

The Challenges of Globalisation for Veterinary Education



Dr. David M. Sherman
dms Sherman@rcn.com

Goals of the OIE Veterinary Education Conference

- Exchange views on the priorities of academic course content in veterinary education
- Reach consensus on recommendations for an updated veterinary curriculum for the international community
- Ensure that veterinary graduates are able to work in an international environment, applying international standards for disease surveillance, veterinary public health, food safety, and animal welfare

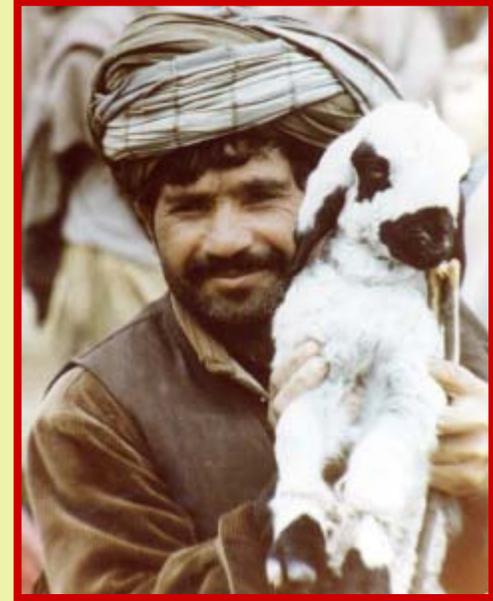
Objectives of this presentation

- Review the major trends of globalisation that are affecting animal, human and environmental health
- Identify specific developments that require the expert attention of veterinarians
- Suggest some ways in which veterinary education can be adapted to prepare graduates to work in a globalised society

Focus on Livestock

- Livestock and Human Society

- Improving livestock production
- Providing animal health care to farmers
- Protecting national herds and flocks
- Control of emerging & zoonotic diseases
- Facilitating trade



- Livestock and the Environment

- Impacts of livestock production on environmental health
- Impacts of environmental perturbation on livestock health
- Promoting sustainable livestock production

Livestock and Livelihoods

- 630 million poor people keep livestock worldwide
- Up to 80% of the population in some countries
- 1.3 billion people work in the livestock sector
- Serve multiple needs
 - Food – dairy, meat, eggs
 - Fiber – clothing, textiles, rugs
 - Manure for fuel and fertilizer
 - Draft power and transport
 - Wealth and capital
 - Culture and religion



The Growing Demand for Food: FAO Report, September, 2009

- 2.3 billion additional people by 2050
- 70% more food production required
- 1 billion tonnes increase in cereals demand
- 200 million tonnes increase in meat demand
- 72% of meat in 2050 will be consumed in developing countries vs. 58% today



Improving Livestock Production

- Engine for economic growth
- Effective entry point for rural development especially for women
- Foster shift from subsistence farming to commercial farming
- Promote more sustainable, small-scale agriculture



Providing Animal Health Care

- An issue of social justice
 - People most in need of veterinary service often have the least access
- Development obligation
 - Beneficiaries at risk
 - Exotic breeds often at greater risk of disease
- Constraints on service
 - Poverty
 - War
 - Geography & infrastructure
 - Transition from command economy
 - Inappropriate service structures
 - Inadequate funding



Protecting National Herds and Flocks

- Regulatory veterinary medicine is a critical element in a nation's veterinary infrastructure
- Control of highly contagious transboundary diseases is essential
- Now more than ever
 - Globalisation of trade
 - Wars and migrations
 - Bioterrorism
 - Reduced budgets
- Capacity for effective regulatory medicine is highly variable among the world's nations

Performance, Vision and Strategy (PVS) *for*

Technical Capability

Human and Financial Capital

Interaction with the Private Sector

Access to Markets

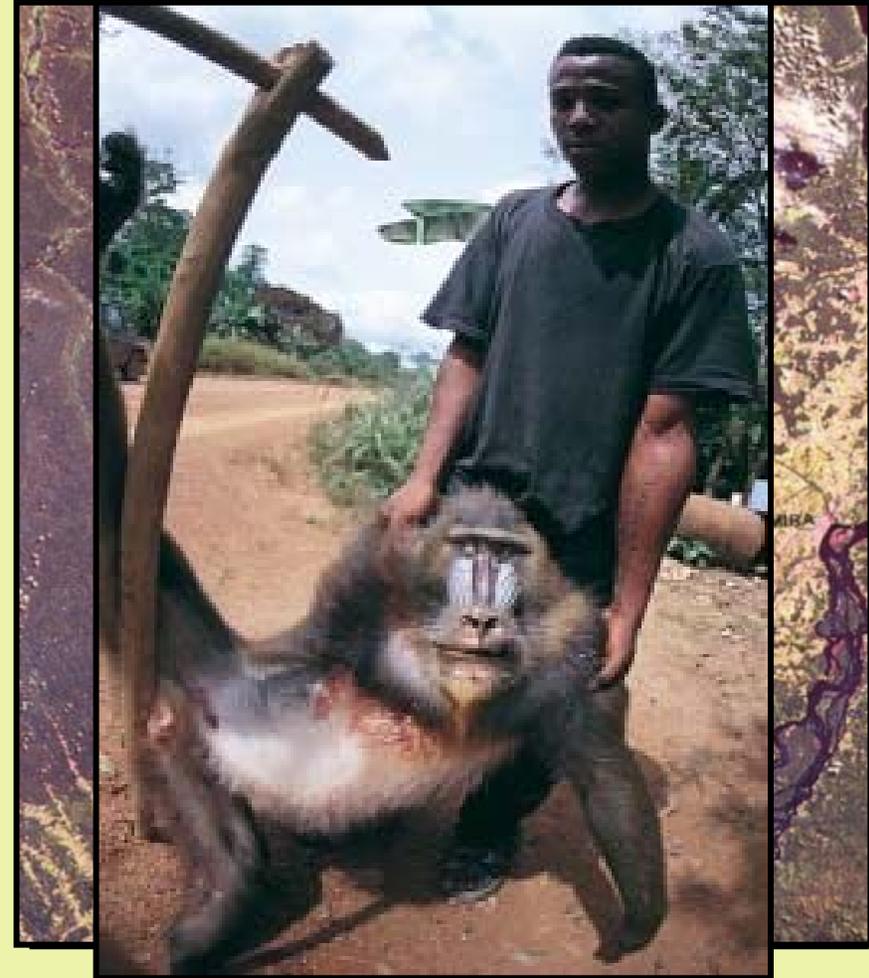
National Veterinary Services

OIE Organisation Mondiale de la Santé Animale / World Organisation for Animal Health / Organización Mundial de Sanidad Animal

IICA Inter-American Institute for Cooperation on Agriculture / Instituto Interamericano de Cooperación para la Agricultura

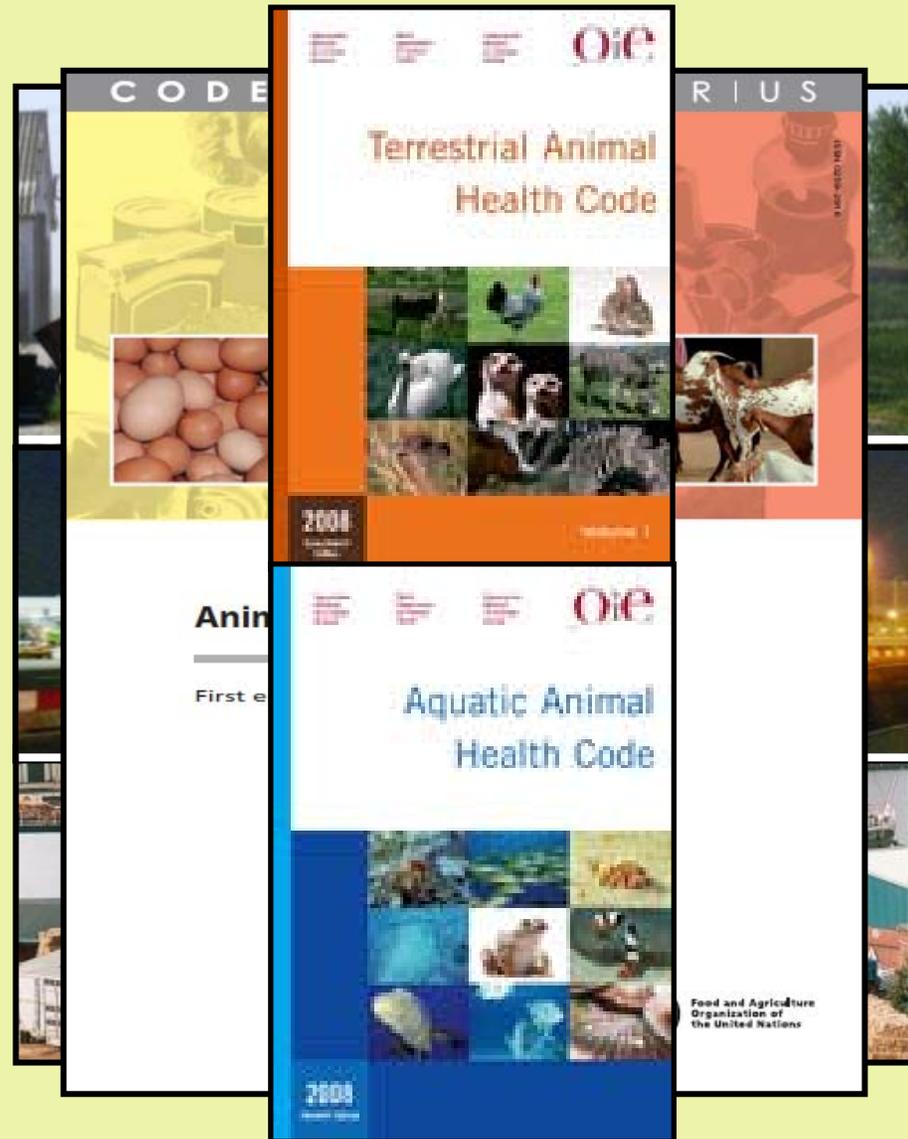
Control of Emerging, Reemerging and Zoonotic Disease

- 73% of 177 emerging human pathogens originate in animals
- Role of veterinarians in control is critical
- Close association of humans and domestic animals in developing countries
- Growing proximity to wild animals due to habitat encroachment



Facilitating Expanded Trade

- Control of livestock and zoonotic disease creates new opportunities for trade
- International trade is an engine for growth
- Trade in livestock and foods of animal origin are especially important to developing countries
- Global cooperation and coordination on standards are essential for fair and safe trade
- WTO - Sanitary and Phytosanitary Measures
 - OIE for trade in livestock and aquatic animals
 - FAO/WHO Codex Alimentarius for trade in food



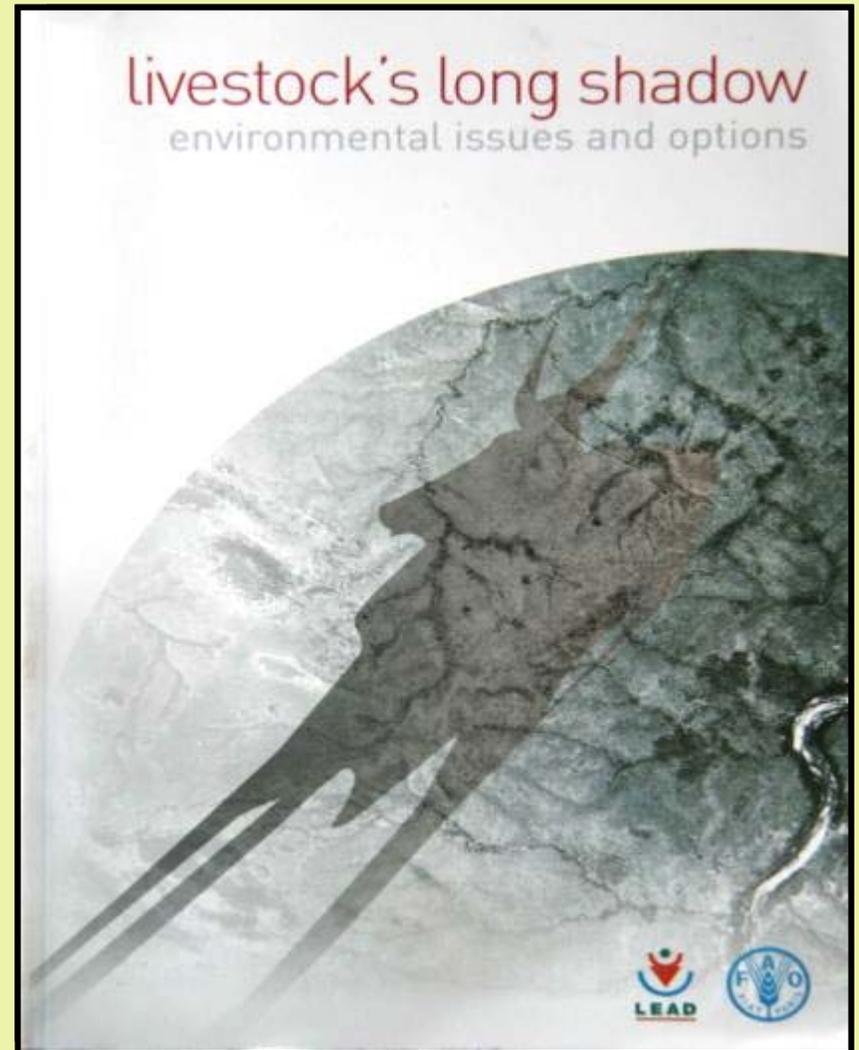
Livestock and the Environment

- Impacts of Livestock Production on Environmental Health
- Impacts of Environmental Perturbation on Human & Animal Health



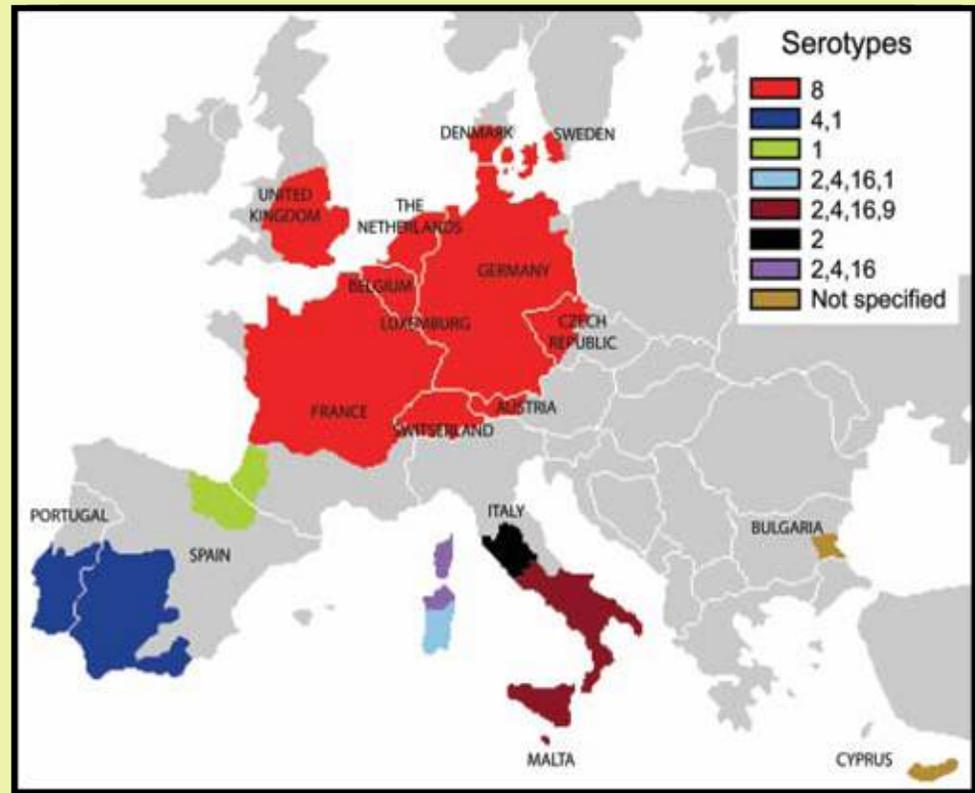
Impacts of Livestock Production on Environmental Health

- Global warming
- Deforestation
- Rangeland degradation
- Water issues
- Loss of biodiversity
- FAO – Livestock's Long Shadow

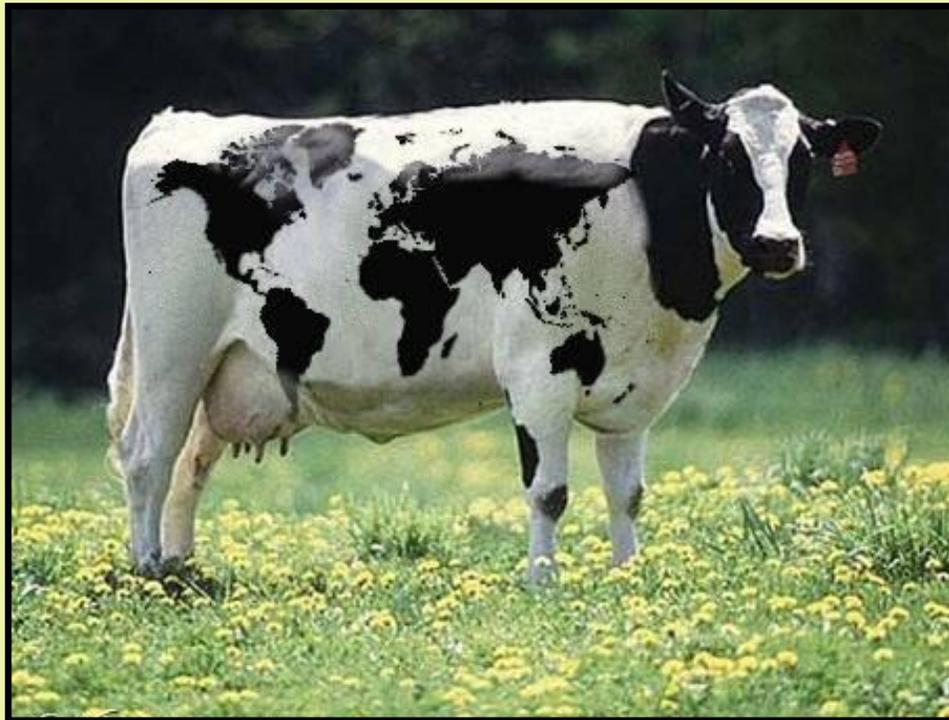


Impacts of Environmental Perturbation on Human & Animal Health

- Climate change
 - Warming temperatures
 - Bluetongue BTV 8 – Europe



There are tremendous opportunities and challenges for veterinarians in the global arena!



Areas of concern

- Provide effective clinical services to farmers
- Monitor and control the spread of infectious disease to protect the food supply and foster international trade
- Ensure food safety
- Protect the public health
- Promote sustainable livestock production practices consistent with environmental health and preservation of biodiversity



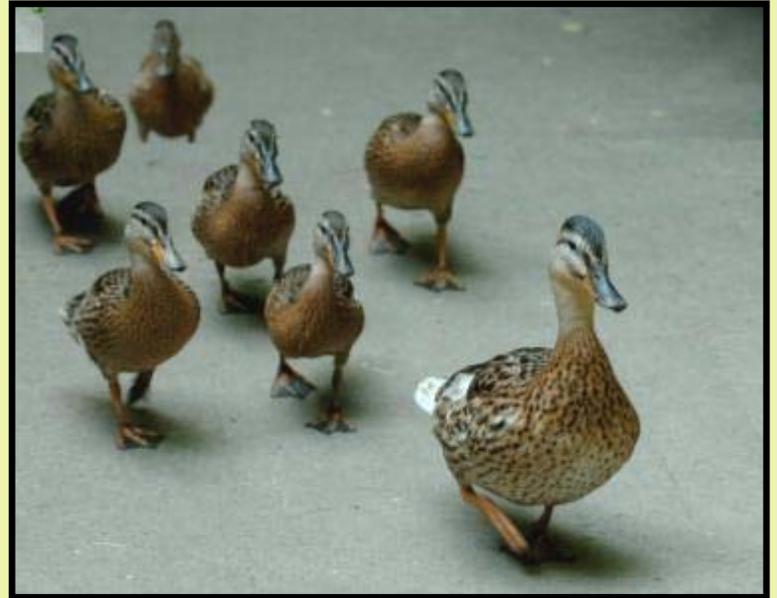
It is the responsibility of
veterinary educators
to prepare veterinarians
to recognize the opportunities
and meet the challenges
of a global society

Recommendations

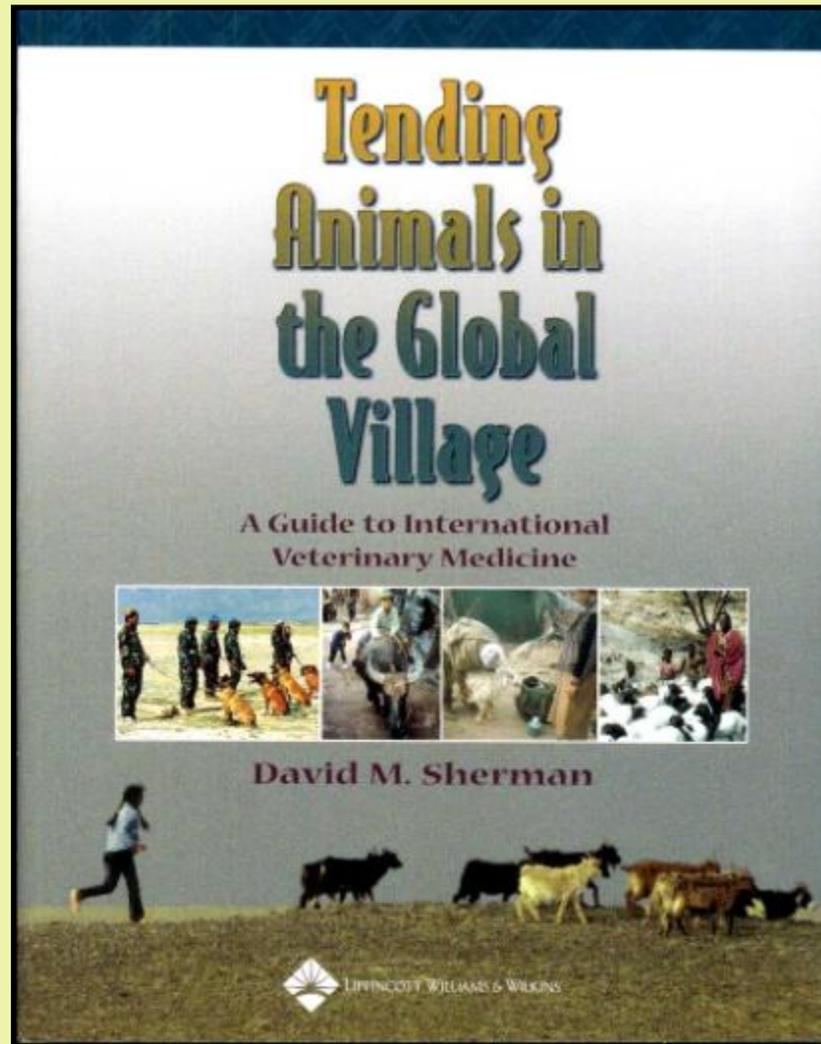
- Recruitment and Admissions
 - Commitment to food animal medicine & clinical service
 - Commitment to public sector career path
 - Incentives
- Core curriculum for public good functions
 - Adequate training in clinical medicine
 - Public health – zoonotic diseases, food safety
 - Epidemiology – disease surveillance, control methods
 - Global issues survey course
- Externship opportunities in the public sector
 - Exposure to public sector workplaces
 - Meet mentors, role models
 - Center for Public and Corporate Veterinary Medicine
 - VA-MD Regional College of Veterinary Medicine

Recommendations

- Interdisciplinary electives
 - Economics, business administration
 - Conservation biology, environmental science
- Graduate training
 - Public health
 - Epidemiology
 - UC-Davis MPVM Program
- Leadership training
 - Policy making
 - Team building
 - Global Initiative for Food Systems Leadership – U of MN
 - <http://foodsystemsleadership.org/>



Thank you



www.wiley.com