) offer the approved Animal Health qualifications with the University of Pretoria (UP) offering the Diploma in Veterinary Nursing and *Tshwane University of Technology* (TUT) offers the 3 year Diploma in Veterinary Technology. Currently no institution in South Africa is offering a qualification in Lab Animal Technology for the Lab Animal Technicians. The new 1 year certificate for Veterinary Welfare Assistants will be introduced in 2017.

Most of the VPP qualifications were developed in collaboration with the specific VPP group and for their specific needs with some generic modules and or subject content between the different groups.

These generic modules include Anatomy and Physiology, Animal Diseases, Pharmacology, Laboratory Diagnostics etc., with different outcomes levels according to specific needs of the VPP group.

The ideal situation will be to have a common outcome with certain module being generic at first year level with specialization being introduced only as from 2nd year onwards.

This will pave the way for VPP to either articulate into the undergraduate veterinary degree and or being able to come back and enter the undergraduate veterinary degree at 2nd year level after completing a VPP qualification.

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VPP entering the undergraduate degree, after being exposed to the work field for a number of years, will definitely be more practical veterinarians after qualifying with the veterinary degree.

Further to the above, qualified VPP must be allowed the opportunity to get *Recognition for Prior Learning* (RPL) after a certain number of years if they were actively involved in the related work field. This entails that duly qualified VPP practising for at least 5 years be given RPL and admission to re-enter the veterinary degree at a 3rd year level.

If a pre-agreed method of articulation can be implemented within all African countries it will most definitely contribute towards the relief of the shortage of veterinarians on the continent.

Notwithstanding numerous efforts in the past within South Africa an agreement could not be reached in bringing together all the above qualifications at a single academic institution or having a generic outcomes level.

10. Building consensus

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The perspective of the *African Veterinary Association (AVA)*

Maria Antonieta J.S. Baptista, Khaled Hicheri & Faouzi Kechrid*

Vice-President
African Veterinary Association
Luanda, Angola

Africa is a continent characterized by large inequalities in resources and its coverage in terms of the numbers of Veterinarians could not be an exception. There exist African countries where this class abounds professionals and others with much less whether there is any related faculty in the country or if all the veterinarians are formed in other countries, which is not always a reliable indicator. Being of our knowledge that the cattle-breeding is the basis of food sustainability of many African countries struggling against hunger and poverty, and many of those countries have many rural areas, it becomes obvious that it is needed to evaluate the role of veterinarians in ensuring animal health, a form of food security for the humans. In the other side is the problem of the pets that here play several important roles that go from the security guarantee of the owners until the invaluable help in getting the hunting, as staple food. This situation leads us to a greater need for caring animal health which, given the shortage of veterinarians in many cases, is a serious problem that could be solved with the help of veterinary para-professionals, of course.

This situation raises a number of questions about the basic and continuing formation of those veterinary para-professionals that should be guaranteed as it becomes a solution and not a problem, which should be considered as a priority in training plans that benefit the continent as well as the adequacy of its framework.

The perspective of *World Animal Protection (WAP)*

Tennyson J. C. Williams

Regional Director for Africa
World Animal Protection
Nairobi, Kenya

World Animal Protection is aware of the challenges facing the African continent but also aware that animal welfare has huge potential in contributing towards food security, improved livelihoods, poverty reduction and sustainable development which resonates very well with Africa's development agenda. For many years, *World Animal Protection* has been advocating for governments to recognize the benefits of good Animal Welfare to human welfare. The need to demonstrate these linkages in achieving Africa's Development Agenda is becoming increasingly important. Animals have always had a profound impact on human lives! Despite this potential that good animal welfare brings to Africa's development, we are also aware that Africa is lagging behind in accessibility to quality veterinary services that is key to sustainable development of the livestock sector. There are countries that are without adequate veterinary surgeons which, brings to the fore the importance of veterinary paraprofessionals in Africa.

The *World Organisation for Animal Health (OIE)* defines *Veterinary Service (VS)* of a country as the governmental and non-governmental organisations that implement animal health and welfare measures and other standards and guidelines in the Terrestrial Code in the country. The OIE has also defined a veterinary para-professional as a person who is authorized to carry out certain veterinary tasks with authorization from a Veterinary Statutory Body, under the responsibility and direction of a registered or licensed Veterinarian (*The role of para-veterinarians in the delivery of veterinary services in Africa - www.oie.int/doc/ged/D2956.PDF*).

World Animal Protection believes in a world where animals live free from suffering. It fully recognises, appreciates and support the importance of Veterinary Para-Professionals in animal health care provision. We embarked on a journey ten (10) years ago to empower undergraduate Veterinarians and Para-professionals with knowledge and skills to deliver quality animal welfare advice. This has resulted in increased propagation, uptake and institutionalization of animal welfare courses in seven (7) Faculties of Veterinary Medicine and eighteen (18) Livestock Training Institutions drawn from Kenya, Uganda, Tanzania, Namibia, Sierra Leone and Zambia. Graduates from these institutions are expected to play a catalytic role for change during provision of extension services. We have also in collaboration with the University of Nairobi, jointly supporting the running of a *Veterinary Emergency Response Unit (VERU)* with the aim of developing adequate and available capacity to respond to the needs of animals in disasters - drought, flooding or epidemic etc.

Our support for Veterinary Para-Professionals is also based on the recognition that capacity building and streamlining of responsibilities including supervision should be carefully defined to enhance efficiency and to minimize risks.

We therefore, call upon all governments and the OIE to support and promote capacity building of Veterinary Para-Professionals across Africa; governments to put in place effective systems and mechanisms for monitoring service delivery by Veterinary Para-Professionals and the OIE to continue providing relevant guidelines and standards that will enhance the performance of all veterinary professionals leading to overall improved productivity of the livestock sector in Africa.

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The perspective of the *Food and Agriculture Organization (FAO)*

Bouna A. Diop

Regional Manager
ECTAD Eastern Africa
FAO
Nairobi, Kenya

The perspective of the *African Union* (AU)

Ahmed Elsayalhy

Director
Inter-african Bureau for Animal Resources
AU
Nairobi, Kenya

The perspective of the *World Organisation for Animal Health*

Monique Eloit

Deputy Director General
OIE
Paris, France

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