28th World Veterinary Congress

Proceedings of the Seminar
‘Challenges in Responding to New International and Societal Demands on the Veterinary Profession’

Organised by the OIE in collaboration with WVA and FAO

Minneapolis, 17 July 2005
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The 28th World Veterinary Congress took place in Minneapolis (USA), from 16 to 20 July 2005 and was held in conjunction with the American Veterinary Medical Association’s (AVMA) Annual Convention.

Nearly 9,000 participants attended the congress which brought together world renowned experts in animal diseases including those transmissible to humans, and in animal welfare. It was a unique opportunity to exchange state-of-the-art veterinary knowledge and information at a global level.

It has been an honour for the World Organisation for Animal Health (OIE) and for me to participate in this major event.

In particular, I would like to thank the World Veterinary Association and its Past President Dr Herbert Schneider for recognising the OIE as the sole intergovernmental organisation in the world dealing entirely with all the concerns shared by the veterinary profession.

Over the past few years the OIE has become increasingly aware that the needs of society are coming more and more into step with the main objectives and missions of the veterinary profession:

– First, to maintain the world’s animals in good health and to protect wildlife, a crucial part of the earth’s rich heritage. Maintaining animal health by prevention and treatment of diseases is the ideal way of ensuring an essential component of animal welfare and preventing transmission of zoonoses to humans, including the potential threat of new pandemics.

– Second, to ensure safe food for consumers. We at the OIE are still convinced that food of animal origin is a source of wealth for humanity and the veterinary profession is committed to facilitating the provision of an abundant and safe supply of meat and milk for the people of every country of the world.

Of course, the traditional missions of the OIE, namely the transparency of the animal health situation in the world and the publication of World Trade Organization recognised standards on the best animal disease control methods and on protecting the world trade of animals and animal products from the spread of pathogens, remain an essential part of our activities.

Clearly, the OIE’s objectives are now very close to all the missions and objectives of the veterinary profession.

All the veterinarians in our 167 Member Countries have the opportunity to consult with their OIE Representative (or Delegate) before he or she expresses the country’s official position to our Organisation prior to the adoption of new international standards.

It is important for the OIE to know that the policies recommended by Government representatives have previously been discussed with the private sector component of the veterinary profession, because veterinarians in private practice and other private sector veterinarians are in the front line when it comes to implementing the OIE’s new objectives and helping to comply with the new demands of society.

Also, we are facing a major new challenge that will need to be addressed with the help of Governments, the veterinary education community and veterinary organisations: if current trends continue, it may not be possible to meet all of society’s demands on the profession in the future.

For example, the majority of young veterinarians now choose to work in an urban environment, a trend that is inevitably leading to a scarcity of veterinarians in rural areas. This worldwide phenomenon has to be
addressed as a priority if we are to continue to ensure early detection and response to animal diseases, including zoonoses, as well as the health protection and surveillance of wildlife. There is also a need for greater involvement of the veterinary profession in food safety inspection, research and administration.

The solutions exist but a firm commitment from Governments, veterinary schools and the veterinary profession is urgently required.

All these issues were addressed during the Seminar about the new demand of the society for the veterinary profession that the OIE organised during the Congress. It brought together high level representatives of the Food and Agriculture Organization of the United Nations (FAO), the Delegates of OIE Member Countries, public and private veterinarians, scientists, risk managers, industry and NGOs representatives.

The importance of the veterinary profession is increasingly recognised by policy makers and the general public but there are many challenges still to be met, including how to improve communication and raise public awareness of the nobility of our missions.

I wish to thank here all the speakers that participated in the OIE Seminar for their excellent presentations. It is my pleasure to present their contributions in this publication that represents a further information tool of the values of the veterinary profession.

Dr Bernard Vallat
Director General
World Organisation for Animal Health (OIE)

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CHALLENGES IN RESPONDING TO NEW INTERNATIONAL AND SOCIETAL DEMANDS ON THE VETERINARY PROFESSION

SEMINAR PROGRAMME

8:30  Opening remarks by Dr Bernard Vallat

New demands on the profession: Dr Herbert Schneider, moderator

8:45-9:30  ‘Recent advances on animal welfare and the role of the public and private veterinarian’ by Dr David Wilson

9:30-10:00  Break

10:00-10:45  ‘Responding to consumer demands for safe food, a major role for veterinarians in the 21st Century’ by Dr Véronique Bellemain

10:45-11:30  ‘Financial constraints, how they affect the services provided by the public and Veterinary Services, strategies for the future’ by Dr Luis Barcos

11:30-13:00  Lunch

13:00-13:45  ‘New tools for the training of veterinarians and improvement of Veterinary Services’ by Dr Lonnie King

How to address the demands on the profession: Dr Brian Evans, moderator

13:45-14:30  ‘A practical tool for the evaluation of Veterinary Services: first results of its application in Latin America’ by Dr Kevin Walker

14:30-15:00  Break

15:00-15:45  ‘New competencies required for veterinarians, with a focus on international careers’ by Dr Joseph Domenech

15:45-16:30  ‘Private-public sector links, including official Veterinary Services, private practitioners, para-professionals and producers’ by Dr Herbert Schneider

16:30-17:00  Round Table discussions (Drs Bernard Vallat, Joseph Domenech, Lonnie King, Brian Evans, Alex Thiermann, Herbert Schneider and David Wilson)
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<tr>
<td>AIDS</td>
<td>acquired immune deficiency syndrome</td>
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<td>ALive</td>
<td>African Livestock</td>
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<td>AVMA</td>
<td>American Veterinary Medical Association</td>
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<td>BSE</td>
<td>bovine spongiform encephalopathy</td>
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<td>CAC</td>
<td>Codex Alimentarius Commission</td>
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<td>CIWF</td>
<td>Compassion in World Farming</td>
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<td>ECOSOC</td>
<td>United Nations Economic and Social Council</td>
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<td>ENSV</td>
<td>École Nationale des Services Vétérinaires</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FMD</td>
<td>foot and mouth disease</td>
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<td>FVE</td>
<td>Federation of Veterinarians of Europe</td>
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<td>GF-TADs</td>
<td>Global Framework for the Progressive Control of Transboundary Animal Diseases</td>
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<td>HACCP</td>
<td>Hazard Analysis Critical Control Point</td>
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<td>HIV</td>
<td>human immunodeficiency virus</td>
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<td>IAEA</td>
<td>International Atomic Energy Agency</td>
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<td>IICA</td>
<td>Inter-American Institute for Cooperation on Agriculture</td>
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<td>NGO</td>
<td>non-governmental organisation</td>
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<td>World Organisation for Animal Health</td>
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<td>Pan American Health Organization</td>
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<td>Public Private Partnerships</td>
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<td>PVS</td>
<td>Performance, Vision and Strategy</td>
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<td>SPS Agreement</td>
<td>Agreement on the Application of Sanitary and Phytosanitary Measures</td>
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<td>STDF</td>
<td>Standard and Trade Development Facility</td>
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<td>TADs</td>
<td>Transboundary Animal Diseases</td>
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<td>UK</td>
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<td>United Nations Environment Programme</td>
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<td>USA</td>
<td>United States of America</td>
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<td>VICH</td>
<td>International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicine Products</td>
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<td>VUCA</td>
<td>Volatility, Uncertainty, Complexity, and Ambiguity</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WSPA</td>
<td>World Society for the Protection of Animals</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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INTRODUCTION

The veterinary profession is dedicated to animal welfare. In many countries, upon graduation, veterinarians make a specific declaration in this regard and, as professionals, they embrace a code of ethical behaviour that emphasises this commitment. Over the past one hundred years, there have been significant changes in society which have placed increased demands on animal production and, at the same time, increased expectations that the welfare of animals will be appropriately addressed (1). Unfortunately, this is not always the case.

In addition, globalisation is revolutionising international trade in live animals and animal products, and animal welfare needs to be seen in a global context and new approaches to animal welfare adopted.

This paper discusses animal welfare as a global issue, and the essential roles of the OIE and of the public and private veterinarian in animal welfare.

What is animal welfare? Two useful definitions are those of Profs A.F. Fraser and D.M. Broom (2): ‘Welfare defines the state of an animal as regards its attempts to cope with its environment’ and Profs I.J.H. Duncan and D. Fraser (3): ‘animal welfare comprises the state of the animal’s body and mind, and the extent to which its nature (genetic traits manifest in breed and temperament) is satisfied’.

THE WORLD ORGANISATION FOR ANIMAL HEALTH (OIE)

The OIE was formed in 1924 to address the concerns of the Chief Veterinary Officers of 28 European and other countries that a coordinated effort was required to address the increasing number of animal disease outbreaks resulting from the international movement of live animals and animal products. The OIE’s present mandates expand on those original concerns:

- transparency: to ensure transparency in the global animal disease and zoonosis situation
- scientific information: to collect, analyse and disseminate scientific veterinary information
- international coordination: to provide expertise and encourage international coordination in the control of animal diseases
- international standards: within its mandate under the WTO SPS Agreement, to safeguard world trade by publishing health standards for international trade in animals and animal products
- promotion of Veterinary Services: to improve the legal framework and resources of national Veterinary Services
- new mandates for animal production food safety and animal welfare: to provide a better guarantee of the safety of food of animal origin, and to promote animal welfare through a science-based approach.
THE OIE’S INTERNATIONAL STANDARDS

In 1995, the OIE became one of the three organisations referenced in the WTO SPS Agreement for the development of international standards. In the case of the OIE, these cover animal health and zoonoses. This reference means that Members of the WTO are obliged to take into account the OIE’s animal health standards in setting their import regulations for live animals and animal products. They may set a higher level of protection than that provided by the standard but such protective measures must be based on the outcomes of a scientific assessment of the risks.

The four publications containing the OIE standards are:

- The Terrestrial Animal Health Code
- The Aquatic Animal Health Code
- The Manual of Diagnostic Tests and Vaccines for Terrestrial Animals

These may be accessed under ‘Health Standards’ on the OIE’s Website at: http://www.oie.int.

The aim of the two OIE trade standards, the Terrestrial Animal Health Code and Aquatic Animal Health Code, is to assure the safety of international trade in terrestrial and aquatic animals, and their products. This is achieved through the detailing of health measures for the diseases listed by the OIE to be used by the veterinary authorities or other competent authorities of importing and exporting countries to establish health regulations for the safe importation of animals and animal products. Thus they aim to avoid the transfer of agents pathogenic for animals or humans without the imposition of unjustified trade restrictions.

THE WORLD ORGANISATION FOR ANIMAL HEALTH ANIMAL WELFARE INITIATIVE

History

Animal welfare has emerged as a significant international public policy issue over the past thirty to forty years. The role of animal welfare in international trade has also led to considerable debate, in political and trade policy circles, with regard to its possible position vis-à-vis the rights and obligations of countries under the WTO Agreements (4).

Historically, there has been no single international organisation with a standard-setting role or the responsibility for providing expert advice on animal welfare on a global basis, although various organisations and agencies have particular interests in the subject. By the late 1990s, it became clear to OIE Member Countries that the essential link between animal health and animal welfare dictated that the OIE become the international reference organisation in the field of animal welfare – to address animal welfare issues, and to develop and publish international standards for animal welfare.

At the same time, the OIE was being requested by some NGOs to intervene urgently in some cross-border animal welfare issues (such as the international trade in live animals for slaughter) which were unable to be addressed by national or sectoral organisations.

In recognition of the increasing scientific, political and public attention being given to animal welfare, the topic was identified as one of the important emerging issues during the preparation of the 2001-2005 OIE
Third Strategic Plan. At the 69th session of the OIE International Committee in 2001, approval was given to implement the recommendations of the Strategic Plan, and to commission scoping documents to assist in defining the degree and scope of OIE involvement with these new mandates, including animal welfare. It was recognised, from the outset, that involvement in animal welfare would present the OIE with some unique and demanding challenges and, particularly, the challenge of approaching animal welfare on a global basis, rather than from a narrower sectoral or regional perspective.

To manage the OIE’s work on animal welfare, a permanent Working Group was established with broad membership; the Working Group met for the first time in October 2002 and drafted a mission statement and guiding principles which would underpin future guidelines and standards. It also reviewed the scope, drafted terms of reference and identified potential members for the expert groups to address the four initial priority areas.

Issues

The Working Group decided that the OIE’s initial priorities should be issues relating to the use of animals in agriculture and aquaculture, with animal transportation, the humane slaughter of animals for human consumption and the killing of animals for disease control purposes to be addressed first. These would be followed by guidelines on housing and management.

The following issues presenting particular challenges for the OIE were identified:

- the need for science-based standards relevant to all OIE Member Countries
- the need to take into account regional, religious and cultural issues
- the need to better coordinate animal welfare research internationally
- the need to promote the teaching of animal welfare and ethics at both undergraduate and postgraduate levels as part of ongoing continuing professional development programmes
- the need to actively involve all OIE Member Countries in the implementation of the initiative
- the need to ensure that effective communication and consultation with stakeholders (both industry and NGOs) take place at Member Country level
- the need to harness resources (including non-veterinary resources) and utilise information already available internationally
- the need to develop a communications plan addressing both internal and external audiences
- the need to identify emerging issues (including animal biotechnology and aquatic animal welfare).

The Working Group also recommended that the OIE continue to work with the International Air Transport Association and the Animal Transport Association on air transport issues.

World Organisation for Animal Health mission and guiding principles for animal welfare

The OIE’s animal welfare mission is to provide international leadership in animal welfare through the development of science-based standards and guidelines, the provision of expert advice and the promotion of relevant education and research.
The following guiding principles for animal welfare have been adopted by OIE Member Countries as the basis for detailed guidelines and standards:

- that there is a critical relationship between animal health and animal welfare
- that the internationally recognised ‘five freedoms’ (freedom from hunger, thirst and malnutrition; freedom from fear and distress; freedom from physical and thermal discomfort; freedom from pain, injury and disease; and freedom to express normal patterns of behaviour) provide valuable guidance in animal welfare
- that the internationally recognised ‘three Rs’ (reduction in numbers of animals, refinement of experimental methods and replacement of animals with non-animal techniques) provide valuable guidance for the use of animals in science
- that the scientific assessment of animal welfare involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value-based assumptions which should be made as explicit as possible
- that the use of animals in agriculture and science, and for companionship, recreation and entertainment, makes a major contribution to the wellbeing of people
- that the use of animals carries with it an ethical responsibility to ensure the welfare of such animals to the greatest extent practicable
- that improvements in farm animal welfare can often improve productivity and food safety, and hence lead to economic benefits
- that equivalent outcomes (performance criteria), rather than identical systems (design criteria), be the basis for comparison of animal welfare standards and guidelines.

The following scientific bases for the guidelines and standards were also adopted:

- welfare is a broad term which includes the many elements that contribute to an animal's quality of life, including those referred to in the ‘five freedoms’ listed above
- the scientific assessment of animal welfare has progressed rapidly in recent years and forms the basis of these guidelines
- some measures of animal welfare involve assessing the degree of impaired functioning associated with injury, disease, and malnutrition. Other measures provide information on animals’ needs and affective states such as hunger, pain and fear, often by measuring the strength of animals’ preferences, motivations and aversions. Others assess the physiological, behavioural and immunological changes or effects that animals show in response to various challenges
- such measures can lead to criteria and indicators that help to evaluate how different methods of managing animals influence their welfare.

**Working with stakeholders**

The provision of international leadership in animal welfare policy and standards is likely to be an important role for the OIE in the years ahead. However, the OIE cannot work alone and needs to build strong relationships with stakeholders.

International scientific and professional organisations such as the WVA, the FVE and the International Society for Applied Ethology have confirmed their interest in working closely with the OIE. International
industry organisations, such as the International Federation of Animal Producers, the International Dairy Federation and the International Meat Secretariat, are already closely involved in this work. Animal welfare advocacy organisations, such as the International Coalition for Farm Animal Welfare which includes the WSPA and CIWF, and the Universities Federation for Animal Welfare are also involved.

Other organisations such as the FAO and the World Bank have now included animal welfare in their programmes.

The OIE has also discussed its animal welfare initiative with various international companies and commercial organisations as they are addressing consumer perceptions in their purchasing and marketing activities, and it is desirable that these activities be coordinated.


To gather stakeholders together and enhance their awareness and understanding of the OIE’s animal welfare initiative, and to seek their input and support, the OIE held an animal welfare conference in early 2004. It was attended by over 240 delegates and many later stated that the conference was very helpful to them seeing animal welfare as a global issue.

The following issues received particular emphasis and support from conference delegates:

- the importance of science-based standards
- the importance of incremental change and a commitment to continuous improvement
- the importance of the competent animal handler in achieving animal welfare objectives
- the need to clarify the place of animal welfare within the various WTO agreements, in relation to animal welfare and international trade
- the successful track record of the OIE expert group model in drafting guidelines and standards for Member Country comment
- the preferred approach of outcome-based standards, as opposed to prescriptive standards.


**The new World Organisation for Animal Health standards**

At its 73rd General Session in May 2005, the International Committee of OIE Member Countries adopted four new animal welfare standards to be included in the *Terrestrial Animal Health Code*. These are:

- the transport of animals by land and sea
- the humane slaughter of animals for human consumption
- the killing of animals for disease control purposes.

These are available on the OIE website at: [http://www.oie.int/eng/normes/mcode/en_sommaire.htm](http://www.oie.int/eng/normes/mcode/en_sommaire.htm).

These standards may be applied by official veterinarians as suitable guidelines for international trade in live animals and their products, as suitable guidelines for the movement of live animals within a country, for the
slaughter of animals for meat, and for the organisation of domestic disease control programmes; and by private veterinarians as suitable guidelines for industry.

**SOME OTHER CURRENT ISSUES IN ANIMAL WELFARE**

**Animal welfare law**

To date, at least 38 United States law schools are teaching courses on animal law, while more and more non-profit organisations dedicated to the study of animal law are emerging. Australia has a Master’s course in animal law, and Canada has two animal law courses. There are likely to be others.

Last November Yale Law School hosted a conference on ‘The Future of Animal Law’, exploring how US law is evolving to reflect Americans’ changing attitudes towards animals. Animal law can be defined as the body of statutory and case law related to non-human animals. Among the subjects covered was that of ‘non-economic damages’ (ie pain and suffering) for killed or injured companion animals, apparently relating in part to proposals to change the legal status of animals from ‘property’ to ‘legal persons’. The AVMA has issued a note on its Website to advise that, while the AVMA recognises the role of responsible owners in providing for their animals’ care, it believes that any change in terminology describing the relationship between animals and owners, including ‘guardian’, does not strengthen this relationship and may, in fact, harm it.

Dr K.L. Easton (5) notes that, in the USA and Canada, court settlements for costs have increased beyond the ‘monetary value’ of the animal to include pain and suffering by both the animal and the caregiver. He expects that lawyers will turn to the veterinarian as the obvious leader in animal welfare and he encourages veterinarians not to fail to take this opportunity to take a leadership role.

**The European Union Welfare Quality project**

The considerable importance of animal welfare to European consumers is indicated by ‘Welfare Quality’, a large EU-funded project on the integration of animal welfare into the food chain for improved food quality. Europeans determine food quality not only by the overall nature and safety of the end product, but also by their perceptions of the welfare status of the animals from which the food is derived. This project aims to accommodate societal concerns and market demands, to develop reliable on-farm monitoring systems, product information systems, and practical species-specific strategies to improve animal welfare. The project will take five years to complete and is being co-ordinated by Dr H. Blokhuis of the Animal Sciences Group, Wageningen University and Research Centre in the Netherlands.


Since 2000, WSPA has been championing a Universal Declaration for the Welfare of Animals.

The fundamental objective of such a Declaration is to ensure that, at the global inter-governmental level, animal welfare is accepted as an issue of common concern and importance. In order to make progress within the United Nations, the Declaration needs to be adopted by a group of countries that could initiate discussions at the ECOSOC. If ECOSOC approves the Declaration, it would then go forward for adoption in the UN General Assembly. At present, WSPA is drawing together a group of countries to provide leadership in moving this issue forward.
Such a Declaration would help to make animal welfare an issue of global importance and should strengthen every aspect of the work of animal welfare organisations, ensuring that their aims are given greater attention by the public and private sectors. A Universal Declaration for the Welfare of Animals would not provide for any powers to enforce changes at the national level, or sanction countries that did not conform to its principles. However, it would lay the foundations for a Convention on Animal Welfare, which could assess problems in detail and pass legally binding resolutions in a similar manner to the Convention on Trade in Endangered Species.

**International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicine Products**

The issue of international harmonisation of the use of animals in regulatory testing is now being addressed by the VICH programme. The VICH is an international forum with the object of providing guidance on technical requirements for the registration of new veterinary medicinal products in order to protect public health and animal health and welfare, as well as the environment. The VICH is a collaboration primarily between the regulatory authorities and the animal health industries of the EU, Japan and the USA. Australia, New Zealand and Canada participate as active observer members, while the OIE participates as an associate member in supporting and disseminating outcomes worldwide.

The VICH was established in 1996 with a mandate to reduce the number of animals used in regulatory testing by eliminating the need for duplication of tests in each VICH region, and to enhance the international harmonisation of regulatory standards thereby minimising their unnecessary impact on trade.

**Animal sentience**

A concept which is gaining more ground is that of ‘animal sentience’. If an animal is ‘sentient’, it is capable of being aware of its surroundings, of sensations in its own body (including pain, hunger, heat or cold) and of emotions related to its sensations. It is aware of what is happening to it and its relations with other animals, including humans. Sentience does not necessarily mean that animals have complex abilities to understand, to learn, to solve problems or to be ‘intelligent’. One strong indicator of animals’ sentience is their ability to distinguish and choose between different objects, animals and situations. Another strong indicator of sentience is an animal’s ability to learn from experience, to use its experience to cope with the world more effectively (from its point of view) and to respond flexibly to new situations that confront it. A recent CIWF conference on animal sentience addressed some of these issues (6).

Advocates believe that there are alternatives to the currently used farming systems (especially intensive systems) which address in a better way the sentience of farm animals. Veterinarians should be playing a major role in using the available information to explain the advantages and disadvantages, from an animal welfare viewpoint, of the various animal production systems.

In 1997 the concept of animal sentience was written into EU law. The protocol annexed to the Treaty of Amsterdam recognises that animals are ‘sentient beings’, and requires the EU and its Member States to ‘pay full regard to the welfare requirements of animals’.

**Activities of commercial processors and retailers**

In parallel with the policy debate on animal welfare and international trade, important initiatives have been taken by various producers and retailers in some European countries, Australia, New Zealand, the USA and Canada.
Retailers are becoming a potent force in setting animal welfare standards and influencing animal welfare change. In their desire to address consumer perceptions and perhaps also to gain an advantage over their competitors, retailers are able to move faster than governments and international organisations, and can set and implement corporate codes of compliance through commercial contracts with suppliers. They can ignore international trade agreements, for example while a country has to adhere to its WTO obligations and cannot ban imports based on objections to the methods used in their production, retailers are free to make their own decisions.

Such retailer influence, which commenced in Europe, has been followed in the USA by McDonald’s, Burger King, Wendy’s and Wal-Mart, following qualitative surveys of consumer preferences by the Food Market Institute.

In Australia, People for the Ethical Treatment of Animals has exerted commercial pressure on the Australian wool industry to phase out a painful procedure carried out on sheep, by convincing some wool processors in other countries not to buy Australian wool. The effect has been immediate in stimulating research into painless alternatives to ‘mulesing’.

How can veterinarians influence this new approach to animal welfare to ensure science-based outcomes?

Interest from financial institutions

This trend of industry-led standards may also be seen in the international banking sector, where 31 major financial institutions have adopted the Equator Principles, in line with an increasing focus on self-regulation. This is an international approach by financial institutions to assessing and managing environmental and societal risks in project financing, to promote responsible environmental stewardship, sustainable development and socially responsible approaches. Animal welfare falls under the last of these headings.

The Equator Principles use a screening process to classify projects into Category A, B or C (high, medium or low environmental or social risk). Category A and B projects require an environmental assessment, addressing issues such as sustainable development, socio-economic impact, land acquisition, involuntary resettlement and pollution prevention. Where appropriate, an environmental management plan for mitigating environmental and social risks may also be required.

ANIMAL WELFARE IN VETERINARY EDUCATION

In order for veterinarians to hold informed positions on animal welfare issues, appropriate to their profession, it is essential that animal welfare be taught in the undergraduate curriculum.

There has been a significant increase in interest in animal welfare at university undergraduate and postgraduate level, and the establishment of animal welfare chairs in universities around the world over the past few decades. Fifteen full time University Chairs in animal welfare have now been established around the world, including in the UK, Sweden, Denmark, Switzerland, the Netherlands, New Zealand, Australia, Canada and the USA. Many other professors teach animal welfare as a major part of their work. This specialised teaching provides opportunities to undergraduate and newly graduated veterinarians to become spokespersons in the animal welfare debate and to provide science-based arguments in public fora.

The WSPA is offering its ‘Concepts in animal welfare’ syllabus, developed by a team from the veterinary school of Bristol University in the UK and designed to assist the teaching of animal welfare in veterinary
schools, especially in developing countries. The syllabus has the following key objectives for veterinary students:

- to develop an understanding of animal welfare relevant to an animal’s physiological and psychological well-being
- to recognise welfare, ethical and legal implications, and to be able to apply critical analysis from each perspective, for different species in different situations
- to stimulate focused critical thinking on welfare issues, which can be developed throughout the course and throughout the individual’s professional career.

Further information may be found at: http://www.wspa-international.org/site/index.php?page=924

A LEADING ROLE FOR VETERINARIANS

The move to more consultative and transparent government has provided the opportunity for advocacy groups to have their voices heard and they are taking advantage of this. Many of their arguments do not use science, but rely on emotion and consumer and public perceptions of what animals need. This is exacerbated by the rapid urbanisation of the human population which has created a consumer much further removed from food animal production than previous generations have been, even in countries with well developed livestock industries. Their primary source of information appears to be television and films. This creates a major challenge to communicate the ethical basis for the use of animals in agriculture and in research, and the stringent regulations and the high standards of care which apply.

Professor C. Hewson, one of the 15 full-time professors of animal welfare (Sir J. Dunn Animal Welfare Centre, University of Prince Edward Island, Canada) has written a series of articles in the Canadian Veterinary Journal on the leadership role of veterinarians in animal welfare. Professor Hewson lists the challenges for the profession in speaking publicly on animal welfare (7) and suggests that, while lobbying may not be part of the profession’s mandate, the issuing of clear public statements on controversial issues would be a reasonable expectation. Her underlying assumptions are that animal welfare is a public good and that veterinarians have a responsibility to lead in questions of animal use.

In addition to being able to argue the issues from a scientific viewpoint, leaders of the profession need to be fully conversant with the policy formulation process operating within governments and intergovernmental organisations. A solid policy position based on carefully thought out and articulated science, ethics and values, should lead to a science-based discussion credible to politicians, policy makers and consumers, and with supportable outcomes sustainable in the medium to long term.

CONCLUSION

As Dr D. Bayvel noted at the OIE Global Conference on Animal Welfare (8), progress in the area of animal welfare will, of necessity, be a case of ‘evolution not revolution’ based on the principle of incremental change management. It is vitally important that all such changes be science-based and validated, be implemented over realistic time frames and take account of the economic and cultural factors operating in countries around the world.

The OIE has made encouraging progress to date but it needs to maintain this momentum through harnessing the support of all OIE Member Countries and stakeholders. It is essential that veterinarians play a leading role in the development of the OIE global standards and in the other important animal welfare issues currently under discussion.
References


RESPONDING TO CONSUMER DEMANDS FOR SAFE FOOD: A MAJOR ROLE FOR VETERINARIANS IN THE 21ST CENTURY

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Summary

The control of food safety has undergone profound changes and is now seen in terms of a global approach, ‘from the stable to the table’. The risks themselves have evolved, notably due to changing practices, and this, coupled with increased knowledge and changes in consumer demands, has led to a more global conception of production chains.

Targeted control of the final product has gradually been replaced by control of production processes and an integrated approach to hazards throughout the production chain, with a new distribution of responsibilities between the producers and manufacturers and the administration.

The areas in which veterinarians are involved have gradually extended from animal production to all levels of the food production chain. Sanitary intervention procedures in farms are comparable to those in agri-food companies. Both are included in the training of veterinarians.

The OIE and the CAC are the competent standard-setting bodies in this field.

To meet the new challenges in terms of public action, the current trend is for the Veterinary Services to be responsible for, or coordinate, sanitary interventions ‘from the stable to the table’.

INTRODUCTION

For a variety of reasons, food safety is becoming an increasingly important issue worldwide, with consumer expectations playing a leading role. There have been profound changes in the context of action of the control services, related to the increase in international relations and trade. The professional activity of veterinarians must keep up with these changes and indeed has done so.

The trend in food safety is increasingly to consider risks and their management throughout the entire chain of production and distribution, ‘from the stable to the table’, in other words from primary production (including animal feed, veterinary medicinal products and phytosanitary products) to the final consumer.

The Veterinary Services play a key role in the prevention and management of foodborne zoonotic hazards, even when animals do not present clinical signs. In many countries, in parallel with this primary position of the Veterinary Services, private veterinarians have diversified their professional activity by taking up positions at various links in the chain of prevention.
This article reviews the development of foodborne hazards, the tools and players involved in their control, the special position of veterinarians in the system of hazard control and the importance of international standards.

**CHANGES IN RISKS, PRODUCTION CHAINS AND CONSUMER EXPECTATIONS**

**Changes in knowledge and perceptions**

Perceptions of the extent and prevalence of food safety hazards are constantly changing: some hazards that used to be major concerns have declined (through control or changing contexts) while other are emerging or increasing. Advances in knowledge and better analytical tests have helped to identify hazards that were previously unknown or not clearly recognised as such.

The identification of zoonotic hazards in animals that are themselves in good health has led to a change in the very notion of zoonosis (such hazards include microbial agents: *Salmonella enteritidis*, *Campylobacter jejuni*, enterotoxigenic *Escherichia coli*, *Clostridium perfringens*, *Yersinia enterocolitica* and *Listeria monocytogenes*; and parasitic diseases: trichinellosis, cysticercosis and hydatidosis) (5).

Requirements for the control of physico-chemical contaminants have grown, due to a variety of factors: xenobiotics (veterinary drugs, growth promoters), environmental pollution (phytosanitary products, heavy metals, dioxin, marine biotoxins, etc.), improved detection methods, and a better understanding of their impact on consumer health. Yet, only prevention in the early stages of the production chain can stop contamination of foodstuffs.

Changes in farm practices, processing and storage of foodstuffs, food preservation methods and consumer habits have increased the interactions between the various segments in the production chain.

The cycle of contamination between animals, animal feed, the environment, and humans is increasingly well understood, both for pathogens and for physico-chemical contaminants. As a result, the need for integrated hazard control throughout the production chain has gradually come to be recognised by scientists and risk managers.

The BSE crisis and the media coverage it received undoubtedly accelerated an awareness of these problems.

Some sanitary measures are specific to a given contaminant (action taken at the source of contamination) or pathogen (e.g. withdrawal of specified risk material in the case of BSE). Conversely, for many germs, control is achieved mainly through general hygiene measures. A global sanitary approach, in a firm or in a production chain, can thus prevent multiple hazards, identified or otherwise.

**Changes in the organisation of ‘production-to-consumption’**

Traditional production systems, distributing their products on a local or regional scale, have evolved, as a result of the economic changes that took place during the latter half of the 20th Century, to become complex systems. We now distinguish between the stages of production, processing, distribution and consumption. Each of these has undergone profound changes:

- animal production chains have gradually become longer and more complex (fragmentation into separate but interdependent levels of processing)
marketing has seen the advent of mass marketing, with its centralised buying offices, which represent a new economic force and a powerful concentrating and amplifying factor in the distribution of standardised products

consumer habits have changed, due to the increase in international trade, giving consumers access to food products from all over the world

there have also been changes in consumer lifestyle (exponential increase in eating food prepared outside the home)

the structure of the population has changed, with an increase in the number of medically vulnerable people (increased life expectancy, development of specialised facilities for these groups).

These changes have had the following consequences:

- a ‘massification’ of production, processing and distribution systems, the increasingly large units having a concentrating effect
- a massification of consumption, through the grouping together of a large number of consumers all using the same distribution unit or structure; whereas in the past tens or hundreds of people could be affected by a food security problem, millions of people could now be affected
- a ‘globalisation’ effect, where the repercussions of an incident in a production system at a given point may be felt at points that are far away.

Media coverage, which has also increased exponentially, greatly amplifies the impact of events, influencing consumer perceptions and expectations in the face of events that are now more easily detectable due to massification and that could concern everybody. The media are a central factor and greatly influence policy makers and risk managers, both in the private sector and in the public administration.

Changes in approaches to risk management

In broad terms, sanitary questions used to be dealt with in a relatively independent manner for each phase of production.

In the interests of food self-sufficiency the accent was placed on the earlier stages of the production chains, namely on animal health.

Foodstuffs were only checked during the primary processing phase, notably through post-mortem inspection at the abattoir.

Food controls then developed chiefly based on examining samples of the end product. Products that were found to be of inadequate quality during these inspections were withdrawn from the market.

The use of laboratory analysis enabled contaminants to be detected that were invisible to the naked eye, though with limitations inherent in the methods used, the cost, the representativeness of the sample and the delay.

Trying to meet the requirements arising from the massification and globalisation of production and consumption (see above) with this traditional approach would have meant multiplying the number of controls and analyses, at a cost out of all proportion to the value of the products. In the absence of any link between the defective product and its history, other products potentially involved could not be recalled, nor could a recurrence of the problem in subsequent batches be prevented. Such an approach offered no scope for action against undetectable contamination.
Furthermore, due to the increase in the overall sanitary quality of production systems, the frequency of the defects being looked for is increasingly small. As a result, the proportion of results that are false positive (i.e. unfavourable) becomes far too high (statistically, the predictive value of a positive result is low when prevalence is low). At the same time, the notion of quality is evolving: quality can no longer be considered as simply an absence of defect. A mere compilation of favourable results, indicating an absence of detection, is no longer a truly satisfactory way of guaranteeing the quality of products. The question then arose of transforming ‘absence of information’ (no defect detected) into a positive value. This would have the effect of increasing confidence in products produced under conditions that are controlled so as to prevent any risk of defect, rather than in products that merely state ‘absence of defect’, without any information about production conditions.

The need to develop preventive measures, enabling the sanitary quality of all the foodstuffs produced to be controlled, has gradually been recognised, as is the case in other fields of activity. The systems have evolved towards a global procedure for controlling food safety hazards at each stage of production.

The preventive management of hazards through the control of production processes, notably using the HACCP method, developed first among agri-food firms, before becoming generalised in earlier stages of the production chain, notably at the abattoir and on the farm.

Whereas HACCP-based approaches chiefly concern industry operators, risk analysis has established itself as a tool for public sector managers to determine priorities for action (5, 11). Qualitative and especially quantitative risk assessment is a developing science, notably in the microbiological field. Whatever the response provided so far by the various countries, the question of the separation between risk assessment and risk management tasks has been raised since the food safety crises of recent years.

The precautionary principle, the subject of numerous legal debates, is increasingly influencing the choices of decision-makers. It involves taking action on risk management in a climate of scientific uncertainty, while respecting the principles of proportionality and consistency.

With the concept of food safety objectives, food safety is approached in terms of the level of protection that is sought at the time of consumption. Performance criteria are defined (by the administration and by international organisations) and implemented by food animal production operators (2, 5).

Lastly, mention should be made of the increasing concerns over animal welfare and their gradual incorporation in the overall approach in the various sectors.

These various changes, relating to the nature of concerns and to methodology, have had the effect of bringing the two sectors of the Veterinary Services closer together, namely animal health and food hygiene, traditionally separated in terms of staffing, culture, practices and even their professional strategy: animal health has taken on board the principles of the integrated approach in food safety area, while food hygiene now takes into account statistical notions on the quality of tests and their results depending on how the tests are implemented and the implications for sampling techniques, as well as epidemiological methods for identifying risk factors. In the field, the continuity of the production chain from the stable to the table means that the players in both these sectors are increasingly being required to share their concerns, their data, and their methods of investigation.

**THE TOOLS AND THE PLAYERS**

Changes in approaches and concepts are paralleled to a certain extent by changes in the tools and the players.
The move to a culture of integrated prevention notably implies:

- measures to ensure the traceability of animals and products throughout the production chain, without any breaks
- integration of interventions by professionals at each stage
- a new distribution of responsibilities between the different players
- an administration that holds all the information, by means of a harmonised control policy
- an administration with the capacity to extract information throughout the entire chain.

**The need for traceability**

The system of confidence in the quality of products, which relies on the accreditation of production systems, will only be valid if the following conditions are met:

- implementation of a surveillance system capable of detecting any incidents affecting the continuity of quality
- the system must also be capable of identifying the defect in the production system that caused the incident, whatever the step in the production chain
- the capacity to act swiftly to withdraw unsatisfactory products (and only those) from the distribution chain.

Traceability is the ability to trace the history, use or location of a given item, by means of identified records: it is an essential tool in integrated approaches to managing food safety risks. Downstream, it allows potentially defective products to be recalled and, upstream, the source of the problem can be traced and remedied.

At the processing level, the operator is responsible for traceability (tracing forward to identify batches already produced, or tracing back to the suppliers). The administration verifies its suitability for the objectives that have been set and its effectiveness, within the framework of a second level of controls.

For live animals, however, the administration is responsible for organising animal identification and monitoring of animal movements (except in the case of highly integrated production chains). The administration may delegate certain activities in this sphere to professional organisations. It should be noted that identification can serve other objectives besides food safety, and this explains why it may already have been introduced: control of epizootics, subsidies allocated per head of cattle (notably within the framework of the EU Common Agricultural Policy), genetic improvement.

**A new sharing of responsibilities**

The integrated approach to sanitary risks in the food chain has led to a redefinition of responsibilities between professionals and the authorities.

Under the traditional approach, responsibility for the sanitary quality of products lies totally with the official services, which control the end product, and may also control production conditions.

At an intermediate level, the operators are responsible for the quality of the products they place on the market, the first level of control still being performed by the official services.
Lastly, the changes now taking place are resulting in a sharing of responsibilities. The operators are responsible for the quality of the products they place on the market and must implement preventive measures, notably based on the HACCP method. The public authorities exercise a second level of control, by verifying the measures taken by the operators.

Whatever the system in force, the administration assumes overall and ultimate responsibility with regard to the consumer and for international trade (certification). It therefore needs an overall vision of all the systems, sectors and their interactions, and must be organised accordingly.

The role of the operators

Countries are having to redefine the responsibilities of producers and the types of partnerships that need to be established.

Livestock producers

Livestock producers are the first sentinels on the farm. They must have sufficient training to be able to detect pathological problems in animals, especially epizootic diseases, and also, in the context of integrated management of food safety, be capable of applying measures that have no visible impact on the live animal (control of drug residues, avian salmonelloses, etc.). Training can best be provided by producers’ organisations, with the technical support of the public services or private veterinarians accredited by the administration.

However, training is not in itself sufficient. Livestock producers must also agree to work towards controlling risk factors, and consequently change their practices, something that never occurs spontaneously. This change in behaviour, which must be voluntary, can be based on a strategy of incentives (prospect of access to an attractive market) or disincentives (threat of measures that will effectively bar them from their usual market).

A recent survey of 31 countries (1) found that producers were given responsibilities in 90% of countries, but many countries reported serious weaknesses in terms of producers’ organisations and qualifications.

This explains why an adequate veterinary presence on the farm is a key element in an integrated approach.

The abattoir

The abattoir has always been, and remains, the ideal place for epidemiological surveillance of animal diseases, especially zoonoses. All farm animals pass through the abattoir, thus allowing a link between inspection of the live animal (ante-mortem) and inspection of the carcass (post-mortem). As the first stage in processing, it is here that carcasses and co-products are systematically inspected by the sanitary authorities, samples are taken for analysis (BSE, residues, etc.), etc.

In an integrated approach to food safety, some inspection duties may be delegated to industry professionals, notably in soil-free production systems. This remains strictly supervised by the authorities, whether directly or by accredited agents.

Veterinarians are present at the abattoir, the first stage in processing, where they carry out pre-slaughter and post-slaughter inspections.
Other agro-industries

Industry managers must have the necessary competencies to apply HACCP principles. The authorities provide a second level of controls; the methodology for these controls is still evolving.

Veterinarians are increasingly being used in a consultancy capacity, to advise secondary processing firms or as managers or consultants with large commercial distribution chains, on all matters relating to food safety.

WHY ARE VETERINARIANS LEGITIME AT ALL STAGES OF THE FOOD SAFETY CHAIN?

Veterinary medicine is characterised by three specific aspects:

- The unit of veterinary care, at least as far as livestock are concerned, is more often the herd than the individual animal, which means combining therapy (i.e. correction of the defect in sick animals) and prevention (for the other animals in the herd). This collective approach to pathological phenomena will, in the case of transmissible diseases, include the farms within the same region, for which a specific tool is required, namely epidemiology.

- The economic limits on the actions of the veterinarian are dictated by the financial resources of the owner. In the context of monitoring herd management, this means optimising the profitability of animal production units, mindful at all times of the cost effectiveness of each action.

- Veterinarians must at all times arbitrate between the interests of the private individual (i.e. the owner) and the interests of the community, endeavouring to reconcile them wherever possible. Ultimately, however, priority will be given to the interests of the community, in most cases backed up by the regulations.

In the 19th Century, the initial legitimacy of veterinarians was extended to include the sanitary inspection of slaughtered animals. With their knowledge of diseases in live animals, veterinarians were quite naturally called upon to detect signs in carcasses and to evaluate which parts of the animals were fit for consumption. Thereafter, this competence was extended to include hygiene of food products of animal origin and, in the course of time, upstream to agricultural inputs and downstream to the different stages of processing, and even distribution.

The corresponding disciplines are now taught in veterinary universities, or at least in those that comply with international quality standards. They are a logical extension of the fundamental and clinical disciplines and together form a coherent unit.

It should be noted that there is a parallelism between veterinary intervention in farm animal pathology and risk management procedures in agri-food companies (Table I). Procedures such as the HACCP system are based on a similar approach to that of procedures for diagnosis and therapeutic decision-making.

The integrated management of food safety risks is in many ways similar to the management of animal health.

Lastly, veterinarians’ experience of working within a context of regulations on notifiable diseases leaves them favourably disposed to apply standards that provide a framework for actions to prevent and control food safety hazards, thereby strengthening the role of the veterinarian in consumer protection.
Table I – Comparison of veterinary actions in livestock production and in agri-food companies

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<th>Livestock pathology</th>
<th>Agri-food industry</th>
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<tr>
<td>Pathology</td>
<td>Pathology of individual animals</td>
<td>Microbiology</td>
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<td></td>
<td>Preventive approach at herd level</td>
<td>HACCP approach</td>
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<td></td>
<td>Clinical approach</td>
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<tr>
<td>Economics</td>
<td>Action weighted according to the value of the animal</td>
<td>Profitability of the firm</td>
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<td></td>
<td>Profitability of the production unit</td>
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<tr>
<td>Arbitration between the</td>
<td>Community interests take precedence over the interests of</td>
<td>Protection of consumer health – takes</td>
</tr>
<tr>
<td>interests of the individual and the community</td>
<td>the individual owner (transmissible diseases)</td>
<td>precedence over the financial interests of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the firm</td>
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<tr>
<td>Overall approach</td>
<td>Integrated animal health approach</td>
<td>Integrated approach to preventing food</td>
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<td></td>
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<td>safety hazards</td>
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THE VETERINARY SERVICES

The involvement of veterinarians throughout the food chain also concerns the Veterinary Services.

Historically, the Veterinary Services were set up to control animal diseases at the farm level. Their field of intervention was then quite logically extended to include the abattoir, with a dual responsibility: on the one hand to supplement their information on animal health (lesions), and on the other hand to evaluate the wholesomeness of meat for the consumer. Abattoir inspections gradually came to be aimed at ensuring food quality in the latter stages of production.

Following on from livestock production and the abattoir, the Veterinary Services have often been assigned the task of sanitary control of animal products at different stages of processing, and even distribution. In some countries, they perform the majority of controls right up to the final consumer. In other countries, responsibilities have been shared with one or more other services, this being particularly the case in later stages of the food chain, notably distribution. These other services were competent for the end product, and for controlling general hygiene conditions in establishments.

With food safety increasingly integrating interactions between the different stages in the chain, the logical trend would be for a single structure to be made responsible for the official controls throughout the production chain, at the very least from the farm up to the final processing of the products. As an absolute minimum, there must be organised and effective coordination between the different public structures.

The Veterinary Services are present, and have a legitimate role, at the farm level, either directly or through the intermediary of specially accredited veterinary practitioners. In addition to carrying out animal health and protection missions, they control the measures needed to ensure the subsequent safety of food products derived from animals.

Furthermore, when the organisation of public services relies on a single structure to ensure the control function ‘from the stable to the table’, the Veterinary Services, however they are organised, are the legitimate solution. Conversely, their competencies grant them a strategic role in the optimal coordination of the control services.

The aforementioned survey (1) reveals that, irrespective of the diversity of administrative organisations, often linked to the culture and history of the country, the Veterinary Services have a predominant place in
primary production, at the level of the farm and the abattoir. They also have virtually exclusive responsibility in international trade, both for exports, for the sanitary certification of live animals and animal products, and for imports.

In general, all countries endeavour to ensure a continuum in the chain of controls, if only by setting up coordinating structures between the relevant services. The Veterinary Services play a leading role and are generally assigned duties, either alone or in partnership, throughout the system. The overall effectiveness is variable and depends on many different parameters, but a comparison between the estimated global performance of control systems and the different organisational systems tends to confirm that the leading role played by the Veterinary Services, whatever their type of structure, is a highly conducive factor.

A very high proportion (86%) of the countries surveyed underwent a reform of their control services between 1997 and 2004, which clearly confirms the need felt by the decision-makers to adapt the organisation to changing contexts. A very large majority of these reforms involved the consolidation of competencies for all or part of the production chain.

INTERNATIONAL STANDARDS

In a context of growth in regional and global trade, it is imperative that the same concepts and tools are shared by all, for the sake of rationalisation and a better understanding between countries and between operators. Standardisation is an indispensable tool allowing the adoption of the most cost-effective, harmonised procedures. It is a guarantee that the certification of exported products is based on written methods, thereby reassuring customers.

Two bodies are considered competent to issue international health standards in the field of animals and animal products: the OIE and the CAC. Since 1995, when the SPS Agreement came into effect, their standards are the reference for the WTO for international trade.

World Organisation for Animal Health (OIE)

The OIE is an intergovernmental organisation. In May 2004, it totalled 167 Member Countries. Its objectives are as follows:

- to ensure transparency in the global animal disease situation
- to collect, analyse and disseminate veterinary scientific information
- to provide expertise and encourage international solidarity in the control of animal diseases
- within its mandate under the WTO SPS Agreement, to safeguard world trade by publishing health standards for international trade in animals and animal products
- to improve the legal framework and resources of national Veterinary Services
- to provide a better guarantee of the safety of food of animal origin and to promote animal welfare through a science-based approach.

The OIE’s work programme for the period 2001-2005 (7) recommends that the ‘the OIE should be more active in the area of public health and consumer protection’ and states that this participation should involve ‘zoonoses and diseases transmissible to humans through food, whether or not animals are affected by such diseases’. The OIE had traditionally limited its role to preventing the transmission of animal diseases to other animals or to humans. It had not yet got down to formulating food safety recommendations to prevent
the occurrence of these diseases, especially those where the pathogen in question does not induce clinical signs in animals.

A permanent Working Group on Animal Production Food Safety, including experts from the CAC and Codex Committees, was therefore set up, in November 2002. Its work programme emphasises the need to verify that the work conducted by the OIE and the texts produced address public health concerns. It underlines the need for consistency between the texts produced by the OIE and those of the CAC concerning the roles and functions assigned to the Veterinary Services (6). The Group has proposed the elaboration of a joint OIE/Codex text on the ‘dual role and overall functionality of veterinary services in meat hygiene […] throughout the food chain’, including animal health and welfare functions that can be fulfilled by veterinarians responsible for food safety controls (6).

The OIE places the Veterinary Services at the centre of its interests, and considers that the application of its standards depends on the quality of these Services. To fulfil their missions, the Veterinary Services can call upon private veterinarians, and also on paraveterinary staff (notably community animal health workers) – the latter on condition that they are placed under the responsibility of a veterinarian. These auxiliary staff are then considered to be an integral part of the Veterinary Services. They must be accredited by a statutory veterinary body.

The OIE has a Collaborating Centre (École Nationale des Services Vétérinaires [France], OIE Collaborating Centre for Training of Official Veterinarians – www.vet-lyon.fr/ensv) responsible for providing support for Member Countries, at their request, to enhance the capacity of their Veterinary Services for the full range of their missions ‘from the stable to the table’.

**Codex Alimentarius Commission**

The CAC was created in 1963 by the FAO and the WHO to develop food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Programme. The main purposes of this Programme are protecting health of the consumers and ensuring fair trade practices in the food trade, and promoting coordination of all food standards work undertaken by international governmental and NGOs.

In developing its standards and guidelines, the CAC attaches growing importance to risk modelling throughout the food chain so as to implement a ‘production to consumption’ approach to food safety (4).

Unlike the OIE, the CAC does not usually cite any particular professional group in its standards.

The Draft Code of Practice for Meat Hygiene (2) currently being developed embodies an integrated approach for this sector, since it combines three earlier codes into a single document, which will cover hygiene, ante- and post-mortem inspections, and judgement. The available measures must be applied at the levels where they will be most effective in reducing risks to human health. The draft text underlines the dual objective of abattoir inspection, animal health and zoonosis control on the one hand, and public health on the other hand. Inspection must be proportional to the potential risk and may be eased depending on the available farm data (for batches of poultry, for example). In a departure from the general approach of the CAC, the draft refers to the involvement of veterinarians: for the surveillance of slaughter, inspection of animals and primary processing.
Coordination of the work of the World Organisation for Animal Health (OIE) and the Codex Alimentarius Commission

In line with an integrated approach, the CAC and the OIE have agreed on strategies and procedures that will enable them to coordinate and integrate their activities at all stages of the food chain. Under the terms of an agreement concluded in 2002:

- the OIE is competent at the production and primary processing level (abattoir, dairy), for measures relating to animal health and food safety, namely for any events that can have an impact on the subsequent safety of food products
- the Codex Alimentarius elaborates standards relating to the production conditions and quality of products during and more especially after the primary processing stage.

International Health Regulations

In May 2005, the World Health Assembly, the supreme decision-making body of the WHO adopted a revised version of the International Health Regulations, aimed at strengthening the governance of health worldwide, notably the responsibility of States to one another with regard to communicable diseases. The previous text dated from 1969.

In its initial version, the text included all communicable diseases, including animal diseases, notifiable to administrations responsible for human health. It was only through the action of the PAHO and the Director General of the OIE, that a link to OIE standards was introduced at the last minute for animal diseases. Nevertheless, in 64 pages, there is not a single mention of the words ‘zoonosis’ or ‘veterinarian’.

This shows the importance of closely monitoring the work conducted in the field of human health, notably at the level of the WHO, where governments are generally represented only by their Ministers of Health.

CONCLUSION

Food production chains are becoming longer and more complex, and at the same time there is a massification and globalisation of risks and consumption. The only way of managing food safety risks is now to adopt an integrated approach from the stable to the table.

Consumers understand less and less about the ‘black box’ of the agri-food industry. They see it through the eyes of the media, which are always on the lookout for food scares. They are becoming increasingly demanding when it comes to the safety of their food. Their fears, whether rational or irrational, provoke a growing demand for food safety and for the relevant guarantees.

Veterinarians, as professionals dealing with live animals, and the Veterinary Services, in the public sector, have a major role to play in responding to these social issues. Present as always at the animal production level to provide health guarantees, they are key players in the integrated approach. Their training and the framework within which they operate gives them full legitimacy:

- the agri-food system provides veterinarians with opportunities to work on behalf of public health;
- the Veterinary Services must assert their position as leader or coordinator, when this is not yet made clear in the administrative organisation.

Similar issues exist in the sphere of international standard-setting, competence being shared between the OIE and the CAC.
Communication is fundamentally important in the modern world. To address the challenge of food safety in the 21st Century, action is required, but we must also build consumer confidence.

References


FINANCIAL CONSTRAINTS: HOW THEY AFFECT THE SERVICES PROVIDED BY THE PUBLIC AND VETERINARY SERVICES. STRATEGIES FOR THE FUTURE

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INTRODUCTION

The fundamental objectives of Veterinary Services regarding animal health and zoonotic diseases encompass the functions of certification, notification, quarantine, inspection and surveillance.

The role of Veterinary Services remains relevant provided the services they offer are in the public interest, are impartial, and give priority to equal access and to the welfare of all users.

The demand for Veterinary Services is expected to rise in line with the increasing demand for food animal production along with the associated fields of genetic management and systems of food storage, preservation and transportation.

However, despite increased production and a trend towards increased efficiency, the output of high quality animal products will remain at a low level while family-based production remains at subsistence or local market levels due to the effect of increasing poverty and marginal productivity.

Once only envisaged in science fiction, globalisation is rapidly making the nations of the world more inter-connected. Globalisation is impacting on animal health and production and zoonotic disease incidence, with repercussions on trade and access to markets and technology.

Globalisation necessitates urgent changes to the criteria by which Veterinary Services operate. Animal production systems in developing countries where labour and inputs are cheap and where risks to human health exist due to husbandry methods, are faced with marginal opportunities and severe challenges; for example, the effects of increased tourism and transportation and the development and maintenance of new technologies. It is evident that globalisation has facilitated the introduction of TADs resulting in unrecoverable economic losses.

Consumers who benefit most from Veterinary Services are clearly identified by their economic standard and may demand products of a different level of quality based on this - for example, ‘export quality’. Therefore, pressure on markets will continue. Nevertheless, consumers of low economic status should have access to food of the same quality and safety as those of higher economic standard.

For many years, two different quality and food safety certification systems have been encouraged by importing countries, whereby the quality of exported products differs from that of products for local consumption. Inconsistencies exist between the actions of Veterinary Services and domestic sanitary policies.

It was once believed that Veterinary Services which provided high quality certification, inspection and quarantine services would provide a competitive advantage. This may not be so in the future due to the impact of trans-boundary animal diseases and their devastating effects on trade. Preventative measures are
less expensive than solving problems once they become entrenched, underlining the importance of high quality Veterinary Services regardless of a country’s economic, productive, social and cultural situation.

Veterinary Services in the regions have suffered from policies, supported by international organisations, which have fostered reductions in government infrastructures.

Financial constraints have resulted in many changes, including privatisation, decentralisation, the integration of Veterinary Services, altered accreditation, and reductions in budgets and personnel, while demands have increased.

The main objective of this presentation is to focus on Veterinary Services as a ‘global public good’ whose actions and non-actions go beyond the frontiers of countries and continents, thereby having a direct impact on production systems and both animal and human health.

A second objective is to support the strengthening of Veterinary Service capabilities, so as to not only maintain current service levels, but also to provide for future demand with respect to certification, inspection, animal health information and early response systems.

In addition, all participants involved in animal and public health should work together in close alliance with each having defined responsibilities and functions.

Public sector functions should be clearly defined with specifications on how these functions are to be carried out. At this stage, the recognition of Veterinary Services as a ‘global public good’ should prevail.

SUPPORT FOR VETERINARY SERVICES

In response to continuing national crises, and policies which reduce animal health budgets, there appears to be a need to support the diverse components of national Veterinary Services in different ways and by a variety of organisations.

Assistance has been provided to all parts of Veterinary Services (such as inspection and regulation), and to all countries regardless of their economic situation. Funds have also been provided for the acquisition of equipment, and the training of officials and private personnel. Funds have come from soft loans at low rates of interest and with extended repayment periods, as well as from donations. These loans are provided by international banks, various governments, and international organisations.

The outcomes of assistance programmes may vary but without doubt their implementation could be improved and better targeted.

The OIE has undertaken a number of initiatives to support Veterinary Services all over the world:

1. The Memorandum of Understanding signed with the World Bank in 2001 was an important step forward in strengthening the capacity of interested developing countries to meet the common objectives of the two signing organisations; in particular, by supporting both public and private veterinary services. This event was also an important step for the recognition of the public and private components of national Veterinary Services as a ‘Global Public Good’

2. The STDF came as a direct response to demands to tailor capacity assistance to the needs of developing and ‘in transition’ countries, and not merely to provide ‘generic’ assistance. At the WTO Ministerial meeting in Doha, this became one of the major issues and resulted in substantial commitments being made by the WTO, the World Bank, the OIE, the FAO and the WHO to respond with
targeted technical assistance. More specifically, the OIE submitted three different projects to the facility which were all adopted for a total amount of approximately US$500,000. They address:

- the training of trainers for OIE national representatives (Delegates) and national Veterinary Services
- the new tool for the evaluation of Veterinary Services in compliance with OIE international standard of quality
- the strengthening of Veterinary Services in Africa (part of the ALive project)
- specific capacity building activities of the five OIE Regional Representations.

FUTURE STRATEGIES

The future is tomorrow, and the need to provide quality services which guarantee adequate control of animal diseases, including zoonoses, is constant and urgent. The above-mentioned activities supporting veterinary services will be implemented when it is appreciated that the entire world needs access to safe and healthy food and that this need will continue to increase. This will be possible if animal health controls, including over zoonoses and food safety, from the farm to the fork, are undertaken.

The activities undertaken by the OIE which focus on the strengthening of the capacities of Veterinary Services, are considered a basic strategy for the future.

The Veterinary Services of developing and transition countries are in urgent need of support for the provision of essential resources and capacities which will enable them to benefit more fully from the WTO SPS Agreement, while at the same time improving their capabilities in early detection, diagnosis and control of animal diseases, including zoonoses.

Where the quality and capacity of Veterinary Services are clearly under stress, improvements should be implemented in line with the OIE international sanitary standards. In addition, the OIE, in recognition of the need to identify which parts of veterinary services require improved capacities, has developed a tool which permits fast, easy and efficient detection of such parts.

The instrument for the evaluation of Veterinary Services, named the ‘PVS tool’, introduces elements such as vision-sharing between private and public sectors in order to prioritise areas needing capacity improvement and for allowing follow-up and evolution of the various measures undertaken.

We should consider that it should not be a competitive advantage for a country to have a better quality Veterinary Service than other countries, or to have the most efficient rapid response or surveillance systems; or a disadvantage for a country to have an lower standard of educational and training capacity, or inadequate laboratory equipment. These are RISK issues that go beyond national borders. These factors should not be sufficient to prevent a country’s participation in international trade in order to avoid the introduction of animal diseases and zoonoses. The best way to prevent incursions is to improve the capabilities of such countries.

Strategies to be undertaken in the future should emphasise the importance of continued maintenance of the assistance provided to countries in the form of loans or donations. The provision of education and training to veterinary service officers, private veterinarians, veterinary college students, among others, are key tools to achieve this purpose.

The support to the Veterinary Services provided through donations or soft loans should enable countries to use the OIE PVS tool for the evaluation of Veterinary Services in compliance with the OIE international standard for the quality of veterinary services.
Closer interaction with the private sector should be maintained at all levels and should be adapted to countries’ needs. The interaction at primary producer level should take into account issues such as discussion on the implementation of sanitary campaigns, surveillance systems, vaccination campaigns and other field activities, where a joint effort involving all sectors is necessary. In this context, some countries are developing campaigns to combat foot and mouth disease, classical swine fever and avian influenza.

Furthermore, in some countries a project has been carried out on inspection procedures in both food animal production and the animal feed industry, with joint participation of the different sectors.

Keeping decision-making groups informed, including public and private sectors, politicians and the press, will raise awareness of the important role that Veterinary Services play in maintaining animal health. The recognition of the ways in which animal diseases affect animal and human health and trade, and cause devastating economic losses, will serve to encourage all related sectors to increase their investments and thus strengthen the capabilities of Veterinary Services. Public and private donors will recognise the significant relationship between financial aid to Veterinary Services and subsequent increased production and trade, and an improved economy.

Finally, it should be stressed that international organisations must work together while avoiding the duplication of functions and unnecessary effort, and must use available resources appropriately.
NEW TOOLS FOR THE TRAINING OF VETERINARIANS AND IMPROVEMENT OF VETERINARY SERVICES

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INTRODUCTION

There is no question that the use and adoption of new tools and improvements are important to the success of any organisation; however, the critical issue is not that we need to be better prepared, but rather, better prepared for what? Tools and improvements are means to an end and represent enabling technologies and concepts, but the fundamental task is to first define the goals and outcomes for organisations.

For veterinary medicine and Veterinary Services the best way to answer those questions is to conduct an outside-in assessment process and get a perspective from those we serve and their expectations and needs. It can be dangerous to view what is changing and what our challenges are through the lens of just our own worldviews and perspectives. Thus, societal demands and needs, rather than those of our own profession or organisations, need to define and drive our future training, improvements, and goals.

DEFINING NEEDS

The ultimate test for success will be determined by how well veterinary medicine and Veterinary Services truly meet the needs of society. A useful construct to consider is a Venn diagram that depicts five connected and overlapping domains. These represent areas of work and include: public health, ecosystem management, biomedical research, food systems, and animal health. The veterinary profession has responsibilities and obligations to meet societal demands from its work and programmes in each of these areas. While these areas themselves have remained fundamental, the context and changes within each of these areas have changed dramatically.

A built-in professional bias exists today that favours private veterinary practice, and especially practice that focuses on companion animals with greater levels of sophistication and specialisation. While the shift of the veterinary profession toward companion animals represents a shift to meet the demands of constituents for such services, the other four domains are being underserved. By and large the growing dedication of veterinary medicine to private companion animal practice will lead to greater levels of sophistication and service delivery, but will not lead the advancement of the profession and meeting societal needs in the other domains. Thus, our governmental Veterinary Services have a special challenge to address the important needs in the other areas. Improvements and their capacities will need to be driven by training, new tools, and resources.

In addition, perhaps the most important areas of progress and opportunity for the profession and Veterinary Services can be found at the intersections of the five circles in the diagram. This is especially true when considering the interactions between public health and the other dimensions or domains. The expanding portfolio of possibilities and opportunities for the future will lie within the intersections of multiple domains, disciplines, and knowledge. J. Kotter noted in his book *The New Rules* that, ‘if we have anything to worry about legitimately, it is less the opportunities than our capacity to equip people to take advantage of these...’
opportunities’. Kotter’s premise is very true for veterinary medicine and our services. Therefore, new tools and improvements must focus on building our capacity to meet needs and opportunities and also to create the mindset and intention to both better understand and resolve this challenge.

ATTRIBUTES FOR SUCCESS

Another useful model for considering new tools for training and improvement is presented by R.M. Kanter. She described the essential assets of a world-class organisation, especially in the context of a rapidly changing global world. Her conclusion was that a new world of ‘cosmopolitans’ would define world class. This new group of leaders would be comfortable with ambiguity, change, bridging cultures and differences and would be differentiated by not only skills and knowledge, but also by a different mindset for exploiting opportunities. Dr Kanter also believes that the cosmopolitans will have three critical attributes and skills that include concepts and thinking; competence and doing; and connectivity and building relationships.

Using her model, it is useful to consider the training of veterinarians and improving Veterinary Services with this understanding. Certainly the contemporary issues, unprecedented opportunities, and changing needs of society will transform our profession and professional organisations. However, before we can transform others, we must first transform ourselves. This transformation is the essence of developing the new cosmopolitans and our attention needs to focus on building this world-class group to lead us into the future.

CONCEPTS

Change in the 21st Century is discontinuous, abrupt, and seditious. The problem with the future is not that it is unknowable, but rather that it is different. Thus, if the profession and our services cannot think differently, the future will always arrive as a surprise and one that we are seldom prepared to address. It is interesting to note that the US Army War College, renowned for its ability to prepare military leaders for their future work, has adopted the concept of the ‘VUCA’ university. The term is an acronym that stands for volatile, uncertain, complex, and ambiguous. This highly talented training group has characterised the future, new enemies, and new opportunities all emerging from a discontinuous, asymmetrical and unclear world. The same can be said for the veterinary profession and especially our Veterinary Services whose missions, constituents, circumstances, capacity and work environment are very different from the past. Our vulnerability would seem to lie in the fact that we have difficulty in abandoning our seriously outdated organisational models and skill sets.

Unlike the preceding centuries and eras that have been named, the rapid changes of the 21st Century seem to preclude this from happening today. However, the emergent strategy for success strongly points to the concept of global collaboration. Reconciling our strong independence with our interconnectiveness in the world, the shift to international interests and economies, and the tools of information technologies suggest that collaborative partners of organisations and arrangements is the common denominator for future success. Team building, shared leadership, and relationship building must be taught and learned; thus, future training will need to incorporate these skills.

COMPETENCIES AND TOOLS

Although there is overwhelming evidence for the need to prepare for a VUCA-type world and the profound changing needs and demands of society, attaining new skills and building new competencies are the keys to achieving this strategy. Cosmopolitans, according to Kanter, must be competent in new ways and in new areas.
A number of new tools for training and ensuring improvements in our services will need to focus on information technology and bioinformatics. One critical area is knowledge management, which will help uncover and leverage intellectual assets in our organisations. The essence of knowledge management tools is the ability to detect trends and patterns from disparate data sets, to mine data and then reorganise it in ways that reveal new knowledge, and to discover connections between disciplines and information that have been previously disconnected. Knowledge management will be an essential competency and tool of the future as data sources expand, confluences of veterinary medicine with other aspects of society occur, and forms of artificial intelligence becomes more sophisticated.

R. Reich believes that symbolic analysts will become a growing discipline and will represent a significant number of new jobs in science and bioinformatics. These analysts add great value to plans, designs, strategies, images, and formulas by simplifying reality into abstractions, then rearrange, reconsider, experiment, and transfer data back into reality (3). New solutions are often embedded in what we already know but haven’t been able to envision or extract. Advances in information technology are creating exciting new tools and capacities and veterinary medicine needs to be an earlier adopter of these technologies.

With the advent of new sensor technology, once invisible data layers will become visible based on breakthroughs in context-awareness computing. We will shift from disembodied data to embodied visualisations. As abstract data gets linked to real places and people/animals, we will begin to see our world in very different ways. Geo-webs, space imaging, physically embedded data, genetic mapping, and emergent intelligence will help redefine our understanding of diseases, multideterminants of risk and prevention, emergence of pathogens and issues of national security. We will very quickly enter into an era of sensory transformation (4).

At the leading edge of sensor technology are biosensors. These sensors will find applications in everything from medical monitoring to threat detection in the face of global epidemics. The result will be a more sentient society with subsequent evolutionary changes in public veterinary medicine and the work of Veterinary Services. The opportunities and profound influence of information technologies on our services, products, and capacity should yield a portfolio of new possibilities, especially for public veterinary practice and Veterinary Services. New challenges will subsequently emerge regarding ethical and privacy considerations as data is progressively personalised.

Another very important area of consideration in the dimension of competencies is the need to change the curricula for graduate education and academic veterinary medicine. Teaching and learning need to match new competencies with future needs. Thus, the following components need to be added to our curricula and continuing education offerings: informatics, genomics, risk analysis, communications, cultural competency, public policy and law, global health, disease investigation, biosecurity, epidemiology, research and study design, critical thinking, and leadership. Contemporary issues of the 21st Century require a new skill set and new experience to successfully address them.

In addition to adopting a new curriculum, it will be equally as important to delivery training in novel ways. Unlike the past, adult education and continuing education are no longer limited by physical location or by face-to-face interactions between faculty and students. Long distance learning through a variety of web-based systems is part of our current reality. Telemedicine will permit new opportunities for new services and new learning, especially in clinical and remote settings. Professionals can be exposed to and taught by nationally renowned faculty 24 x 7. More and more, information can be accessed in real time and when there is a need to know. Training and education will need to be more flexible and creative to meet the constraints of people’s work and their active lifestyles. New veterinary professionals are more apt to move in and out of the work place more frequently and will value expanding their portfolios in exchange for work done in bursts of activities and for special circumstances. Hiring professionals for a lifetime within a single
organisation is quickly becoming passé. Therefore, training and acquiring new competencies and tools will be a positive job recruitment incentive for a mobile and dynamic workforce.

PERSONNEL DECISIONS INTERNATIONAL

Personnel Decisions International conducted a study for a group of colleges of veterinary medicine several years ago in order to determine the non-technical core competencies possessed by successful veterinarians. Their study revealed that successful veterinarians had the following skills and competencies:

1. interpersonal skills for building relationships
2. self-management through acting autonomously and confidently, driving for results, being adaptive, pursuing further development and education and demonstrating integrity
3. communication excellence
4. leadership through personal commitment and also by motivating, influencing and coaching others
5. business acumen
6. exceptional thinking skills by being innovative and using sound judgment (5).

It is interesting to note that non-technical skills are just as important as technical skills when determining success. These core competencies can be taught and learned; thus, Veterinary Services can and will improve by ensuring that their personnel acquire these skills.

CONNECTIVITY

The last phase in training and preparing for becoming cosmopolitan is to learn connectivity. Although the concept and discipline of incident command makes sense for managing crises, perhaps the most significant shift in becoming world class is to change from command and control to coordinate, collaborate, and cultivate. This mindset is important as both a new working strategy and teaching technique.

The PPP are good examples of a collaborative strategy that is especially helpful in resolving complex problems with a broad scope of activities. For example, reducing the incidence of foodborne illnesses has been successful by using PPP. In delivering new tools and improvements, government agencies should partner with academic experts and private industry.

As Veterinary Services become more visible with regard to global trade, emerging diseases, environmental issues, animal welfare, public health, new zoonoses, and biomedical research, they become more closely connected to the public that they serve. Thus, greater public engagement is a sequela that is central to connectivity. Veterinary Services need to see themselves as part of a global community and be more aware of their surroundings and the broad perspective of viewpoints that collectively help define changes in public value.

T. Friedman believes that the greatest gains in productivity in the future are likely to evolve based on an organisation’s ability to learn to collaborate and manage horizontally (6). New skills and processes are needed to achieve new ways of working and getting things done. Technological tools are becoming available to assist with horizontal collaboration. Training and improvement programmes will need to incorporate these tools and skills.

The technological advances associated with horizontal collaboration are similar to using small world networks as a creative strategy to improve our organisations and services. The playing field for veterinary
and government services is changing dramatically. More and more non-traditional players are becoming involved in their work and decision-making. The ability to engage multiple interest groups and communicate with them has been made much easier through small world networks (7). In addition, this architecture is now being used not just for social and manmade systems, but is now receiving a lot of attention in biological systems to better understand the dynamics of epidemics and the spread of disease. Veterinary Services have come to rely far more on a vast network of non-governmental partners, but they have not yet figured out how to manage them well. With the world becoming wired, joined up and organisations pushed down, citizens are closer to services and delivery options to choose from. The social dimension of small world networks will continue to change profoundly as the world shifts from random connections of people through the internet to the purposeful connection of millions of users connected together based on common interest, ideologies, and concerns. This form of connectivity will likely change the relationship of Veterinary Services to constituents permanently.

CONCLUSION

Veterinarians and Veterinary Services need additional training and tools to meet new challenges posed by globalisation, scientific and technological advances, changes in agriculture and the international food system, and the ongoing responsibilities for improving the public’s health, our ecosystems and food system, and also participating in advancing animal and human health through biomedical research. The extent to which we are able to address the complex challenges of the 21st Century and make additional improvements in our services and professionals depends, in large part, upon the quality and preparedness of the public veterinary medical workforce, which in turn, depends upon the relevance and quality of veterinary education and training.

We now appreciate the fact that health is defined in terms of understanding the multi-determinants of risk and prevention factors, their complex dynamics over time and their impact on populations, as well as individuals. This ecological definition of health is also a helpful foundation to use as we train and improve veterinarians in the future. Using the Kanter construct of a cosmopolitan that includes the components of concepts, competencies, and connectivity helps to categorise the skills, knowledge, and experience needed for success in this new ecological approach of who we are and what we do.

The need to redesign a curriculum of courses and offerings is fundamental to meeting the changing needs of society and the rapid changes taking place around us. Technological improvements will offer striking opportunities in disease prevention, detection, response, diagnostics, and recovery systems. The interconnectiveness of our world will revolutionise processes in decision-making, communications, and operations of our services. Progressively, non-traditional groups and individuals will be influencing animal agriculture and Veterinary Services and ultimately change our interpretation of public value and the public good.

Learning to thrive on chaos is not enough. Organisations must build competencies to succeed. We can manage and lead during ambiguous and uncertain times and prepare for the future without knowing exactly what it will be. Besides acquiring new skills and competencies, the future of Veterinary Services will also be based on our ability to create and exploit opportunities. These opportunities will be found at the intersection of the traditional domains of veterinary medicine and will create new disciplines, problem-solving possibilities and demand collaboration and leadership to work differently. Our tools and improvements will be determined by choices and not circumstances, and training is an immediate need and cannot be deferred into the future.
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A PRACTICAL TOOL FOR ASSESSING THE PERFORMANCE, VISION AND STRATEGY OF VETERINARY SERVICES: INITIAL APPLICATION IN LATIN AMERICA

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IMPORTANCE OF AGRICULTURE AND NATIONAL VETERINARY SERVICES

For many countries in the Americas a substantial portion of growth and development is still tied to the performance of their agriculture sector. An economically viable animal production sector is a direct result of investments made to improve and maintain the health and well being of its animal populations, and this directly relates to the effectiveness of the country’s national Veterinary Services. In today’s environment, the impacts of animal health go beyond agricultural production and can positively or adversely affect other sectors, including public health, trade, competitiveness, tourism and the environment.

The importance to a country of a strong national Veterinary Service to overall economic growth and development will continue to increase as animal and human populations grow and globalisation expands. In the Americas, agriculture still accounts for 48% of all exports from Central America and 40% of exports from South America. Some US$ 125 billion dollars in agricultural exports and US$ 85 billion dollars in agricultural imports are facilitated by agricultural health and food safety regulations, standards or norms, or actions such as inspection and risk assessment – all basic and critical competencies of national Veterinary Services. From 1997 to 2020, the global demand for meat is expected to grow by 55% (1). This is an important opportunity for the Americas which produces 34% of the world’s cattle – more than three-fourths in developing countries – and accounts for 54% of total world exports. The largest market for Latin America is the USA-Canadian market, but the second largest market is Latin America itself. Countries in the Americas are divided by almost 50,000 km of land borders, most of which were fixed based on political considerations with little significance when considering disease and pest movements. An estimated 120 million people visit the Americas each year from all over the world, each one with the possibility of accidentally carrying and introducing a new disease or pest. With international trade growing and increasing movements of products, human beings and live animals, the demands placed on national Veterinary Services will increase. The challenge will be whether national Veterinary Services will be ready to step up and take on a greater role and mandate and provide the leadership required to address national and international threats and opportunities.

THE TRADITIONAL ROLE AND EXPANDED MANDATE OF NATIONAL VETERINARY SERVICES

In the Americas, traditional national Veterinary Services started with programmes at the country’s borders. Resources provided were expended within the country towards controlling disease and pest agents that could adversely affect primary production. The credibility of such programmes revolved around continual inspection, surveillance and emergency response to unexpected incursions. Eradication programmes were geared toward specific agents such as hog cholera, FMD and avian influenza. Initiatives were labour and
resource intensive, requiring skilled technical expertise, but the disease profile was generally well understood.

Today’s reality requires national Veterinary Services that operate with an expanded international vision and mandate. This requires national Veterinary Services that can forge stronger alliances with ministries of health, commerce and exterior relations to advance multilateral agendas and help define global standards and international agreements. National Veterinary Services must join forces with and encourage the more active participation of the private sector, defining complimentary roles for each with specific responsibilities in order to improve and/or maintain the overall sanitary status of the country.

The most effective Veterinary Services develop and implement programmes that go beyond the farm level and encompass the entire agri-food chain. The critical role of active participation in international forums is recognised, including the importance of on-going involvement in the OIE and other international standard-setting bodies and forums. Helping to determine new norms and agreements is regarded as equally important as is the smooth operation of quarantine stations. Programme decisions are taken based on the scientific analysis of risk, harmonisation, equivalence or other equally important disciplines as contained in the WTO SPS Agreement.

A CLOSER LOOK AT THE CHALLENGES FACING NATIONAL VETERINARY SERVICES

Global changes are only one of several factors challenging national Veterinary Services. In 2001, the IICA studied the agricultural health country capacity of 31 development countries (2). Three components were assessed: regulatory mechanisms, technical capacity and institutional sustainability. Regulatory mechanisms refer to the necessary legal framework of laws, regulations, standards or norms and enforcement capacity to operate in a way consistent with international norms and standards. Technical capacity focuses on the operational ability to carry out critical functions such as surveillance, quarantine, diagnosis and emergency response. Institutional sustainability refers to the country’s ability to operate effectively and to continually improve over time as conditions and opportunities change. The overall effectiveness of national agricultural services was estimated at 40%; moreover, there existed substantial differences between the three components with the lack of institutional sustainability the lowest by a factor of almost two. One explanation for the large difference is the enormous turnover of ministers of agriculture and directors of Veterinary Services or chief veterinary officers. In the Americas, the average term in office of a minister of agriculture is 14 to 16 months (traditionally, IICA’s governing board is the ministers of agriculture which meet periodically to set strategic direction for the institute). The OIE estimates that one-third of the chief veterinary officers in attendance each year at the international commission meeting of the OIE are first time participants or attendees. In essence, continuity and sustainability are root problems that can not be separated from efforts to improve the performance of a country’s national Veterinary Services.

Across the world, there is tremendous variation in the effectiveness and efficiency of national Veterinary Services. However, upon closer observation, those services who have best positioned themselves to confront the challenges of today and meet the opportunities of tomorrow, have developed their services around four fundamental components:

1. the **technical capability** to address current and new issues based on scientific principles
2. the **human and financial capital** to attract resources and retain professionals with technical and leadership skills
3. the **interaction with the private sector** in order to stay the course and carry out relevant joint programmes and services
4. the ability to **access markets** by complying with existing standards and implementing new disciplines such as harmonisation of standards, equivalence and regionalisation.

These four components provide the basic structure for assessing the performance and determining the vision and strategy of national Veterinary Services.

**THE PERFORMANCE, VISION AND STRATEGY INSTRUMENT**

To assist countries in this effort the OIE and IICA joined forces to develop the PVS instrument. Electronic versions of the instrument in English and Spanish (French is in translation) can be found at the OIE ([www.oie.int](http://www.oie.int)) and IICA ([infoagro.net/salud](http://infoagro.net/salud)) websites. Limited copies of the PVS booklet are available upon request. The PVS instrument assists national Veterinary Services to establish their current level of performance and in concert with the private sector, form a shared vision, establish priorities and facilitate strategic planning and actions, taking full advantage of the new opportunities and obligations from globalisation. The PVS is recognised as an official instrument of the OIE and complements the provisions of the Terrestrial Animal Health Code of the OIE, in particular Chapters 1.3.3, and 1.3.4. For each one of the four components, a series of five to eight critical competencies – twenty-seven critical competencies in total – have been developed along with qualitative indicators of the level of advancement, which are described for each critical competency. Further explanation for each of the critical competencies is contained within the PVS booklet, which is available for distribution. To initiate the process of applying the PVS instrument within the country, each official or stakeholder is provided an overview of the instrument and then asked to assess the level of advancement for each of the critical competencies. This is accomplished by checking one of the described qualitative levels of performance and providing additional written comments, if desired. The instrument was specifically written and designed to engage the private sector in the overall process of improving their national Veterinary Services and this initial assessment is the first step in a dynamic process of modernising national services.

**INTRODUCTION OF THE PERFORMANCE, VISION AND STRATEGY INSTRUMENT IN THE AMERICAS**

Within each county where the instrument has been applied, there have been multiple uses and roles depending on the level of advancement of the national Veterinary Service, the expectations of the public and private sector, and the commitment and continuity of all parties to the process of improving the national services. In its most passive mode, the PVS instrument has served to help orient ministers of agriculture and raise awareness among other officials as to the four basic components and twenty-seven critical competencies that should be contained within their national services. It has served an important educational and awareness role for technicians and professionals in the public and private sector regarding basic performance and measuring improvements. By providing in non-technical jargon, an integrated description of the critical competencies to be contained within the national service, the instrument has promoted dialogue across the public and private sectors. It has provided a common language to better understand and overcome differences and to merge similarities towards the same direction. In essence, the instrument has helped stakeholders and officials establish a shared vision and determine a course of direction for pursuing change and improvement.

The more active mode of the PVS instrument is characterised by a process of bringing together stakeholders and officials to discuss the performance of their national services and to explore perceived differences based on their individual assessments. It is at this point that the public and private sectors begin to realise that the instrument – and more importantly the process – can structurally improve the overall national Veterinary Service. This is a large step beyond simply measuring today’s performance and
is arguably the most important outcome of the entire PVS process as it sets the stage for continued interaction and setting of priorities between the two sectors. Dialogue between the sectors is important and facilitation can help, however, facilitation does not substitute for the leadership role of the official service, especially the chief veterinary officer. This most active mode of the PVS process is works when it leads to a shared commitment and continuity of actions. When this occurs, the stage is set for securing additional investments and the national Veterinary Service is poised for major growth and enhancements.

INITIAL RESULTS OF THE PERFORMANCE, VISION AND STRATEGY INSTRUMENT FOR SELECTED COUNTRIES IN THE AMERICAS

The initial application of the PVS instrument was carried out in ten countries in Latin America. Its application in another seven countries in Latin America is anticipated by the end of this year. With one exception, the instrument remained unchanged from country to country. The initial introduction of the PVS instrument and process within the country began with conversations to raise awareness with key leaders. Presentations to officials and professionals in the public and private sector were relatively similar from one country to another, although there were adjustments made based on country specific circumstances and the level of leadership committed and engaged to the process. Figure 1 summarises the overall performance of the national Veterinary Services of the ten countries for the four major components: 

- technical capacity
- human and financial capital
- interaction with the private sector
- access to markets

None of the components exceeded the halfway mark moving towards the optimal level, although there were significant variations across individual countries. Individual country results are not presented in this report. Individual country data remain with the country and its distribution and use is at the determination of each country. Overall, there is a substantial work to be done in the countries, requiring additional investments of time and other resources in order to move closer to the more optimal level of operation for each critical competency.

![Figure 1](image_url)  

**Figure 1 – Average results of the Performance, Vision and Strategy instrument for ten countries in Latin America**

Figures 2 through five present the combined results for the twenty-seven critical competencies, each grouped by major component. For **technical capacity**, Figure 2 contains the results of its seven critical competencies: diagnostic capability, emergency response, quarantine, surveillance, emerging issues, risk analysis and technical innovation. Only surveillance exceeded the halfway mark, and in this case only marginally. Technical innovation and emerging issues ranked lowest; both are relatively new critical competencies and have not necessarily been high priorities within the traditional Veterinary Services framework.
Figure 2 – Average results from ten countries in Latin America for critical competencies within the component technical capacity

For human and financial capital, Figure 3 presents the combined results of its seven critical competencies: human talent (resources), training, funding sources, stability of policies and programmes, contingency funds, technical independence, and the capability to invest and grow. The human talent (resources) critical competency substantially exceeded the halfway mark, suggesting an adequate resource pool, at least for the moment. However, the training competency ranked the lowest of all the critical competencies, raising the question as to whether a viable human talent resource pool can be maintained, especially as demands on the national services continues to grow. Funding sources and technical independence were the only other critical competencies to exceed the halfway mark, but only marginally. The stability of policies and programmes, the capability to grow and contingency funding were critical competencies that all fell below the halfway mark. Over time, several countries have made substantial efforts to eradicate long-standing diseases, resulting in large variations in the sanitary status of one country versus its neighbour. As such, contingency funding becomes even more important in the unforeseen disease outbreak. Despite this, it ranked second lowest of the seven critical competencies.

Figure 3 – Average results from ten countries in Latin America for critical competencies within the component human and financial capital
Figure 4 illustrates for the interaction with the private sector component, the results of its five critical competencies: information, communication, official representation, accreditation and the capability to respond. None of these critical competencies exceeded the halfway mark, although communication and official representation came closest. This component showed the greatest difference between the assessments made by the private sector and those of the public sector. In almost all cases, the public sector tended to consistently rate higher each of the critical competencies than did the private sector. For the most part, improving the critical competencies in this component does not require large financial outlays and is an area where substantial progress can be made in a relatively short time period.

![Optimal Minimum](image)

**Figure 4** – Average results from ten countries in Latin America for critical competencies within the component interaction with the private sector

Finally, results of the component access to markets are contained in Figure 5 for its critical competencies of: compliance with regulatory norms, formulation of regulatory norms, harmonisation, certification, equivalency agreements, traceability, transparency and regionalisation. Of the eight critical competencies, only two – equivalency agreements and traceability – fell below the halfway mark. Many of these critical competencies gained added importance when the WTO SPS Agreement came into force eleven years ago. Several, such as regionalisation, provide opportunities for trade that were not heretofore possible. Traceability was consistently low across all countries and is a growing area of concern and importance for all ten countries, and most likely others in the hemisphere.

In comparison, the public sector tended to rate higher than the private sector the performance of their country’s national Veterinary Services. In the majority of countries, both sectors were brought together to discuss the initial results, explore differences and identify similarities. These conversations appear to have greater value than simply distributing the initial tabulated results. More often than not, discussing the differences using the language of the performance indicators for each of the critical competencies, often led to a reassessment on the part of both sectors and a readjustment from the initial tabulated results. This is an important validation step. Many times, but not always, the adjustments were downward. However, during this process, there emerged a greater understanding as to what could be done when all parties understood the performance of the critical competency in question and were united in improving it.
ADDITIONAL INSIGHT INTO THE NATIONAL VETERINARY SERVICES IN LATIN AMERICA

From a country to country standpoint, outcomes varied significantly. Nonetheless, the results presented provide important insights into the overall level of performance of national Veterinary Services in Latin America and several factors help explain why the national services have not progressed more over time. First, the traditional programmes and operating structure for almost all national services are structured around the presence or absence of disease. This philosophy worked well with traditional eradication campaigns but now falls short in meeting international standards and agreements, which increasingly emphasise relative risk, analysis of risk and associated risk factors.

Second, the PVS instrument goes beyond the traditional critical competencies and assesses performance for twenty-seven critical competencies, several of which are an indirect result of globalisation and the development of international commerce, movement of products, people and live animals. Lacking a fundamental shift and reprioritisation of resources at the national level, many countries have tried to stretch existing resources to cover the additional critical competencies required. But this has bumped up against budgetary limitations, which in many cases have not been overcome.

An additional explanation is that the vision and resource allocation have not shifted sufficiently from traditional programmes (carried out almost entirely within the country), to include regional and international activities, which occur beyond the national borders but substantially impact the country’s sanitary status. A growing international agricultural commerce and transport of people requires a more integrated infrastructure and obliges countries to invest a greater portion of resources into actions that occur outside their borders. It also calls for more collaboration with neighbouring countries and alliances with other countries, identifying issues of mutual interest, pursuing regional and hemispheric actions and working more proactively in international forums to help formulate international standards and agreements. Finally, it requires raising awareness within the country and adopting a greater mandate and role than many national services are not presently accustomed to doing or carrying out.

Another explanatory factor is the relative independent mode of operation that has been followed by many of the national Veterinary Services. The traditional emphasis on diseases of production agriculture has allowed national services to maintain a defined stakeholder base largely made up of producers and producer
associations. Success was mostly measured by the presence or absence of disease. Today’s reality is much different. Actions or potential activities can affect international commerce, competitiveness, public health, tourism, food security, biosecurity and the environment. With much more at stake, attention and involvement of other ministries such as commerce, health, environment and external relations is inevitable. Of course this stems from a growing interest on the part of non-traditional groups such as consumers, environmentalists, which are sometimes overlooked by the official services. In short, the benefits or impacts of the actions carried out by the national services are no longer restricted to production agriculture and require a more interdependent mode of operation. The setting of national policies and agendas require taking into account the objectives and impacts on other sectors and building greater consensus and articulation. This entails a different set of skills and abilities to not only provide technical expertise but also exert technical leadership as well.

The final explanation as to why the performance of some countries was not greater is found by looking at the lack of alliances and partnerships in place with the private sector. The high turnover of leadership in the public sector often leads to different objectives and changing agendas from one leader to the next and makes it much more difficult to provide continuity over time. Many of the critical competencies require a concerted and extended effort in order to build and maintain a level of capability that meets the national needs and is defensible within the international arena. Constant changes in personnel, lack of continuity of actions, shifting agendas and objectives eventually work against the country’s ability to build international credibility. Just as the private sector invests in marketing, improved genetics, better feed etc., so also must it invest time and resources in their national services in order to meet current challenges and future opportunities. In countries where the national services have progressed the most, the private sector has provided a level of continuity and sustainability that offsets a sometimes rotating or unstable leadership base. The private sector helps ensure the same agenda will go forward despite turnover or other instabilities. Stronger alliances of the public sector with the private sector do not relinquish the authorities of the official sector in any way, but it does provide closer collaboration and dialogue, helps ensure that critical competencies are executed adequately and enables modernisation of the national services to occur.

USING THE PERFORMANCE, VISION AND STRATEGY INSTRUMENT TO PROMOTE CONTINUAL IMPROVEMENT

In several cases, countries first interpret the PVS instrument as a one-time evaluation tool. Our experience shows that the greatest value of the instrument is in encouraging a culture or process where change can occur over time. The quantitative results provide a simple benchmark, marking where the national services are at a particular point in time. They do not handicap the ability of the national service to continually improve and become better. The PVS process can be active or passive. The passive mode seeks to raise awareness, increases understanding and encourages the formation of a shared vision. The active mode brings the public and private sector together to meet on a consistent basis and uses the instrument and its indicators as a language to identify similarities, explore differences and discuss incremental change. Enabling dialogue and change is perhaps the instrument’s greatest contribution. What becomes apparent over time is that substantial improvement in the national Veterinary Services is possible when a shared vision and commitment towards incremental improvement exists. Countries and stakeholders begin to realise that the potential for improvement is already within their reach. In the best of cases, this leads to a ‘can do’ attitude. Our experience has also shown that when one sector is motivated to improve and implement change but the other sector does share the same level of enthusiasm, commitment for change is sometimes replaced by disengagement and cynicism.

Experience is the best teacher and before engaging in this process, prior preparation of key stakeholders within the country is important to raise interest and awareness and to dispel misconceptions. The perception to the PVS instrument by different people will be variable and highly individual. Some
participants will see the instrument as an evaluation tool, meant to assess and possible punish past performance. Others will see it for what it is – a benchmark to help gauge future improvements. The national Veterinary Services required to meet today’s challenges is far different than the national services of the past. No assumption should be made of the leadership position a person occupies and their level of understanding regarding the vision and critical competencies the national services should contain. For this reason, the passive role of the instrument is so important in order to fill an educational gap and raise awareness.

To avoid a tendency by some to sometimes to over rate performance, repeated emphasis on how the results will be used is important. In practice, the quantitative results remain with the country and emphasis is placed on how to make incremental improvements within each of the critical competencies. Over time, the initial results become obsolete. Efforts are made to stress that the PVS process is not about comparing one country with another, nor is it about looking back, but rather looking ahead, identifying what can be done. Nonetheless, it is wise to anticipate an often unstated concern, especially on the part of the official sector, that these results may be used punitively. This concern usually dissipates in the dialogue and application, yet it is important to emphasise that the overall level of sanitary health within the country is function of the collaboration and actions taken together by both sectors – public and private.

Because of the language used and the way the PVS instrument was prepared, the private sector grasps and comprehends relatively quickly the future vision as to what the national services should contain and the process for bringing about such change. Dialogue between the sectors helps validate the results, which usually involves a reassessment and adjustment process for some of the critical competencies, and several conversations on how to establish a shared commitment to work together and build a better national service. Facilitation of these conversations, particularly at the beginning, is important, but this facilitation should not be confused with the leadership role, especially on the part of the public sector and the chief veterinary officer. These conversations should focus on the current level of the critical competency in question and requirements needed in order to move to the next level. If one sector is ready and willing to commit to certain actions while the other sector remains hesitant, perhaps pending further approval or the inability to take decisions, disengagement can take place.

Finally there is no substitute for commitment and continuity of leadership over time. For the developing countries in the Americas, the perception by many is that the national services have not advanced more due to the lack of resources. There is no doubt that additional investments must be secured and the PVS instrument helps to provide a roadmap where needs are identified so that investments can be made. The instrument and its results provides an overall framework for making this possible and enables Veterinary Services and governments to engage financial institutions and banks and to better prepare grant and loan applications. It also enables officials within the hierarchy of government to more effectively position the national Veterinary Services within the critical priorities of the country. Although financial resources play a necessary role in Veterinary Services moving ahead, they alone do not ensure that change and improvement will come about. Our experience shows that continuity of leadership is arguably the greatest limiting challenge facing national Veterinary Services today.

**FINAL THOUGHTS**

The PVS instrument – and the process it encourages – is proving to be a powerful ally for countries committed to enhancing their national Veterinary Services and are willing to invest their time and effort to make it happen. The quantitative results of the PVS instrument benchmark the current performance of the national services at a particular point in time – they do not predict the country’s potential to continually improve and become better. The PVS instrument is not a panacea or magic bullet. Prior to applying the PVS instrument, time should be invested to educate and prepare the official sector and stakeholders as to
relative roles, expectations, possible uses and benefits. The greatest value of the PVS instrument goes beyond the initial quantitative results and encourages a dialogue and shared commitment by all parties, where incremental results are achieved over time based on commitment to continual improvement. Investments are an important element in the structural improvement of the national services and the instrument helps countries better prepare loan applications and secure financing, but the most important critical factor is the continuity of leadership. Leadership has been the most limiting factor experienced thus far. Finally, the inclusion of the private sector in this process is not only necessary, but enriches the overall process and enables progress to be made more quickly than would otherwise be possible.

References


NEW COMPETENCIES REQUIRED FOR VETERINARIANS, WITH A FOCUS ON INTERNATIONAL CAREERS

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INTRODUCTION

The Livestock Revolution provides a significant opportunity for livestock farmers in the poorer regions to partake in economic activity and may provide a way for many of them to escape poverty. However, for this to occur there is a need for an increase in the quantity and quality of animal products at a local level and for a significant improvement in the livestock sector complying with the rules of the international trade of animals and animal products.

With increasing globalisation, the persistence of TADs anywhere in the world poses a serious risk to the world animal agriculture and food security and jeopardises international trade.

The Veterinary Services plays a central role but in developing countries over the last years they have suffered, in general terms, a loss of operational capacity originated by the economic difficulties that countries are facing. At the same time, many developing countries have signed commercial agreements, regional as well as global, which demand greater responsibility and capacity of these now debilitated structures (1).

The prevention and control of main TADs can be considered as an international public good.

The biological and chemical agents which caused food poisoning are many and varied but they almost all have one feature in common: they accompany the animal from the ‘stable to the table’. For this reason, any attempt to maintain high level of protection of consumers without taking account of what is happening throughout the whole production chain is doomed to failure (2).

In addition to that, a global integrated approach must be considered when addressing the problem of diseases and food safety, taking into account the institutional and economic context, as well as environmental and social dimensions.

This is why new competencies are today required for veterinarians particularly with regard to international careers.

THE CHALLENGE AND WHY NEW COMPETENCIES ARE NEEDED

Since the recent decades, the world have been facing devastating economic losses to livestock farmers from major outbreaks of TADs such as FMD in Europe (3), classical swine fever in the Caribbean and Europe (1996-2002) (4), rinderpest in Africa in the years 1980s (5), peste des petits ruminants in India and Bangladesh (6), contagious bovine pleuropneumonia in Eastern and Southern Africa (late 1990s) (7), as well as Rift Valley fever in the Arabian Peninsula (2000) (8).
Amblyomma variegatum, the tropical bond tick that produce heavy economic loses in Africa, is infecting several islands in the Caribbean region. If the tick enters in the American continent, the economic damage of the tick was evaluated in US$ 1 billion (9).

The last avian influenza crisis in Asia due to the highly pathogenic avian influenza virus in poultry, which spreads rapidly and has mortality in chickens approaching 100%, has resulted in the deaths and the culling of 140 million of poultry. The economic impact of both diseases to the South East Asia was evaluated in more than US$ 60 billion (10).

In the past two to three decades, public health authorities in industrialised countries have been faced with an increasing number of food safety problems. The situation is equally serious in developing countries. In addition to known food borne diseases, public health communities are being challenged by the emergence of new or newly recognised types of food borne illnesses, often with serious health consequences.

Economic losses due to Salmonellosis just in the USA, were calculating in more than US$ 1 billion per year while food borne pathogens such as Campylobacter, E. coli O157:H7 and Listeria, have been producing losses of more than US$ 6.5 billion per year (11).

As a result of the BSE crises, the world suffer an economic loses of more than US$ 10 billion (12, 13).

The globalisation of food (and feed) trade, facilitated by the liberalisation of world trade, while offering many benefits and opportunities, also presents new risks (3). Food, a major trade commodity, is also an important vehicle for transmission of infectious diseases. Because food production, manufacturing, and marketing are now global, infectious agents can be disseminated from the original point of processing and packaging to locations thousands of miles away.

Nowadays, perhaps more than ever, the SPS measures play a role of high-priority in international trade and access to new export markets.

The SPS measures which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health, and presumed to be consistent with the relevant provisions of this Agreement and of General Agreement on Tariffs and Trade 1994.

In assessing the risk to animal or plant life or health and determining the measure to be applied for achieving the appropriate level of SPS protection from such risk, states shall take into account the complexity of the context including socio economic factors and the share of responsibilities between many actors from the public and private sectors. A global vision encompassing animal and public health, food security, trade, development of developing countries and environmental aspects must be followed.

Why new competencies are needed?

In international careers, veterinarians need to deal with animal health and food safety issues: coordination of stakeholders, control and certification, prevention and control strategies, information gathering and dissemination, sectoral and health policies...

Veterinarian experts, particularly the ones coming from the developing countries should better contribute to the elaboration of the trade standards and to the trade negotiations between exporting and importing countries.

But they will also play an important role in influencing policy makers particularly at government and international donor community levels. With better communication skills and strong economical analysis
they have to advocate and to convince decision makers that regional and international animal and human health are international public goods and it is a good investment, for developed as well as developing worlds to prevent and control main transboundary highly contagious animal diseases.

ROLE OF VETERINARY PROFESSION/VETERINARY SERVICES

Successful delivery of veterinary services, which largely takes into account the pressures exerted by major stakeholders, has evolved in many countries to include four essential components. These include:

- a national public service
- a private veterinary sector
- a statutory regulatory or licensing board
- a veterinary professional association.

Each component has different responsibilities and may represent different stakeholders. Ideally the four components interact with checks and balances such that all ‘clients’ are fairly represented. The logic and rational for creation of each component, as well as assigning specific tasks and responsibilities, are based on economic, biological and social principles.

The national veterinary services have a central role and mechanisms need to be developed to enable them to more successfully promote the needs and benefits of TAD control.

Their role in animal health and food safety and quality, with an increased share of responsibilities with other stakeholders, is multiple.

At the international level, animal health activities in which veterinarians will participate are: reporting and disseminating information on sanitary problems, design control strategies and policies for animal health and sanitary safety in food products in the marketing chain.

Veterinarians will also participate to the standard setting process and they will formulate projects for their implementation.

Activities promoting environmental conservation are: coordination of international environment conventions and accords, monitoring and surveillance activities, data collection and dissemination of environmental changes, promotion of sustainable systems of animal agriculture through encouraging sound environmental practices and policies, preservation of the biodiversity.

SKILL GATHERING

There are two categories of skills to be considered:

- professional skills, which are technical capabilities, advance training, specialised expertise or multidisciplinary knowledge. As a veterinarian, there are many areas of postgraduate studies that will complement your basic skills, such as in livestock production (economics, agricultural engineering...), rural development (anthropology, sociology, education, communication), agribusiness (business, marketing, international laws, international relations), disease control (public health, epidemiology, computer sciences, medical geography, microbiology, immunology, statistics), food safety (public health, epidemiology, microbiology, toxicology), pharmaceuticals (pharmacology, physiology, pathology, botany, molecular biology), trade and regulatory activities (international studies and international
relations, administration, mediation), environment (ecology, environmental studies, physical geography, engineering), wildlife medicine and conservation (zoology, ecology, biology, conservation biology, physiology, exotic animal medicine).

In international careers, rural sociology or economics for example will make a veterinarian particularly attractive to rural development in developing countries. Similarly, conservation biology or ecology will strengthen the capacity to work in international conservation organisations.

Educational opportunities for veterinarians are routinely published in specialised websites: veterinary schools, Veterinary Medical Associations.

Electronic learning opportunities on the Internet are becoming increasingly available and offer an excellent opportunity for distance learning.

- The second category of skills are the life skills which may have accumulated in the professional work or from separate facet of the life, such as personnel management, public speaking, technical writing, project management, advocational skills or language proficiency.
- The attitude factor is also important to consider such as flexibility to adapt to a variety of situations including risk or discomfort, fairly high tolerance for cultural traditions. In international work, a professional never works alone. He is involved in an interdisciplinary team and therefore this requires being a team player.

POTENTIAL EMPLOYERS

Numerous types of organisations can potentially hire veterinarians for international work:

- National Government Agencies and Ministries of Foreign Affairs such as United States Agency for International Development (USA), Canadian International Development Agency (Canada), Danish International Development Agency (Denmark), Department for International Development (UK), Deutsche Gesellschaft für Technische Zusammenarbeit (Germany), French Ministry of Foreign Affairs and Agence Française de Développement (France)
- academic institutions such as: Colleges of Veterinary Medicine, policy institutes... working in international affairs
- private industry: pharmaceutical companies, feed and agribusiness firms
- international donor institutions such as: the World Bank, The European Commission, the Development Banks (African Development Bank, Asian Development Bank, Islamic Development Bank, Inter American Development Bank), International Fund for Agricultural Development
- international technical organisations such as: FAO, OIE, WHO, UNDP, UNEP, IAEA, PAHO
- international research organisations such as: the research centres of the Consultative Group for International Agricultural Research or national research organisations such as Centre for International Co-operation in Agronomic Research for Development (Centre de coopération internationale en recherche agronomique pour le développement, France), Centre for Tropical Veterinary Medicine (UK), Natural Research Institute (UK)
- NGOs such as: Farm Africa, VetAid, OXFAM, CARE, AICF and Vétérinaires sans Frontières (France), World Wildlife Fund
- private consulting firms.
REQUIRED COMPETENCIES

Some of the new competencies required for veterinarians, with focus on international careers should be as follows:

a) appropriate knowledge on the principles of surveillance, diagnosis, and control of major animal diseases. Concrete knowledge in planning activities in prevention and control of animal diseases

b) basic knowledge on generic risk analysis framework for TADs, zoonotic and food borne diseases and biosecurity including:
   - identification of hazards,
   - identification and selection of Risk Management Options,
   - generic approach to Risk Assessment principles
   - basic principles of Risk Communication
   - risk communication strategies and implementation plans

c) basic knowledge on geographical information systems and in molecular biology ('pros and cons')

d) basic knowledge in the implementation of ‘Good practices’ such as: Good agricultural practice; Good Veterinary Practice; Good Clinical Practice; Good Emergency Management Practices

e) basic knowledge on the geopolitical and socio economics context in which will develop his activities. Ability to understand basic economic principles at farming and agricultural level; ability to identified the strategies and opportunities for increasing the profitability and sustainability of farmer livelihoods

f) knowledge in the principles of the international agreements that regulated trade of live animals and food; in particular the SPS Agreement which addresses the proper application of food safety, animal health and plant protection rules, as they relate to international agricultural trade

g) ability to understand the global changes and to use integrated multisectoral and multidisciplinary approaches

h) knowledge on the positions of International Standard-setting Organisations and Instruments such as:
   - Codex Alimentarius Commission
   - OIE
   - International Commission for Phytosanitary Measures
   - Convention of Biological Diversity

i) knowledge of the international technical organisations (such as FAO, OIE, WHO, IAEA, UNEP, UNDP...), donor’s institutions (multilateral and bilateral) and international research institutions

j) basic knowledge in biosecurity, biosafety and the relation with the International Agreements and Organizations on Biosecurity and Biosafety issues

k) ability to search information in main virtual libraries and major search engines. Good training in the use of the main software package generally used with personal computers

l) knowledge and ability to use networking methods and tools
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m) capacity to develop effective oral presentations; developed confidence with speaking and communicating to influence the audience; developed competence in designing and delivering high impact presentations. Experience in developing publications and prepare appropriate training materials

n) ability to organise and coordinate scientific meetings, workshops, seminars and training activities

o) basic capacity to have the ability to negotiate with governments, intergovernmental organisations and donors

p) basic social, communication and diplomatic skills to interact with colleagues and Institutions at personal and professional level

q) languages: at least two internationally recognised languages should be managed at working level on any international career.

CONCLUSIONS

Many of the competencies required for veterinarians, with focus on international careers mentioned above, should be included (if not included yet) in the curriculum in Veterinary medicine at graduate level. This is the case of topics such as statistic, surveillance, diagnosis and basic control of animal diseases, good practices and language.

There are other technical aspects such as risk analysis; geographical information systems or positions of international standard-setting organisations that could be address in post graduate studies at Master or PhD level.

Activities at international level, requires a strong sense of social responsibility, a broad mental attitude to address problems/conflicts and to deal with different cultural environments looking for consensus and agreements. Candidates working at international level should have a strong desire to help and assist other people and colleagues. Unfortunately, these are behaviours very difficult to teach at University level. Moreover, the ability to solve problems in a variety of circumstances, and the use of critical thinking to evaluate information, are fundamental skills for an entry-level veterinarian, irrespective of the field of activity. Professionals working at international level must be able to analyse situations; identify and analyse the problems; determine the nature of further information required; critically review information; synthesise and hypothesise, with the goal of developing a further plan of action which is compatible with desired outcomes.

Strong efforts should be put in panels for the selection of international civil servants, taking into account the description of duties and responsibilities, the minimum requirements for the posts and the selection criteria.

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PRIVATE-PUBLIC SECTOR LINKS, INCLUDING OFFICIAL VETERINARY SERVICES, PRIVATE VETERINARIANS, VETERINARY PARA-PROFESSIONALS AND PRODUCERS

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Summary

The 21st Century international and social demands on the veterinary profession demand closer and direct links between official Veterinary Services and private practitioners, especially as far as early detection and surveillance of animal diseases are concerned. Veterinary para-professionals provide essential support services in all such aspects, even more so in rural areas where no veterinarians are available. The involvement of producers of animals and animal products is an integral part in the processes needed to successfully address demands on animal health, food safety, animal welfare and the protection and responsible sustainable use of the environment.

Public demands on the veterinary profession are discussed and recent examples of international pronouncements on the establishment of closer links between the public and private sector are highlighted. In order to address the multitude of demands to the veterinary profession, a number of initiatives have been undertaken, especially in relationship to the quality – and thus the efficacy – of services rendered on all levels and in all fields of the veterinary profession.

The OIE Terrestrial Animal Health Code recommendations regarding fundamental principles regarding quality and the relevant guidelines for evaluating Veterinary Services are briefly discussed, including the recommendations of the OIE Ad hoc on the Role of Private Veterinarians and Veterinary Para-professionals in the Provision of Animal Health Services.

To meet the challenges ahead a holistic approach is needed with clear pathways of communication between official and private stakeholders, with the keywords being collaboration and cooperation within the veterinary profession and with disciplines outside the profession.

INTRODUCTION

The veterinary profession is facing the daunting task to serve the needs and address the demands of the society we are serving – wherever it may be on our globe – which differ vastly from those of the past centuries, where the profession has been most successful in for example the control and eradication of the major infectious diseases of livestock, contributed to highly improved livestock production, was responsible for introducing the concept of meat hygiene at the beginning of the 20th Century and ever increasingly directed its focus on companion animal medicine in its broadest term.

Today’s demands pertain specifically to societal needs such as:

– food safety and public health

– combating emerging or re-emerging diseases, especially zoonoses with the necessary disease surveillance and management of risks
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- food security and animal production to address the ever increasing states of human malnutrition and poverty
- safeguarding biodiversity and addressing environmental management and sustainability
- bio-security and meeting threats of bio-terrorism.

As Veterinary Services are considered to be a global public good, public demands and societal needs in respect of public health and food safety place increasingly higher demands on the service delivery of Veterinary Services. Compliance with international standards for Veterinary Services, such as those contained in the OIE Code, and their evaluation for quality and equivalence will increasingly be public demands at national, regional and international level on all bodies charged with Veterinary Service delivery.

In addition it has been realised in recent years, that there is an urgent need to forge closer relationships and establish linkages between the official and private veterinary sectors in order to effectively and rapidly respond to animal disease and zoonoses outbreaks. Such involvement of the private veterinary sector, as well as an increased role for veterinary paraprofessionals in surveillance, early disease detection and monitoring and rapid response actions require capacity building activities on all levels in order to meet the demands posed.

RECENT DEMANDS ON THE PROFESSION AND ACTIONS TAKEN

In addressing the demands on veterinarians and veterinary para-professionals, it is necessary to take note of international developments in this respect.

Today's mass movement of people, animals and animal products around the globe in extremely short periods of time, less than 24 h, highly increased the threat of outbreaks of trans-boundary animals diseases as well as zoonoses on an unprecedented scale.

Decreased governmental spending on primary health care in humans, neglected animal disease surveillance, monitoring and control and reduced funding for staff employment by veterinary administrations resulted in the re-emergence of previously eradicated diseases.

Until the end of 1980s and before the HIV/AIDS pandemic, a feeling of having won the fight against infectious diseases was evident. So much so that already in 1969 the US Surgeon General W.H. Stewart declared that it was ‘time to close the book on infectious disease (1). However, the ever-growing human population, natural disasters like droughts and floods etc. resulted in drastically increasing levels of poverty and malnutrition, combined with poor public health systems, specifically in developing countries of Africa, Asia and Latin America.

In the past 30 years previously unknown infectious diseases such as HIV/AIDS; Ebola virus infection; Hendra and Nipah virus disease; Hanta virus, E. coli O157: H7; BSE; nvCreutzfelt-Jacob disease; Severe Acute Respiratory Syndrome were discovered and cause high mortalities and severe economic disruptions.

‘Old’ diseases like tuberculosis and malaria re-emerged even in the developed world, often in drug-resistant forms. For instance, a new strain of tuberculosis (strain W), which is multi-drug resistant and occurs more frequently in HIV-infected people, has now been reported in the USA (2).

Apart from the disastrous impact on the livestock industry through e.g. the killing of millions of animals for disease control purposes (FMD in the UK 2001; avian influenza in Asia 2004), outbreaks cause severe trade disruptions through embargos on the export/import of animals and animal products (Rift Valley fever in Kenya/Somalia 1997-1998) and directly impact on tourism (Nipah virus in Malaysia 1999).
Widespread human illnesses have been associated with a variety of foodborne micro-organisms and with food products contaminated with toxic chemicals. Large-scale disruptions of food supplies involving illnesses in and contamination of farm animals have occurred. These outbreaks have resulted in the straining or overwhelming of public services, intense media coverage, and adverse economic, social, and political effects. This apparently inadvertent contamination resulted in the loss of public confidence in the safety of the food supply and reorganisations by governments to improve consumer protection (3).

Public demands in respect of zoonoses are increasingly levelled on official Veterinary Services, nationally and internationally, placing additional financial and administrative burdens on already under-funded public services. A recent meeting of the World Bank (April 2005) (4) acknowledges that emerging zoonoses and pathogens are a global public good concern and that capacity building and strengthening of Veterinary Services in terms of surveillance, the development of rural networks of veterinarians and rapid response capabilities will provide a basis for improved crisis prevention.

Increasingly the veterinary profession becomes involved in creating awareness for the danger of the spread of zoonotic diseases from pet animals. Such public awareness campaigns address preventative as well as control measures through close liaison between the pet owner and veterinarian.

Globalisation of trade led to in-house standard settings by some private commercial enterprises such as fast-food companies. Such standards are viewed by some countries as being used as non-tariff trade barriers, as they exceed OIE standards or are perceived as being used mainly as a marketing tool or for improved public relation exercises directed at the safety-concerned consumer. There is an urgent need to establish professional linkages and create channels of communication and discussion between such organisations in the private sector and those in the public sector tasked with health and safety certification.

More and more veterinary certification is undertaken by authorised (but not official) veterinarians. Clear linkages in respect of auditing and supervision (control of compliance with international standards to ensure acceptance)

**LINKAGES AND INITIATIVES**

During the past decades there has been a distinct change from almost exclusively official Veterinary Service delivery as in the 1960s, especially in the former colonies or in developing countries, to today’s role of auditing and supervision. The to be implemented ‘hygiene package’ requirements of the EU as from 1 January 2006 are a good example as to the future role of official veterinarians and the shift to private veterinarian and owner/producer. Here linkages need to be established, with a clear and transparent pathway of responsibilities and controls.

A number of international bodies and organisations have in recent years recognised the need for assistance and capacity building, specifically in developing countries, to facilitate and improve the international trade in animals and animal products. As part of a collaborative effort and resulting from a declaration made in Doha, the OIE, WHO, FAO, WTO and the World Bank have joined forces and developed the STDF. This Facility aims at facilitating collaboration in enhancing the capacity of developing countries to meet the SPS standards. Efforts undertaken in the framework of this Facility are in direct support of the strengthening of veterinary infrastructures and thereby enhancing the ability to detect and respond to disease incursions, while also enhancing the ability to trade internationally (5).

Very recent examples of international pronouncements on the establishment of closer links between the public and private sector are:
1. The Prime Minister of the Transitional Federal Government of the Republic of Somalia, a veterinarian by training, stated in his address to the 73rd OIE General Assembly on 22 May 2005 that: ‘we realise that the engine of any economy is the private sector…..our priority is to revitalise the public and animal health services building on public-private sector partnerships’.

2. The Regional Coordination Unit for the South-east Asia FMD campaign established a Private Sector Consultative Committee to advice on enhancing private sector involvement and support (6).

3. The OIE Regional Commission for Europe (October 2004) encourages Member countries to establish and strengthen a broad and comprehensive participation of all stakeholders (7) and also encourages Member countries to ‘put in place all necessary measures to maintain or develop a network of veterinary practitioners to assure an efficient on-farm sanitary surveillance, particularly to meet the emerging and re-emerging diseases’ (8).

4. In the same context the OIE Regional Commission for the Americas (November 2004) states that in all countries exists a good reservoir of private veterinary professionals which are not fully engaged, private veterinary professionals should participate in those official veterinary activities which can be delegated and their such actions be promoted (9).

5. In the Guidelines for the responsible and prudent use of antimicrobial agents in veterinary medicine of the OIE Terrestrial Animal Health Code (2005) (Article 3.9.3) it is recommended that the veterinary pharmaceutical industry, wholesale and retail distributors and veterinarians ‘should participate in training programmes focussing on:

   a) information disease prevention and management strategies
   b) the ability of antimicrobials to select for resistance in food-producing animals
   c) the need to observe responsible use recommendations for use of antimicrobial agents in animal husbandry in agreement with the provisions of the marketing organisations’

   and

   Article 3.9.3.6 (6) also recommends that veterinary professional organisations develop for their members species-specific clinical practice guidelines on the responsible use of veterinary antimicrobial products.

**MEETING THE DEMANDS**

The OIE addressed the need to broaden its base for private veterinary participation by concluding with the WVA a collaboration agreement, focusing *inter alia* on the following issues of common interest:

- relationships between ‘non-official’ veterinarians in clinical practice and ‘official’ Veterinary Services
- relationships between veterinary associations and official Veterinary Services
- international guidelines on the use of technicians and para-veterinarians for veterinary certification
- the privatisation of government Veterinary Services.

In order to address these multitude of demands to the veterinary profession, a number of initiatives have been undertaken, especially in relationship to the quality – and thus the efficacy – of services rendered on all levels and in all fields of the veterinary profession. The OIE Terrestrial Animal Health Code recommends that Veterinary Services adopt certain fundamental principles regarding quality and that these standards, with due note of the relevant guidelines for evaluating Veterinary Services, are the foundation on which
importing countries base their confidence in the quality of the Veterinary Services of their trading partners. These demands are thus of increasing importance, especially for those countries who, by controlling animal diseases and strengthening their public and private veterinary sectors, endeavour to reduce poverty, increase cross-boundary market access and address their food security requirements.

As the OIE Code (10) defines Veterinary Services as meaning: ‘the Veterinary Administration, all the Veterinary Authorities and all persons registered or licensed by the veterinary statutory body’, quality of service not only refers to public (governmental) Veterinary Services but also to services rendered by the private veterinary sector.

Meeting demands for quality of Official Veterinary Services

The OIE Code defines an Official Veterinarian as a ‘veterinarian authorised by the Veterinary Administration of the country to perform certain official tasks associated with animal health and/or public health and inspections of commodities and, when appropriate, to certify in conformity with the provisions of Section 1.2. of the Terrestrial Code’.

To address the demands for Quality, the OIE Code recommends (11) that principles such as impartiality, objectivity, sound professional judgement, integrity etc. be complied with. The Veterinary Services should also undertake periodical self-evaluation especially by documenting achievements against goals, and demonstrating the efficiency of their organisational components and resource adequacy.

Meeting demands for quality of private veterinary services

In contrast to the generally well defined responsibilities and functions of Official veterinarians, defined in the OIE Code as ‘veterinarian authorised by the Veterinary Administration of the country to perform certain official tasks associated with animal health and/or public health and inspections of commodities’, veterinarians in the private sector are in general less subjected to rigid services condition. However, in order to properly define such veterinarians, the OIE Code defines such professionals as Veterinarian, being a ‘person registered or licensed to practise veterinary medicine/science in a country by the relevant veterinary statutory body of that country’.

In order to address the demands for quality on veterinarians in the private sector, veterinary professional organisations have taken the lead to formulate protocols and guidelines for quality management systems, based on a Code of Good Veterinary Practice. Such systems are during the start-up phases mostly voluntary, however become compulsory and part of Continuous Professional Development requirements at later stages.

Examples of such implemented quality management systems are:

1. FVE: Code of Good Veterinary Practice, which has been adopted since end 2002 (12) and distributed to all members as a guideline for implementation. The WVA has also accepted this document as a guideline and published the contents thereof on its website for information of the global veterinary profession

2. Royal College of Veterinary Surgeons (UK) ‘Practice Standards Scheme’ (13) which was launched on 1 January 2005 to:
   - establish a quality assurance framework to promote and maintain the highest standard of veterinary care; and
   - to make more information available about veterinary practices, and so give clients greater choice.
Meeting demands for quality of veterinary para-professional services

**Veterinary para-professional** means a person who, for the purposes of the Terrestrial Code., is authorised to carry out certain tasks (dependent upon the category of veterinary para-professional) in a country through a licence from the veterinary statutory body, and delegated to them under the responsibility and direction of a registered or licensed veterinarian. The tasks authorised for each category of veterinary par-professional should be defined by the veterinary statutory body depending on qualifications and training, and according to need.

In countries where there is a limited availability of veterinarians and resources, the effective use of veterinary para-professionals is crucial to effective disease surveillance. However, in order to achieve a standard of service rendering by these persons which is internationally acceptable and found to be equivalent with the provisions of the OIE Code in respect of animal and zoonoses detection, surveillance, control, eradication and prevention, such persons should be subject to licensing/registration procedures as detailed in the definition. Such action would greatly address the needs and demands of, especially rural, livestock farming communities as to the provision of animal health services.

The classification of veterinary para-professional and the definition of services which are to be rendered, differ from country to country. For example in the developed countries the emphasis may fall on veterinary nurses, veterinary food/laboratory technologists etc., whereas in developing countries such persons may be animal health inspectors, community animal health workers, veterinary public health assistants etc.

Meeting demands for quality of veterinary statutory bodies

**Veterinary statutory body** means the autonomous national authority regulating veterinarians and veterinary para-professionals. To complement the evaluation of Veterinary Services, it is necessary to also consider the organisation structure and functioning of the veterinary statutory body. In the evaluation of the veterinary statutory body, the following items may be considered, depending on the purpose of the evaluation:

- human resources, including the composition and representation of the body’s membership
- institutional arrangements, accountability and transparency of decision-making
- sources and management of funding
- functional capabilities, including the ability to enforce its decisions (for example regarding registration requirements, standards of conduct, and disciplinary procedures)
- administration of continuing professional development and education programmes for veterinarians and veterinary para-professionals
- legislative basis, including autonomy.

Meeting demands for public-private veterinary sector linkages

The OIE was requested by its members to address the issue of the use of private veterinarians and veterinary para-professionals by national Veterinary Services and the conditions under which they may be used in order to comply with the OIE international standards on the quality of Veterinary Services and international certification of animals and their products.

In response to these requests, an Ad hoc Group on the Role of Private Veterinarians and Veterinary Para-professionals in the Provision of Animal Health Services (the Ad hoc Group) was formed with the following terms of reference:
to define the functions and responsibilities of private veterinarians and para-professionals in the provision of animal health services; and

– to provide guidelines on the roles, inter-relationships and regulations required to link them with the relevant fields of activities of the Veterinary Services.

To address the demands on the veterinary profession and to enhance the cost effectiveness and efficiency of Veterinary Services, the ad hoc Group stressed the necessity to create and formalise linkages between the Veterinary Administration and stakeholders.

The ad hoc Group made the following observations and recommendations (14):

– it was essential for the Veterinary Administration to find appropriate mechanisms for a transfer of authority to the private veterinarians required for them to fulfil official veterinary activities

– the role of private veterinarians and veterinary para-professionals in the provision of animal health service involves a close relationship with all stakeholders with interests in animal health, animal welfare, veterinary public health and food safety

– this requires a structure whereby there is effective communication between the livestock owner/farmer and the direct provider of Veterinary Services whether a veterinary para-professional or private veterinarian

– at the same time, the epidemiology and surveillance of animal diseases and zoonoses is a national and international issue and therefore there must be close linkages between the above groups in the field and government veterinary resources

– as Veterinary Services move from curative to preventive medicine, the ad hoc Group considered that it was even more critical that Veterinary Administrations develop and implement strategic programmes, such as vaccination programmes, and monitoring and surveillance programmes, utilising the resources of private veterinarians and veterinary para-professionals

– the ad hoc Group was of the view that veterinary bodies such as private/voluntary veterinary associations/organisations should be consulted regarding the involvement of private veterinarians in the provision of animal health services

– as field reports of disease outbreaks are a key component of disease surveillance, the ad hoc Group believed that livestock owners/farmers, veterinary para-professionals and private veterinarians have a key role to play and that this role should be further recognised and developed by Veterinary Administrations.

CONCLUSIONS

To meet the challenges ahead a holistic approach is needed with clear pathways of communication between official and private stakeholders. The keywords are collaboration and cooperation within the veterinary profession and with disciplines outside the profession. The veterinary para-professional, producer and consumer must be all included a system of transparent collective participation.

Efficiently functioning veterinary statutory bodies and veterinary representative organisations (or associations) are very important pillars of links between the public (official) and private veterinary sectors.

References

Section 7 – Schneider


5. Intlforum. tamu.edu/Thiermann.htm


APPENDIX
OIE INITIATIVES TO SUPPORT VETERINARY SERVICES MISSIONS AS AN INTERNATIONAL PUBLIC GOOD

The OIE and its Member Countries recognise that the historical view of veterinarians only being concerned with animal diseases should be broaden and that it is also necessary to focus on public health outcomes, the control of risks along the food chain and to take into consideration the welfare of animals as well.

The OIE considers Veterinary Services to be a Global Public Good and their bringing into line with international standards (structure, organisation, resources, capacities, role of the private sector and the paraprofessionals) as a public investment priority. The official agreement signed by the OIE and the World Bank in 2001 supports this view.

The elaboration of sanitary standards related to animal health, including zoonoses and animal welfare should be undertaken along with improvement of the official Veterinary Services, in terms of ability in early detection, diagnosis and control of animal diseases. To be able to support access of animals and their products to national, regional and international markets, Veterinary Services especially in developing countries, need to improve on the collection and timely dissemination of national data on animal diseases.

The Veterinary Services of developing and transition countries are in urgent need of support to provide them with the necessary resources and capacities that will enable their countries to benefit more fully from the WTO SPS Agreement while at the same time providing greater protection for animal health, animal welfare and public health.

The OIE has undertaken a number of initiatives to support Veterinary Services all over the world:

a) The Memorandum of Understanding signed with the World Bank in 2001 was an important step forward in strengthening the capacity of interested developing countries to meet the common objectives of the two signing organisations, in particular by supporting both public and private veterinary services. This event was also an important step for the recognition of the public and private components of the National Veterinary Services as a ‘Global Public Good’.

b) The STDF which came in direct response to the demand to tailor capacity assistance to the needs of developing and in transition countries, and not to merely provide ‘generic’ assistance. At the WTO Ministerial meeting in Doha, this became one of the major issues and it resulted in substantial commitments made by the WTO, the World Bank OIE, FAO and WHO to respond with focused technical assistance. More specifically, the OIE submitted three different projects to the Facility which were all adopted for a total amount of around US$ 500,000. They address:

– the training of trainers for OIE national representatives (Delegates) and national Veterinary Services
– the new tool for evaluation of Veterinary Services in compliance with OIE international standard of quality
– the strengthening of Veterinary Services in Africa (part of the ALive project)
– specific capacity building activities of the five OIE Regional Representations
THE TRAINING FOR WORLD ORGANISATION FOR ANIMAL HEALTH (OIE) NATIONAL REPRESENTATIVES (DELEGATES) AND NATIONAL VETERINARY SERVICES

Significant needs exist of harmonised training in the action areas of public Veterinary Services, toward application of international agreements and access of animals and their products of various countries to world market.

The common commitment (Doha declaration) of the OIE, the WTO, the World Bank, the FAO and the WHO to join their efforts and means to strengthen the developing countries capacity in order to establish and apply SPS measures, including OIE standards, implies an adapted answer to the needs of these countries agents.

The aim of this project is to prepare high level national veterinary officers for public service management and wide-ranging and progressive careers. It is being carried out by the French National School of Veterinary Services (ENSV) in Lyon which develops numerous partnerships both in France and worldwide with international organisations, reference laboratories, Universities and other high education establishments. The ENSV is the OIE Collaborating Centre for the Training of the National Official Veterinarians.

THE NEW TOOL FOR EVALUATION OF VETERINARY SERVICES USING WORLD ORGANISATION FOR ANIMAL HEALTH (OIE) INTERNATIONAL STANDARDS OF QUALITY AND EVALUATION

National Veterinary Services should always operate based on scientific principles and be technically independent and immune from external pressures. Efforts to strengthen official Veterinary Services require the active participation and investment on the part of both the public and the private sectors.

To assist in this effort, the OIE and the IICA have joined their forces to develop the ‘PVS tool’. It can assist national Veterinary Services to establish their current level of performance, form a shared vision with the private sector, establish priorities and facilitate strategic planning in order to take full advantage of the new opportunities and obligations of globalisation, while avoiding its disadvantages.

At this moment, IICA and OIE are reviewing the instrument and will make minor adjustments to improve clarity and ease in application. The OIE and IICA are in the process of applying the instrument in the Americas, they are also encouraging countries of other regions to consider its application.

This instrument is to be used by OIE Member Countries which may be assisted by an independent facilitator if relevant, in order to carry out a self evaluation procedure of their Veterinary Services and verify their compliance with OIE quality standards.

THE STRENGTHENING OF VETERINARY SERVICES IN AFRICA (ALIVE)

ALive, a World Bank initiative focused on livestock in Africa, aims to map existing programmes and fill gaps between them, and initiate others focused on poverty reduction, economic growth, research, regional and international market access, and sustainable institutions including Veterinary Services.

The creation of the legal framework of the ALive project, provided by the World Bank, represents another step forward in the involvement of the OIE in promoting animal health both for the reduction of poverty and for the safe development of international trade of animals and animal products.
The President of the OIE, Dr A. Niang and the Director General of the OIE, Dr B. Vallat, have respectively been appointed as President of the General Assembly and President of the Executive Committee of the ALive platform. Twenty Regional and International Organisations, including four major donors for a worldwide development already agreed to participate in the programme.

The livestock sector requires greater financial and operational challenges than other agricultural sectors. It needs the public support, advocacy, coordination, and vision which ALive will provide. The various strengths of the ALive stakeholders will result in a higher profile for livestock, better quality investment, improved policies and increased financial support.

Developed countries have a strong incentive to help control ALive diseases because of the danger of these diseases propagating in the rest of the world. ALive, in collaboration with the OIE and the FAO will define the priority list of animal diseases, the control of which should be considered as an international public good by policy makers and donors, but will also encourage national and, especially, regional programmes to tackle diseases which currently do not affect developed countries.

The OIE strongly encourages the dialogue between the donor community and African stakeholders in order to avoid the repetition of crises linked to mistakes in strategies, inappropriate policies and lack of investments in animal health. Investment in animal health should be considered as a priority for its role in reducing poverty in the developing world and eliminating pathogens and diseases which cloud rural economies of developing countries while threaten developed countries.

The OIE is in favour of using ALive model for all regions of the world facing the same concerns.

CAPACITY BUILDING ACTIVITIES OF THE WORLD ORGANISATION FOR ANIMAL HEALTH (OIE) REGIONAL REPRESENTATIONS

The OIE maintains five permanent Representations in the following regions: Africa (Bamako, Mali), the Americas (Buenos Aires, Argentina), Asia-Pacific (Tokyo, Japan), Eastern Europe (Sofia, Bulgaria), and the Middle East (Beyrouth, Lebanon). They report directly to the Director General and to the OIE Regional Commissions of each region.

Established under the responsibility of an OIE Regional Representative, they implement capacity building programmes for Veterinary Services of Member Countries and provide Member Countries with services that are better adapted and in closer proximity, with a view to the strengthening of animal disease surveillance and control within a region at regional and national level.

Each Regional Representation organises between two and four meetings per year for capacity building of Delegates and their collaborators on various topics dealing with the rights and obligations of the OIE Delegates, the structure and quality of National Veterinary Services, the implementation of animal health standards, disease notification, surveillance and control, vaccination, food safety, environmental protection, or any other specific subject regarding OIE mandates.

Furthermore, each Regional Representation manages the regional permanent secretariat of the OIE/FAO steering committees within the GF-TADs.

OIE Regional Commissions and Representations advise and give recommendations to the regional Specialised Organisations for the design and implementation of regional and national programmes. The capacity building component of GF-TADs will be built on the complementary strengths of FAO and OIE. Included in this component are the competences of OIE-FAO Collaborating Centres and Reference Laboratories, with their network of specialists.
Section 8 – Appendix

Technical expertise will be made available to organise and guide in regional and even national training programmes, meetings, workshops for Veterinary Services of Member Countries in every region, as required by the regional needs.