



GLOBALISATION AND CHALLENGES TO VETERINARY EDUCATION

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With Knowledge We Serve



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Introduction

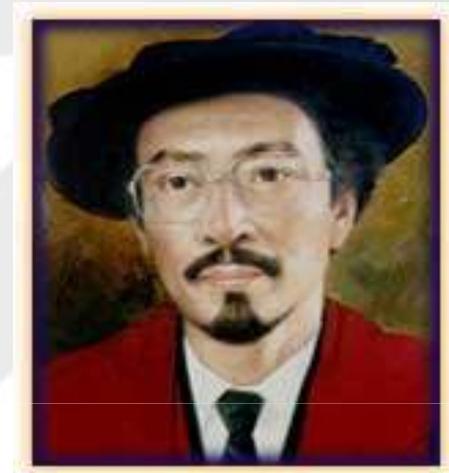
- ❑ The state of Penang was the first state in Malaysia to employ a government veterinary surgeon sometime in 1888
- ❑ In 1920, Y.M. Tengku Abu Bakar of Johore was the first Malay veterinarian to qualify from Western University and the first Chief Animal Husbandry Officer in the country
- ❑ During this period (1900's) the profession was mainly served by veterinary graduates from India, Pakistan, UK, USA, Canada and Australia





Introduction

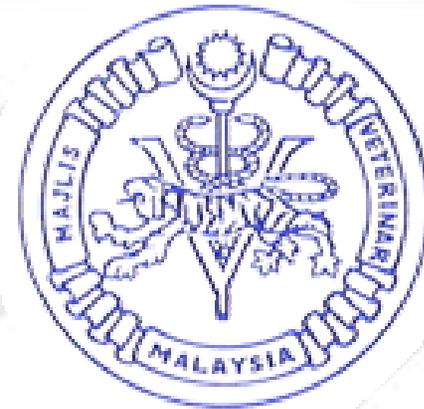
- ❑ The Faculty of Veterinary Medicine and Animal Production (now known as Faculty of Veterinary Medicine) was eventually established as one of the foundation faculties of Universiti Pertanian Malaysia (now known as Universiti Putra Malaysia (UPM)) in 1972 with the first student intakes to enroll Doctor of Veterinary Medicine (DVM) in 1973
- ❑ The first batch of 14 DVM graduated in 1978





Introduction

- ❑ The DVM programme curriculum is based on the British, Canadian, Australian and American system with a balance of medicine (60-70%) and production (20-30%) based on the socio economic status of the country mainly agriculture and agro-based industry
- ❑ Malaysian Veterinary Council (MVC) is the statutory body for accreditation of DVM programme and keeps the register of licensed veterinarians in Malaysia





Introduction

- ❑ Curriculum revision is done every 5 years with feedback from industry, employer surveys, forums with industry, external assessors and examiner and required approval by various committees such as MVC, Advisory Committee, Senate and Ministry of Education
- ❑ In 2009, Faculty of Veterinary Medicine, Universiti Malaysia Kelantan (UMK) was established as the second veterinary school in the country. The first batch of students will be graduated this year (2014)
- ❑ Both DVM programme from UPM and UMK is accredited by MVC. The veterinary education in the country is in a process of transformation to meet challenges in a today borderless world





Veterinary Profession

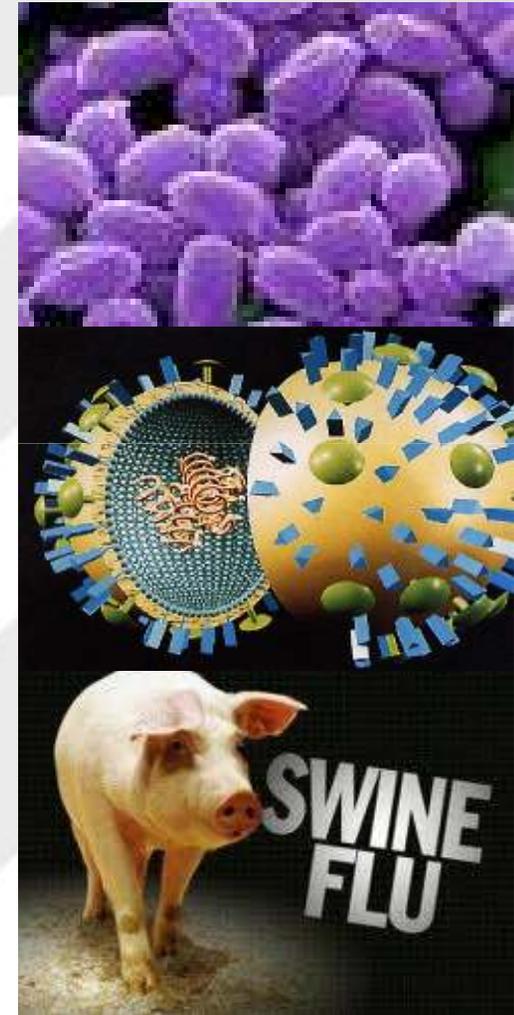
- ❑ Veterinary is the branch of science that deals with the application of medical, surgical, public health, dental, diagnostics and therapeutic principles to various species of animals, big and small, including wildlife, domesticated animals, pets and recreational animals
- ❑ It also deals with pathological conditions in animals and concerns not only with animals, but also contributes to human health through the monitoring and control of zoonotic diseases, and food safety and food security





Veterinary Profession

- ❑ Veterinary profession deals with health and disease in vertebrates, including human. It has comparative medicine as its foundation and serves society as its principal purpose
- ❑ It needs to transform from a traditional clinical approach to one that fully serves society





Veterinary Profession

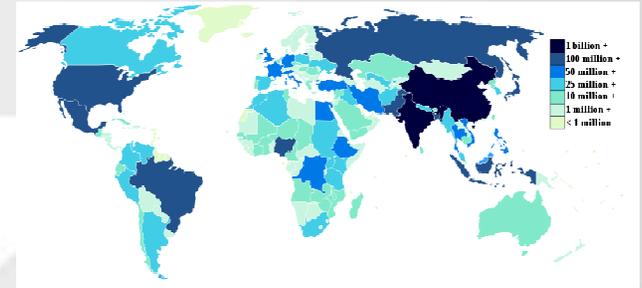
- ❑ In a global world today, the profession may not be able to meet the needs of society and protect the broad career areas until the profession finally face the reality of today's technological and advanced world, and recognize designated licensure as advancement
- ❑ There is a societal expectation that a professional approach is being taken to managing food security and food safety, as well as the environment and biodiversity
- ❑ It is a need to transform or reengineered (if necessary) the veterinary profession from the traditional clinical approach to one that fully serves society





Veterinary Profession

- With the world population continues to grow exponentially, and this growth will put increasing pressure to produce sufficient food in a sustainable way, the veterinary profession needs to address these major problems at the global level
- Every veterinarian must accept the challenge of becoming and remaining competent, making a lifelong commitment to education and committing to remaining competent so as to ensure continued registration to practice as a veterinarian
- While the challenges of the profession certainly are not just the responsibility of the veterinary school alone, it is also the responsibility of the society





Veterinary Profession

- ❑ If the profession does not provide the services that might reasonably be expected of it by society, it is certain that new or existing professions or disciplines will fill the void
- ❑ The profession must review critically that the present culture of the profession, modelled solely on the human medical profession as it is no longer functional
- ❑ The profession can retain the best of the human medical model, but must set it in an independent culture that can embrace all vertebrates in an economic and ethical context that is realistic





Veterinary Profession

- ❑ The reengineering of veterinary profession may be necessary in the near future. Perhaps, it needs to adopt substantive undergraduate tracking rather than postgraduate studies to give it flexibility
- ❑ It relies on educational institutions to create new undergraduate programmes that incorporate new technology and knowledge to meet changing society needs
- ❑ It is unrestrained by a professional licensing process that requires all its practitioners to pass a single standard examination
- ❑ Reengineering of the profession may yet to consider critically in a near future by adopting an educational system that combines substantive undergraduate tracking, compulsory internship and designated licensure





Transformation of Veterinary Education

- ❑ Veterinary education in the country is in a process of transformation to address issues of globalization and changes in scenarios such as one health, biosecurity, bioterrorism, transboundary diseases, exotic animal medicine, economic, entrepreneurship, leadership, information technology, halal, food safety and food security





Transformation of Veterinary Education

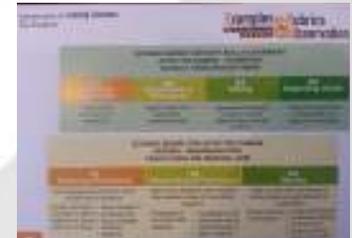
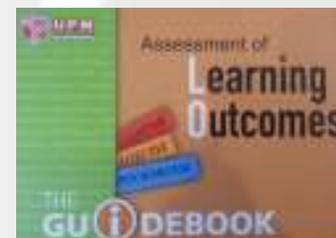
- ❑ Stakeholders expectation such as day one competency, soft skills, communication, global recognition, international accreditation, animal behaviour, welfare, ethics, public education and environment friendly as well as **specialization** such as post graduate, internship, residency, specialists and lifelong learning and continuous professional development are equally important in veterinary education
- ❑ The curriculum is critically reviewed and the veterinary school is prepared for **international accreditation**





Veterinary Curriculum

- ❑ The curriculum emphasis on learning outcomes based on teaching and learning taxonomy: cognitive domain, psychomotor domain, affective domain, social domain and soft skill elements
- ❑ Assessment is by objectives-based evaluation (OBE): that centers on the specification of objectives and the measurement of outcomes, and produce a day-one competency graduate





Veterinary Education

- ❑ The approach in teaching and learning focus on **student centered learning (SCL)** such as problem based learning (PBL), case study, modular approach, project oriented problem based learning (PoPBL), computer assisted learning (CAL) and independent project
- ❑ **Post graduate training** such as Master and PhD programmes, **internship** and **residency** programmes, **specialists** as well as **lifelong learning** and **continuous professional development** are encouraged to the graduate to enhance their competency and meeting the profession challenges globally





Veterinary Education

- ❑ The structure of veterinary curriculum has long been subject to discussion because on the tendency to teach the undergraduates more and apply more pressure on the available time or require an extra semester, or even year to be added to the total course
- ❑ This means extra demands on the undergraduates in terms of the costs of their education and the time required to complete it
- ❑ One can posit that the faculty members have nearly exhausted their options to develop curricula that meet all the needs of the society in the coming years within the present system
- ❑ Not with standing this view, many educators believed on the use of co-curricular programmes to address society needs



Veterinary Education

- ❑ Today, curriculum reform is an ongoing process in most veterinary schools; increasing time devoted to self-learning, reducing formal teaching, increasing practical and extramural services, and introducing electives or options oriented to different animal species and future areas of differentiation
- ❑ In most European veterinary schools, a mandatory core curriculum is being maintained for years 1 to 3, but is now being complemented by elective study paths in years 4 to 6, such as farm animals, veterinary public health, veterinary scientific research, companion animals, and veterinary administration and management often with extensive periods of education that are lecture free



Veterinary Education

- ❑ Veterinary learning does not end with graduation. In fact, learning has only just begun, and it necessarily continues throughout every veterinarian's professional career
- ❑ The need for continuing professional development after graduation is already widely recognized by the existing accrediting bodies
- ❑ Continued registration to practice veterinary medicine already depends on the achievement of prescribed levels of continuing development
- ❑ This requirement will need to be part of the mandate of the global standard



Veterinary Education

- ❑ Reengineering of veterinary education may yet to consider critically in a near future by adopting an educational system that combines substantive undergraduate tracking, compulsory internship and designated licensure
- ❑ In a typically tracking programme, the core-curriculum extended over the first three years and all students study all courses. In the fourth and/or fifth year, an all clinical practice year, students select elective clinical rotations, in order to acquire the breadth and depth of skills and experience for entry into one of several fields of veterinary medicine



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Veterinary Education

- ❑ The undergraduate tracking has some advantages and disadvantages
- ❑ It is belief that undergraduate tracking is not able to retain considerable value in the breadth of the current veterinary degree, with its opportunities for comparative study across the species





Veterinary Education

- ❑ The **internship** programme which provides the opportunity for new graduates to apply their knowledge to clinical problems under supervision
- ❑ Under ideal conditions interns have the time and resources to follow cases, including necropsy, if applicable
- ❑ The learning curve in a one-year internship is very steep. Adequate supervision and mentorship must be provided and the intern must be encouraged to do most of the common procedures independently





Veterinary Education

- ❑ Internship also provide experience with clients, business management, personnel relationships, and continuing education, as well as the chance to build a personnel library, the benefit of interactions with colleagues and the opportunity to develop one's area of professional interest
- ❑ A good year of clinical training would be very beneficial to all veterinary graduates





Veterinary Education

- ❑ The constraints to internships are financial and practical
- ❑ Veterinary graduates are commonly heavily in debt and are reluctant to work for a year at a reduced salary
- ❑ The practical constraint on internship in private practice is the level of supervision that can be provided
- ❑ A major constraint to internship in food animal practice is the lack of a suitable infrastructure for the direct supervision of clinical work on the farm
- ❑ Internship must not replace teaching responsibilities at the undergraduate level





Veterinary Schools

- ❑ There is a significant disparity in universal recognition of the veterinary qualification from veterinary schools between the major blocs of the developed and the developing countries
- ❑ Graduates from veterinary schools in developing countries are not widely recognized, and they and their countries may therefore be at a significant disadvantage



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Veterinary Schools

- ❑ It is urgently needs to develop a long-term strategy toward global recognition of the veterinary qualification
- ❑ There is a society expectation that veterinarians everywhere will all have graduated at the same standard and have the same basic competencies or at least meeting the minimum standard and competencies
- ❑ These competencies must enable the profession to deliver the wide range of expertise and services required today and in the foreseeable future
- ❑ Currently, the dilemma and one of the major challenges that the profession face, is the significant disparity in the quality and recognition of veterinary education around the world



Veterinary Schools

- ❑ A lead must be taken by a global body to develop a long-term strategy toward global recognition of the veterinary qualification
- ❑ Currently, some regional blocs of accreditation operate around the world, and they encompass a significant proportion of the veterinary profession
- ❑ The major accrediting bodies are based in North America, Europe, the United Kingdom and Australasia namely the American Veterinary Medical Association (AVMA), European Association of Establishment for Veterinary Education (EAEVE), Royal College of Veterinary Surgeon (RCVS) and Australian Veterinary Boards Council (AVBC), respectively





Veterinary Schools

- ❑ The World Organization for Animal Health (OIE), based in Paris has recently shown great interest in harmonizing veterinary programme in the world
- ❑ Three OIE global conferences on veterinary education were conducted: first in Paris France in October 2009, second in Lyon, France in 2011 and the third in Foz de Iguazu, Brazil in December 2013. In addition, many meetings were conducted sub-regionally by OIE regional offices





Veterinary Schools

- ❑ In Asia, the establishment of Asian Association of Veterinary School (AAVS) in 2000 and South East Asia Veterinary School (SEAVSA) in 2010 is partly aimed in harmonizing of veterinary school education in the regions by setting of minimum requirement for the veterinary school in the region towards establishment of Regional Veterinary Accreditation Board





Veterinary Schools

- Generally the minimum standard for the accreditation by accreditation bodies in North America, Europe, the United Kingdom and Australasia are about the same which includes organization, finances, facilities and equipment, library and learning resources, animal and related resources, admission and students, curriculum, clinical resources and clinical learning and teaching, academic and support staff, postgraduate training and continuing education, research and outcomes assessment



Veterinary Schools

- ❑ OIE recommended the **OIE day-1 competencies** necessary for the Day 1 veterinary graduate to be adequately prepared to participate in National Veterinary Services at the entry-level namely the specific and advance competencies
- ❑ The **specific competencies** includes epidemiology, transboundary animal diseases, zoonoses (including food borne diseases), emerging and re-emerging diseases, disease prevention and control programmes, food hygiene, veterinary products, animal welfare, veterinary legislation and ethics, general certification procedures and communication skills



Veterinary Schools

- ❑ The **advanced competencies** includes organisation of veterinary services, inspection and certification procedures, management of contagious disease, food hygiene, application of risk analysis, research, international trade framework, and administration and management
- ❑ OIE also developed a programme for veterinary education establishments to enter into a **twinning** arrangement with a parent institution
- ❑ The OIE helps member countries to promote the funding of twinning projects by working with governments, donors and international organizations



Veterinary Schools

- ❑ The admission of student in Malaysian veterinary schools is very competitive and only highly qualified candidate with good academic achievements and high interest in the programme such as first choice for the programme will be successfully enrolled into the programme
- ❑ Currently, only about 100 and 40 places are available for new national student intakes in Faculty of Veterinary Medicine UPM and UMK, respectively, and about 5-10% full-fee international or overseas students which is over and above of the national student intakes





Veterinary Schools

- ❑ Recent trend shows that females dominate the veterinary programme in the country and all around the world
- ❑ Due to the high competitiveness of veterinary programme in the country, many Malaysian enrolled their veterinary programme in the veterinary school in the regions and a few in the west





Veterinary Services

- ❑ The veterinary services in Malaysia is a balance of medicine and production based on the socio economic status of the country mainly agriculture and agro-based industry and meeting the challenges of veterinary profession and services globally.
- ❑ It is indeed, animal production is an important component in veterinary education and services
- ❑ Veterinary service is a global public good and in the front line in reducing poverty, food security, market access, animal welfare, protecting animal health, protecting public health, animal production and food safety





Veterinary Services

- ❑ Initiatives for good governance and veterinary education are under the umbrella of the OIE performance of the veterinary services (PVS) pathway, established in 2006 to support member countries wishing to strengthen their national veterinary services and to comply with OIE quality standards
- ❑ Competition for veterinary jobs will undoubtedly increase if global harmonization yields a high-quality veterinary degree in concert with a “free trade” status for veterinary services
- ❑ Today, the ratio of Americans for every one veterinarian is approximately 5,360:1
- ❑ In Malaysia, the ratio is about 15,000 Malaysian for every one veterinarian





Veterinary Statutory Bodies

- ❑ Ultimate responsibility is vested in the veterinary statutory bodies that accredit veterinary schools, set the standard examination for all new graduates, issue licenses, approve specialty boards and veterinary schools and set practice standards
- ❑ In addition, OIE has recommended that the role of veterinary statutory bodies to include in regulating the activities of veterinary para-professionals and ensuring these activities are ethical and of high quality
- ❑ Quality veterinary education together with effective veterinary statutory bodies are cornerstones of good veterinary governance





Veterinary Statuary Bodies

- ❑ The veterinary profession in Malaysia is governed by the MVC, a body formed under an Act of Parliament i.e. Veterinary Surgeons Act, 1974
- ❑ As other veterinary statutory bodies, the duties of the MVC are to protect, promote and maintain standards in the practice of veterinary medicine
- ❑ The quality and competence veterinary education, veterinary services and good governance in meeting challenges in globalization requires a strong and competence MVC in line with international standards
- ❑ It is timely that MVC should have its own physical structure and perhaps permanent staff in the office





Veterinary Association

- ❑ In the era of globalization, the veterinary association in Malaysia or Veterinary Association Malaysia (VAM) need to transform or reengineer meeting the need of the society and rapid changes in veterinary profession, education and services in line with international standard
- ❑ The association should not progress like other non-professional associations, but VAM is a professional association and should learn from other well established and successful associations globally to excel and provide significant services with high impact to veterinary profession and society





Veterinary Association

- ❑ Currently, the initiative from MVC by giving the roles of VAM to lead or coordinate lifelong learning through continues professional development (CPD) point system as the requirement of the annual practicing certificate (APC) is an excellent move for VAM to strengthen its role in veterinary education and profession
- ❑ Similarly, with the establishment of Malaysian Collage of Veterinary Specialists from MVC leaded by VAM
- ❑ VAM should conduct more activities in ways that best serve the interests of the veterinary profession, veterinary students and society
- ❑ It is timely, that VAM should have its own physical structure and perhaps permanent staff in the office to meet global challenges of the profession





Conclusions

- ❑ The veterinary education in Malaysia is recognised globally and accredited by MVC, and in the process of international accreditation
- ❑ It is in a process of transformation to meet challenges in a today borderless world
- ❑ The profession deals with health and disease in vertebrates including human





Conclusions

- ❑ Veterinary education has comparative medicine as its foundation and serves society as its principal purpose
- ❑ It needs to transform from a traditional clinical approach to one that fully serves society
- ❑ Veterinary education needs to address issues and changes in new scenarios, stakeholders expectation and specialization of the profession
- ❑ Reengineering of the profession may yet to consider critically in a near future by adopting an educational system that combines substantive undergraduate tracking, compulsory internship and designated licensure





- Effective and strong collaboration between veterinary schools, veterinary statutory bodies, veterinary services, veterinary associations and global players in veterinary education is a need to ensure the success of the veterinary profession serves to the society globally

Conclusions





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