Development of the FVE and AVMA Model Curricula for Animal Welfare Science, Ethics and Law

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“Perfect Storm” of Events Reveals a Clear Need for Veterinary Expertise

- **Society**
  - Increased interest in how we use and care for animals
  - General agreement that we want good welfare, but differing opinions about what it looks like
  - Search for trusted experts who can tell us
“Perfect Storm” of Events Reveals a Clear Need for Veterinary Expertise

- **Science**
  - Questions about animals’ welfare have spurned research into how to measure it
  - These multidisciplinary questions require multidisciplinary answers, including from veterinary medicine
  - Veterinarians are on the forefront to advise, educate, and give science-based info
“Perfect Storm” of Events Reveals a Clear Need for Veterinary Expertise

- Policy
  - Demands for improvement lead to voluntary and regulatory standards with performance, ethical, economic, legal and trade implications
  - Veterinary expertise sought to ensure we “get it right”
An Opportunity...

- FVE and AVMA recognize veterinary obligation and opportunity and jointly issue statement on “The Roles of Veterinarians in Ensuring Good Welfare”

- OIE ad hoc Working Group on Veterinary Education recognizes core importance of attention to animal welfare in the delivery of national veterinary services

- North American Veterinary Medical Education Consortium recognizes animal welfare as a key area for educational focus and opportunity
...That Begot a Challenge

- But...FVE and AVMA also recognized gaps
  - Animal welfare education in veterinary schools appears inconsistent or lacking some aspects
  - No cohesive expectations for what should be provided
  - Several previous models, but insufficient uptake
  - Need for repository of resources for faculty

- And set off to address them!
Curriculum Planning Groups Established

<table>
<thead>
<tr>
<th>AVMA</th>
<th>FVE</th>
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<tbody>
<tr>
<td><strong>11 subject matter experts</strong></td>
<td><strong>Involving all European veterinary umbrella associations:</strong></td>
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<tr>
<td>○ 7 US; 4 International (Australia, Scotland, France, Canada)</td>
<td>○ Federation of Veterinarians of Europe (lead)</td>
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<tr>
<td>○ Multiple disciplines</td>
<td>○ European Association of Veterinary Education Establishments</td>
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<tr>
<td>○ Multiple species</td>
<td>○ European Board of Veterinary Education</td>
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<tr>
<td><strong>3 stakeholder representatives</strong></td>
<td><strong>European Research project AWARE</strong></td>
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<td>○ Association of American Veterinary Medical Colleges</td>
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<td>○ Canadian VMA</td>
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<td>○ US Department of Agriculture</td>
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Developing the Curricula: AVMA

- Survey colleges to identify gaps (needs analysis)
  - 62% offer, 92% as core topic, 46% assess knowledge; largely integrated in other instruction
  - Challenges: crowded curricula, qualified instructors
- Formulate a philosophy statement for animal welfare-related instruction
- Describe Day One Competencies (learning objectives), topics
- Seek feedback on recommendations
- Initiate identification of instructional resources
- Prepare final report
- Seek opportunities to facilitate adoption
  - COE standard 9 on curriculum requires accredited colleges to address ethics (f) and the health and wellbeing of animals in the context of changing societal expectations (g)
- Flexible delivery

Photo Washington State University, USA
Developing the Curricula: FVE

- **Map** current level of animal welfare teaching in EU (via AWARE)
  - All EU colleges have some animal welfare teaching
  - Bachelors/Masters levels (10->100hr)
  - 83% compulsory
  - Focus: Ethology, legislation

- Describe **Day One Competencies** (learning objectives), topics, methods

- **Survey** proposed curriculum
  - 93% agreed, 44% delivered, 73% in next 5 years
  - Challenges: Lack of space in curriculum, difficulties for practicums, finance, low priority, Lack of teachers

- **Peer review** final report

- **Adoption** report Veterinary Profession & EU Colleges

- To be inserted in school evaluation system
Assessing Need/Status in Colleges

- **Assessments/Information Sources**
  - FVE, AWARE surveyed 45 European colleges
  - AVMA surveyed 35 colleges in US, Canada, and Caribbean (NA)
  - AVMA, AAVMC international symposium on animal welfare education (2009)
  - North American Veterinary Medical Education Consortium (NAVMEC) “Roadmap for Veterinary Medical Education in the 21st Century”

- **Results**
  - Animal welfare consistently identified as top contemporary issue (82% very important [FVE], 71% very important [AVMA])
  - ~44% have pre-existing courses at some level (undergraduate, veterinary school, graduate) that can deliver competency-related information
  - Demonstration of welfare-related background not required for entrance; veterinary colleges expect to deliver during training
  - Wide variation in core/elective, time spent, and competency assessment
  - Lack and cost of sufficiently trained faculty (NA), crowded curricula
Philosophy on Animal Welfare Education

- Comprehensive, integrated throughout curriculum, adaptable [and clearly identifiable (FVE)]
- Evidence-based, but recognize importance of broader social discussion
- Veterinarian as educator, implementer, and researcher
  - Veterinarians key intermediaries between animals, owners, and public
  - Veterinarians have an opportunity and obligation to provide education that promotes animal care practices that are welfare friendly
  - Veterinarians have a duty to assist in implementing existing standards and must seek continual improvement in standards
  - Veterinarians have an opportunity and obligation to advance animal welfare knowledge through research
Agreed Competencies

- Concepts and analytical frameworks of animal welfare and their practical application
- Evaluation of animal welfare, including understanding the role of measures (objective, subjective, resource-based, animal-based) and the importance of a complete assessment; part of clinical competence for all species
- Ethical frameworks, social contexts, and their application
- The effects of human-animal interactions on animal welfare and performance
- Practical application of assessment methodologies, including monitoring and auditing
- Identification and application of interventions and strategies to improve animal welfare
- Understand and advise others on animal welfare obligations under laws and other public policy
- Familiarity with emerging and contemporary issues
Examples of Topics Related to Competencies

- Animal welfare concepts (body, mind, nature) and frameworks (5 freedoms, 3Rs, ethical matrix)
- Motivation and cognition
- Sentience (pain, emotions)
- Stress (eustress, distress)
- Species-specific behavior of individuals and groups
- Genetic/environmental interactions
- Adaptive capacity
- Techniques for assessment of welfare and risk
- Objective observation and recording
- Communication strategies
- Housing, husbandry, and transport; facility design
- Handling and restraint
- Pain recognition and management
- Humane endpoints and palliative care
- Cultural, religious and political contexts
- Economic and environmental impacts
- Duty of care, “best interests” and ethical dilemmas
- Legal requirements and voluntary obligations
- Contemporary questions and emerging issues

“Many competences tie in with traditional Day-One competencies, e.g. clinical competence and communication, but might require novel inputs.”
Methodology of teaching

- **Who teaches?**
  - Local expertise not always available
  - Opportunity for collaboration with other departments e.g. ethology, animal science, ethics, law

- **Who to teach?**
  - Undergraduates, postgraduates
  - Instructional faculty, researchers

- **All staff, as role models, should continuously improve competence in animal welfare (per theory and application).**

- **Knowledge conveyed needs to be examined to assure competence**
Opportunities Beyond the Scope of Curriculum Project

- Extracurricular education for veterinary students
- Continuing education for graduate veterinarians
- Specialization
What Does Success Look Like?

- Colleges of veterinary medicine recognize animal welfare as critical for the effective delivery of veterinary services, and actively embrace their role to ensure veterinary competence
- Faculty are well-positioned and enthusiastic to educate students and conduct and/or support research

Leading to...
- Veterinarians well-trained and competent in animal welfare
- Veterinarians who effectively educate, inform and influence animal owners to protect and improve animals’ welfare.
- Veterinarians who ensure current expectations and standards are met, and actively work toward continued improvement of animals’ welfare
What Does Success Look Like?

Leading to...

- Veterinary services (governmental, private) that actively integrate welfare assessment as a critical part of clinical problem-solving and best practice
- Sustainable agriculture
- Responsible use of all animals
- Improved animal and human well-being
Thank You to Our Experts

- **Subject experts**
  - L. Lord (Co-chair, USA)
  - S. Millman (Co-chair, USA)
  - L. Carbone (USA)
  - N. Cook (USA)
  - A. Fisher (Australia)
  - D. McKeegan (Scotland)
  - D. Morton (France)
  - E. Pajor (Canada)
  - J. Peralta (USA)
  - S. Robertson (USA)
  - J. Siegford (USA)

- **Stakeholder representatives**
  - P. G. Egrie (USDA)
  - T. Mashima (AAVMC)
  - P. Turner (Canadian VMA)

- **D.B. Morton (Chair, UK)**
- **M. Sant'Ana (Portugal)**
- **F. Ohl (Netherlands)**
- **V. Ilieski (FYROM)**
- **D. Simonin (European Commission)**
- **L. Keeling (Sweden)**
- **A.C. Wöhr (Germany)**
- **B. Zemljic (Slovenia)**
- **D. Neuhaus (Germany)**
- **S. Pesie (Netherlands)**
- **N. de Briyne (Belgium)**

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