



# **North American Veterinary Medical Education Consortium**

## **Meeting 3: Full Report Synthesis Meeting**

**Las Vegas, Nevada  
July 14 – 16, 2010**

<http://www.navmec.org>

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NAVMEC National Meeting #3  
July 14-16, 2010  
Las Vegas, NV

## 1.0 Executive Summary

The North American Veterinary Medical Education Consortium (NAVMEC) was launched in 2009 by the Association of American Veterinary Medical Colleges (AAVMC) “to ensure that veterinary medical education meets the needs of our changing society.” At the Consortium’s first meeting in February 2010, participants explored what society will need from the veterinary profession over the next +/- 10 years, and subsequently defined the foundational veterinary competencies needed to meet those societal needs. They also proposed that, for the NAVMEC initiative to be considered successful, its recommendations should be implemented. At the second meeting in June 2010, eight current and one conceptual Veterinary Education Models were explored to determine how these models, their curricula and delivery methods could be further adapted to meet changing technological, societal and economic conditions. In addition, at the second meeting, the NAVMEC Board advised participants that part of the NAVMEC Final Report would be a recommendation for an implementation plan

200 veterinary professionals and other stakeholders participated at the third and final NAVMEC meeting, which focused on examining and understanding the current accreditation, testing and licensing processes, and synthesizing the information from the first two meetings in the context of moving forward with recommendations to AAVMC for an implementation phase of NAVMEC. Using a combination of stimulus presentations and focused team breakouts, the following four critical areas were analyzed in depth: Core Competencies and Curriculum, Environmental Factors, Accreditation, Testing and Licensure, and Implementation and Change Management. All presentations and speaker credentials are available for download at [www.navmec.org](http://www.navmec.org).

Note: this report is the result of team brainstorming in breakouts; these concepts and ideas will be considered by the NAVMEC Board in preparing recommendations in its final report to AAVMC.

**Core Competencies & Curricula**

During NAVMEC Meeting #1, the core or foundational competencies needed by all veterinary graduates were identified as follows:

1. Multi-species clinical expertise
2. Interpersonal communication and education
3. Collaboration
4. Management (self, team, systems)
5. Public health/One Health
6. Lifelong learning/scholarship
7. Ethical professional leadership
8. Adaptability to changing environments

Additionally, new and emerging issues important to veterinary profession, driven by evolving societal needs, were defined including: competency in a spectrum of digital technologies; knowledge of eco-issues; awareness of ethical topics; increased political engagement; and the integrated skills contemplated in the ‘One Health’ concept.

At the start of NAVMEC Meeting #3, Stimulus presentations were given by Dr. Kate Hodgson on application of the foundational core competencies across the continuum of veterinary profession and Dr. Theresa Bernardo, who spoke on the use of modern technologies including social media, web-conferencing and cloud sourcing. Innovation teams were formed to review and update descriptors of each designated core competency, and to identify new ideas relating to curricular design and delivery. One of the common threads running through the curricular discussion was the need for integration of most of the "non-technical" skills, animal welfare and public health throughout the curriculum at every opportunity. Concepts developed by the teams included:

Multi-species Veterinary Medical Expertise	<ul style="list-style-type: none"> <li>• Possibly rename as ‘Veterinary Medical Proficiency’, teach using comparative techniques</li> <li>• Graduates may be ‘Practice/Career-Ready’, but develop proficiency after graduation</li> <li>• More attention to the use of technology tools for diagnosis</li> </ul>
Interpersonal Communication	<ul style="list-style-type: none"> <li>• Non-technical SKAs to be integrated throughout all years of DVM education</li> <li>• Communications competency to be assessed pre-admission</li> <li>• Research is needed to define reliable assessment techniques</li> <li>• Include challenging issues such as delivering bad news or disclosing errors</li> </ul>
Collaboration	<ul style="list-style-type: none"> <li>• A desirable pre-requisite, but these skills can also be taught to DVMs</li> <li>• Best delivered and assessed using carefully designed team-based activities</li> </ul>

Management (self, team, systems)	<ul style="list-style-type: none"> <li>• Move to combination of didactic learning &amp; practicum/problem-based learning</li> <li>• Seek input from employers on specific skill needs</li> </ul>
Public Health/One Health	<ul style="list-style-type: none"> <li>• Include knowledge of ecosystem health and risk analysis/communications</li> <li>• All areas involved (e.g. parasitology, internal medicine, epidemiology, etc) via case studies</li> <li>• Needs more research on outcomes assessment</li> </ul>
Lifelong Learning/Scholarship/Research	<ul style="list-style-type: none"> <li>• Increased focus on self-directed learning while at CVM (easier to continue)</li> <li>• Provide guidance on broader on-line tools, including social media</li> </ul>
Ethical Professional Leadership	<ul style="list-style-type: none"> <li>• Should Ethics and Professional Leadership be separated in two separate competencies?</li> <li>• Consider using as a pre-requisite, and start integrating into courses in year #1</li> <li>• Use of faculty from other schools on campus, e.g. Law, Business</li> </ul>
Adaptability to Changing Environments	<ul style="list-style-type: none"> <li>• Is this really a separate competency? Should it be incorporated into other competencies – leadership, communications, ethics, lifelong learning?</li> </ul>

### Environmental Factors

The afternoon of Day #1 of NAVMEC #3 was devoted to six 'environmental areas', which had emerged as being of major importance during the previous NAVMEC meetings, and through formal and informal participant feedback. Content experts delivered stimulus presentations and prepared challenge questions for the Breakout activity.

- 1) Dr. Jim Wilson: Student Debt and Starting Salaries- Current ratio is 2:1 debt to salary
- 2) Dr. Phil Nelson: Cost of Veterinary Education to the Institutions- 78-90% of cost of veterinary education is the salaries/benefits of faculty and employees.
- 3) Hilda Mejia Abreu: Admissions Processes and Pre-requisites- Use blended methods for veterinary college admissions: GPA + Standardized Tests + Structured Interviews (i.e. Multiple Mini Interviews)
- 4) Lisa Greenhill: Diversity- 15% of applicants are non-white and 12.2% of students are non-white. There is need for representation and integration into the curriculum.
- 5) Dr. Theresa Bernardo: Delivery Tools and Information Overload- Develop skills in Information Management using Wiki-versity and Wiki-education. Efficient and effective Veterinary Medical Education with strategic use of modern technologies.

Participants then self-selected in breakout groups for an area of individual interest and experience. Examples of concepts developed by each of these teams are:

<p>Cost of Education &amp; Sources of Revenue (2 teams)</p>	<ul style="list-style-type: none"> <li>• Is there a workable model involving centers of emphasis/excellence and/or sharing of course materials so that all CVMs benefit?</li> <li>• Advocate charitable donation status for CVMs, on income tax returns</li> <li>• Coordinated strategic fund-raising, taking advantage of times when public health issues (emergencies) are at the fore</li> <li>• Need comparative research on: costs of distance learning; effectiveness of PR initiatives; institutional partnering in other professions</li> </ul>
<p>Student Debt (2 teams)</p>	<ul style="list-style-type: none"> <li>• DVMs graduate “career-ready”, with tools for producing higher income, e.g. preceptorship during final year (especially for private practice)</li> <li>• Universities agree with students to limit tuition increases during four years of professional program</li> <li>• Restructuring of loan program – debt forgiveness under set criteria(e.g., filling critical vacancies in food supply and safety careers)</li> <li>• Further analysis needed on the viability of a shorter overall length of education for DVMs, including pre-vet</li> </ul>
<p>Admission Pre-Requisites &amp; Processes</p>	<ul style="list-style-type: none"> <li>• Broader criteria; less weight on standardized test/GPA</li> <li>• Select for skills that will generate success within the profession, not just during school environment</li> <li>• Start building evidence regarding relationship between pre-requisites and life success (not just school success)</li> <li>• Standardize: every CVM has the same entry requirements</li> </ul>
<p>Diversity</p>	<ul style="list-style-type: none"> <li>• Include training in cultural competency for faculty/staff/students</li> <li>• Integrate into curriculum through courses/electives/requisites, service projects</li> <li>• Engage students and practitioners in recruitment of more diverse students</li> </ul>
<p>Delivery Methods &amp; Learning Styles</p>	<ul style="list-style-type: none"> <li>• Educating society-ready veterinarians in an outcome-based curriculum in a climate that requires cost reductions is challenging, but imperative</li> <li>• A task force should be formed to consider models for student/adult-centered and self-directed programs that reduce classroom/didactic teaching</li> <li>• A common thread running through the discussion about curriculum is integration of non-technical competencies into all courses</li> </ul>
<p>Information Overload</p>	<ul style="list-style-type: none"> <li>• Teach the things students can’t look up on the Internet, such as describing actual clinical cases of the disease/condition being taught</li> <li>• Teach “information literacy” so students can assess the quality and applicability of what is found in Web searches</li> <li>• Institute a review of licensure testing: is memorizing facts valid in the Internet-era?</li> </ul>

### Accreditation, Testing & Licensure

The second day of this meeting was devoted to accreditation, testing and licensure – in an educational context, and then in a team analysis format. Initially Dr. Jennie Hodgson presented her personal insights on the change requirements at CVMs, based on her analysis of global educational surveys. Then, Drs. Jim Brace & Laurie Jaegar presented excerpts from the new AVMA video on the Council of Education (CoE), which explained the process of determining accreditation standards, the oversight of the US Department of Education, and how standards are changed. Neil Harvison PhD, OTR/L, Director, Accreditation & Academic Affairs, with the American Occupational Therapy Association, discussed the increasing interest and oversight by the federal government into higher education. Dr. Jay Hedrick then provided an overview on state/national testing – how testing is conducted, what is tested, correlation to competencies & societal needs. A new menu-driven NAVLE concept was then presented by Mr. Ralph Johnson and Mr. Mark Cushing. Finally, Dr. John King gave a presentation on the state licensure process, its risks and benefits. At the conclusion of these educational talks, a panel drawn from all 'arms' responded to questions in plenary session.

In the afternoon, participants then self-selected to an area of individual interest and experience. Examples of concepts developed by each of these teams are:

Accreditation (3 teams)	<ul style="list-style-type: none"> <li>All three groups found that most of the NAVMEC competencies were represented in the existing CoE accreditation standards, but recommended that the wording of the standards could be enhanced to help encourage the CVMs to implement the NAVMEC recommendations and that the subjects of animal welfare, wellness, and animal behavior be included in Standard 9: Curriculum.</li> <li>For example, some of the standards had to be interpreted in a specific way to connect with a core competence (e.g. collaboration)</li> <li>Incorporate the NAVMEC competency table directly into the Standards for clarity.</li> </ul>
Testing: Clinical	<ul style="list-style-type: none"> <li>Change 'Practice Ready' to 'Career Ready' and define what it means</li> <li>NAVLE is currently effective in testing knowledge and clinical problem-solving skills for entry-level, private clinical practice in a variety of animal species</li> </ul>
Testing: Public Health	<ul style="list-style-type: none"> <li>All students need exposure to public health, food safety, emergency response, risk assessment, regulatory framework</li> <li>Consider integrating Public Health questions into all aspects of NAVLE</li> </ul>
Testing: SKAs	<ul style="list-style-type: none"> <li>Introduce SKAs to students during orientation, map out the curriculum to show where they will have opportunities to learn about/practice SKAs</li> <li>Portfolio – required, based on self-directed process throughout the curriculum, include logs/diaries/self-assessment, business project</li> </ul>
Licensure (3 teams)	<ul style="list-style-type: none"> <li>Inter-state recognition of licensure - based on Driver's License model</li> <li>Continue with unlimited licensure – enabling career flexibility</li> </ul>

### **Implementation & Change Management**

The final day included a Q&A session with organizational change expert, Dr. John Kotter, and a presentation by Dr. Peter Eyre. Kotter was very emphatic about developing a sense of genuine urgency to overcome complacency and providing effective incentives. Dr. Eyre's presentation described many of the barriers and impediments to change within the veterinary community, while also presenting several ideas about successful implementation. He strongly suggested NAVMEC must be the catalyst for reaching accord among the associations. He sees this as the biggest barrier of all. He closed by emphasizing that even if the "authorities" do agree, the whole package has to be adopted by the deans and faculties or, once more, little will happen.

There is a general feeling among the NAVMEC audience that 'changes are urgently needed', but the reasons for the urgency are quite dispersed, the vision for change is poorly defined, and the changes have yet to be described. Participants expressed the hope that the final NAVMEC report would provide the needed visionary direction and priorities for these changes to the education of future veterinarians.

### **Conclusions**

NAVMEC Meeting #3 demonstrated that while there is consensus among stakeholders that veterinary medicine will need to continue to evolve to meet the needs of a changing society, there are many perspectives on how this should happen. NAVMEC's Board of Directors will meet in Washington at the end of August to create the framework for its report to AAVMC in the context of:

1. Recommendations to ensure that veterinary graduates are able to meet the needs of our changing society for the next 10+ years
2. The flexibility in accreditation, testing & licensure needed to enable implementation of these recommendations to happen
3. An implementation plan for taking action on the approved recommendations

This final report is planned for publication later in 2010.

*Dr. Ken Andrews, NAVMEC Facilitator  
30 September 2010*



## 2.0 Introduction

### 2.1 About NAVMEC

In 2009, the American Association of Veterinary Medical Colleges (AAVMC) launched the North American Veterinary Medical Education Consortium (NAVMEC) “to ensure that veterinary medical education meets the needs of our changing society.”

NAVMEC's overall objective is to develop a “road map for education, accreditation and licensure” that is:

- Responsive to society
- Flexible
- Builds on the strengths of colleges
- Encourages partnering and collaboration among colleges

NAVMEC has spearheaded a consultative process (consisting of three national meetings) to offer stakeholders and beneficiaries of veterinary medical education and other interested parties the opportunity to discuss the skills and competencies needed by tomorrow's veterinarians. Participants have explored new educational models to meet the educational goals identified, and the relationship between education, accreditation, testing and licensure. Each NAVMEC national meeting has had a different focus:

- *Meeting 1 (Las Vegas)*: Identifying the skills and competencies required by veterinarians to meet the emerging and future needs of society.
- *Meeting 2 (Kansas City)*: Evaluating current education models and identifying changed and new models that might better meet the needs of students, practitioners and society in the coming years.
- *Meeting 3 (Las Vegas)*: Exploring how the veterinary education community can work with the accreditation, testing and licensing bodies to meet the profession's goals for the future.

Interest in the NAVMEC process grew with each meeting; close to 400 members of the veterinary medical community participated in one or more of the three meetings, with almost half being academics from North America. The NAVMEC initiative builds on the work and community interest generated by two previous AAVMC projects: the 2008 AAVMC Strategic Plan and the 2007 Foresight Report.

NAVMEC's final report will include a recommendation to the AAVMC Board regarding an implementation plan (NAVMEC 2).

Further information on NAVMEC is available at <http://www.namvec.org>

## ***2.2 A Sense of Urgency – Educating for a Changing Profession***

NAVMEC participants have expressed a sense of urgency for the veterinary medical education system to change to meet growing pressures in the profession in the following areas:

### **Reasons for Change**

- *Better meet changing societal needs (e.g. diversity, technology and digital methodologies, etc)*
- *Graduate students with better business skills so they are productive from Day #1*
- *Address the student debt issue*
- *Increase competencies in core programs (graduates to be better prepared for private/public practice)*
- *Enhance communication skills Identify ways to increase revenues to veterinary medical institutions (e.g. veterinary teaching hospitals)*

## ***2.3 About this Report***

This report summarizes key discussions and findings from NAVMEC's third national meeting held in Las Vegas, July 14 to 16, 2010.

### 3.0 Meeting Overview

NAVMEC Meeting #3 was held in Las Vegas, Nevada, between July 14 and 16, 2010, and featured the active participation of close to 200 representatives of the veterinary medical education and professional community from the United States, Canada, the United Kingdom, the Caribbean and Brazil.

The three-day meeting was a synthesis exercise, bringing together participants' recommendations on societal needs, veterinary competencies, new veterinary educational models and accreditation/licensure standards. Participants worked together to lay the foundation for NAVMEC's recommendations to the AAVMC and a proposed implementation plan.

NAVMEC Meeting #3 consisted of four parts:

#### Day 1: Introductions

- Dr. Bennie Osburn ( NAVMEC Chair) and Dr. Mary Beth Leininger (NAVMEC Project Manager) welcomed participants and thanked AAVMC staff, High Impact Facilitation and NAVMEC's distinguished sponsors for their hard work and dedication in helping make NAVMEC such a success. Dr. Osburn and Dr. Leininger emphasized that the veterinary medical education community is just one part of a larger educational and regulatory system that impacts the profession. Both reminded participants that NAVMEC's success will be determined by our ability to develop solutions with that can encourage collaboration and generate benefits to more than one sector within the system (i.e., students, practitioners, colleges, licensing boards and the general public).

#### Day 1: Core Competencies/Environmental Factors

- Participants heard several stimulus presentations and then worked together in eight innovation teams to refine the NAVMEC eight core competencies (considered fundamental for the future of the veterinary medical profession.) Each group made tangible recommendations on curricula, delivery tools and 'environmental factors' likely to impact implementation, while accounting for the perspectives of both public practice careers and private clinical practice. They also identified areas where further data and/or research may be needed to better inform the community and optimize any recommendations.

#### Day 2: Accreditation, Testing & Licensure

- A series of stimulus presentations and an expert panel provided participants with an overview of the accreditation, testing and licensure systems that currently guide the veterinary medical profession. Building on this information, participants divided into innovation teams for two breakout sessions: 1) addressing specific challenges facing the veterinary medical education system including student debt, education cost, admissions, diversity and information overload; 2) develop specific recommendations regarding accreditation, testing and licensure.

#### Day 3: Implementation

- Participants engaged in a virtual Question and Answer session on change management with Dr. John P. Kotter and heard an overview of past initiatives and the urgency of action now by Dr. Peter Eyre. The meeting concluded with an open discussion regarding a range of implementation ideas.

### 4.0 Scorecard: NAVMEC Educational Models

Dr. Mary Beth Leininger presented the results from NAVMEC Meeting #2 of an informal scoring of the nine remodeled veterinary educational models developed at that meeting. Participants had rated different features of the nine models as they were presented at that time. This scorecard is presented below:

<b>Criteria</b>	<b>Tracking</b>	<b>Non-Tracking</b>	<b>Caribbean</b>	<b>European</b>	<b>Canadian Distrib.</b>	<b>US Distrib.</b>	<b>2 + 2</b>	<b>Veterinary Teaching Hospital</b>	<b>New Concept</b>
<b>Creates graduates with the core competencies identified in National Meeting #1</b>		<b>2<sup>nd</sup> Ranking</b>						<b>1<sup>st</sup> Ranking</b>	
<b>Takes into account diverse learning styles of current and future generations</b>								<b>2<sup>nd</sup> Ranking</b>	<b>1<sup>st</sup> Ranking</b>
<b>Employs innovative learning approaches to deliver the curriculum</b>								<b>2<sup>nd</sup> Ranking</b>	<b>1<sup>st</sup> Ranking</b>
<b>Employs innovative technology to deliver curriculum</b>					<b>2<sup>nd</sup> Ranking</b>				<b>1<sup>st</sup> Ranking</b>
<b>Impacts the total time needed for a student to complete veterinary degree</b>				<b>2<sup>nd</sup> Ranking</b>					<b>1<sup>st</sup> Ranking</b>
<b>Provides incentives so faculty will adopt it</b>			<b>2<sup>nd</sup> Ranking</b>			<b>1<sup>st</sup> Ranking</b>			
<b>Is adaptable to changing societal needs</b>								<b>1<sup>st</sup> Ranking</b>	<b>2<sup>nd</sup> Ranking</b>
<b>Total Average Score</b>	<b>35</b>	<b>38</b>	<b>41</b>	<b>38</b>	<b>42</b>	<b>44</b>	<b>36</b>	<b>41</b>	<b>47</b>

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## 5.0 Stimulus Presentations: Competencies with examples of participant Q&A

All presentations from NAVMEC Meeting #3 are available at the NAVMEC website (Meetings and Reports) at <http://www.navmec.org>

### *5.1 Foundational Veterinary Competencies*

**Dr. Kate Hodgson**  
**Consultant in Continuing Professional Development (Quality Assurance)**  
**College of Veterinarians of Ontario**

*Dr. Hodgson helped to bring participants from the conceptual to the practical, with a presentation that focused on how the competencies concept is currently being integrated into the veterinary medical profession in Canada. Funders are increasingly requiring the educational community to adopt an outcomes orientation. This provides the profession with the opportunity to clarify what it really means to be a veterinarian today and in the future. In Ontario, more than 4,000 practicing veterinarians were surveyed to determine the top attributes of a successful veterinary graduate. Adopting an outcomes approach, the college is now recommending a standardized Multi Mini Interview as part of the admissions process to determine promising candidates. These competencies are then reinforced within the curriculum and in extra-curricular activities. Outcomes are tracked as part of final assessment and beyond. Recognizing that formal education is just the first step in veterinary training, the College is looking at ways to continue to build competencies through lifelong learning. This will help support practicing veterinarians as they adapt to changing societal needs and make choices to reorient or specialize at any time in their careers*

### *5.2 Health Wanted: New Skills and Competencies*

**Dr. Theresa Bernardo**  
**Director, Information Technology and Associate Professor (Epidemiology), Michigan State University**  
**2009/2010 Area Manager, Knowledge Management & Communication/ Pan-American Health Organization & WHO**

*Dr. Bernardo offered a set of real-world examples of virtual teams using social media to build collaborative responses to emergency situations. Drawing on lessons learned from the London bombings (2005), Hurricane Katrina (2005), the PAHO response to H1N1 (2009) and the Haiti earthquake (2010), she showed how tech-savvy volunteers have helped specialists and ordinary people mine databases and pool diverse knowledge (scientific expertise and layman's knowledge) to communicate and coordinate effective, rapid disaster relief in real-time. The explosion of open source platforms, wireless and Web 2.0 applications (e.g. OpenStreet Map, Crisis Commons, OneResponse) opens the door to multi-stakeholder collaboration and the engagement of individuals in the early detection of diseases, emergency prevention and response. These multistakeholder collaborations have the potential to help address global challenges in new and innovative ways, particularly in the fields of human and animal health.*

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Q.	How will this collaboration/information exchange impact the competencies we need to include in the curriculum? (E.g., patients coming in with information)?
A.	Adjusting to the 'digital native' will be crucial. It will require an overall change of attitude. The Internet changes the role of the educated health professional. Clients will be more informed (easier for the younger clients; harder for the older). We need to be open to this. It's not going to replace us as health professionals; it will simply change the nature of our conversations with our clients: less proscriptive and more consultative
Q.	There is a lot of misinformation out there on the Web and our clients perceive this information to be accurate as well as free. There is also increasing expectation for constant availability of healthcare professionals including consultations via the Internet. What is the role of the Internet in a high-quality, functional, profitable private practice?
A.	As veterinarians, we haven't yet been very proactive in using the Internet. We could look at new models, e.g. a behaviorist could set-up a business with a web-cam to provide clients and their animals with coaching. We could look at having a subscription service for health, rather than being paid by piecemeal when patients are ill.
Q.	In the lecture hall, there is no one standing at the back making corrections. With the Internet, our students can instantly fact check and correct us. It's the old adage about knowledge and power. Knowledge is no longer is power. Young people have the information and this threatens our power in academia. But, skills and experience can't be obtained on the Internet. This is what we need to focus on; we need to lead students to the experience.
A.	Agreed. It's not holding knowledge that is powerful; it is sharing that knowledge that is powerful. This is the sea change that we need to pay attention to.

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## 6.0 Breakout Results: Core Competencies and Curricula

Participants were assigned into one of eight innovation teams to review and update descriptors for each designated core competency (identified at NAVMEC Meeting 1), and to identify improvement ideas relating to curricular design and delivery.

### 6.1 Clinical Proficiency<sup>1</sup>

#### Description

*This is the central role in the framework of Core Veterinary Competencies. Veterinarians apply and integrate medical knowledge, clinical skills and professional attitudes into their careers. Veterinary expertise includes knowledge of diverse patient species and their owners and families in the context of the communities in which they interact. Veterinarians are trained to take a comparative approach in which they can apply their knowledge and skills to multiple species.*

#### Key Competencies

- Diagnostic and therapeutic skills, including animal behaviour, wellness, welfare.
- Prevent and treat common health problems.

#### Supporting Competencies

- Demonstrate proficient assessment and management of patient issues. \*
- Establish and maintain clinical knowledge, skills and aptitudes required to meet the needs of the patient and the practice (note: attitudes are important, but belong with other competency). \*
- Make decisions based on best available evidence, past experience and expertise. \*
- Demonstrate proficient use of procedural skills.

\* These skills should be learned in a comparative manner and graduates should have the capacity to transfer these skills in their work from species to species.

#### Improvement Recommendations

- Practice-ready vs. proficiency — graduates need to be ready to practice but they may not be proficient in every area – may have to develop proficiency in some areas after graduation.
- Integrate clinical and basic sciences — bring clinical skills to day 1 education and basic science out to clinical courses.
- Understand application of emerging technologies for Dx & Rx of disease.
- Continually update knowledge of new and emerging diseases – diagnosis and treatment.

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<sup>1</sup> This breakout group changed the title of this core competency from “Multi-Species Clinical Expertise” to “Clinical Proficiency.” They were unsure whether “proficiency” or “competence” would describe the desired goal more appropriately. They also did not think “multi-species” should be in the competency title. However, they did agree that there should be a comparative approach to teaching. Students should learn the basics across multiple species so they can transfer knowledge and skills from one species to another.

- There should be different levels of achievement in this competency – may reach higher level if educated toward specific species.
- Link with communications competency – graduates need to be able to demonstrate confidence in their clinical competencies.

**Notes:**

\* This group deleted a supporting competency that highlighted the need to be able to prioritize professional duties when faced with multiple competing demands. Participants felt this was an important skill, but that it would be more appropriately placed under another competency. The group also noted that attitude is important, but this may be covered by other competencies.

<b>Clinical Proficiency</b>					
<b>Recommended Changes to Curriculum to Optimize Proficiency</b>					
	<b>Competency Detail</b>	<b>Required at Admission? (Y/N)</b>	<b>When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)</b>	<b>How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)</b>	<b>How to Know When the Student is 'Practice Ready' in this Skill? (E.g. continual assessment examination)</b>
1	Proficient assessment & management of patient issues	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Continually</li> <li>• Start Year 1 – Day 1</li> <li>• Interwoven with basic science</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple methods                             <ul style="list-style-type: none"> <li>– Lectures</li> <li>– Problem-based learning</li> <li>– Labs</li> <li>– Experiential –Veterinary Teaching Hospitals, outside rotations</li> <li>– Mentorship</li> <li>– Extracurricular activities</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Continuous assessment</li> <li>• Observational assessment (patient-side or in lab)</li> <li>• Paper cases</li> </ul>
2	Establish, maintain clinical knowledge, skills and aptitudes	<ul style="list-style-type: none"> <li>• No – knowledge &amp; skills</li> <li>• Yes – attitudes should be assessed at admission</li> </ul>	<ul style="list-style-type: none"> <li>• Continually</li> <li>• Start Year 1</li> </ul>	<ul style="list-style-type: none"> <li>• Role models</li> <li>• Lectures</li> <li>• Labs</li> <li>• Problem-based learning</li> <li>• Experiential</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• Observational assessment (continual)</li> </ul>
3	Make decisions based on evidence, experience, expertise	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Continually</li> </ul>	<ul style="list-style-type: none"> <li>• Active learning – student centered</li> </ul>	<ul style="list-style-type: none"> <li>• Observational assessment</li> <li>• OSCEs*</li> <li>• Practical exams</li> <li>• Throughout curriculum</li> </ul>
4	Proficient use of procedural skills	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Continually</li> </ul>	<ul style="list-style-type: none"> <li>• Labs</li> <li>• Experiential – preceptorships, Veterinary Teaching Hospitals</li> </ul>	



5	Prioritize professional duties to deal with multiple demands	<ul style="list-style-type: none"> <li>N/A</li> <li>Management or professional competency</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Other Key Changes Relating to this Competency</b>					
<ul style="list-style-type: none"> <li>Understand application of emerging technologies for diagnosis and treatment</li> </ul>			<ul style="list-style-type: none"> <li>Continually update knowledge of new and emerging diseases – diagnosis &amp; treatment</li> </ul>		
<b>Areas of Uncertainty/Further Data &amp; Research Requirements</b>					
<ul style="list-style-type: none"> <li>Most effective educational methods</li> </ul>			<ul style="list-style-type: none"> <li>Assessment methods</li> </ul>		

**\*OSCE is objective structured clinical examination**

## 6.2 Collaboration

### Description

*Veterinarians cooperate and collaborate with clients, families, producers, healthcare teams, other health professionals, policy makers, educators, the scientific community and other communities to achieve optimal health outcomes. They see themselves contributing to society as part of a community network of healthcare providers in multiple locations. They are skilled in collaborating as team members and team leaders, which is important in a modern multi-professional and multi-cultural environment.*

### Key Competencies

- Work effectively within a healthcare team to achieve optimal patient care.
- Partner with interdisciplinary healthcare providers, policy makers, etc.

### Supporting Competencies

- Participate in collaborative team-based model with consulting health professionals; recognize and respect the diversity of roles, responsibilities and competencies.
- Work effectively as a member of a multi-disciplinary team in the delivery of veterinary services.
- Utilize the principle of team dynamics to enhance team performance (includes having basic knowledge of how teams work).
- Work to manage conflict and employ collaborative negotiation skills.
- Respect differences, misunderstandings and limitations in self and others.
- Demonstrate empathy and use cultural competencies.

<b>Collaboration</b> <b>Recommended Changes to Curriculum – to Optimize Proficiency</b>						
	Competency Detail	Required/Desired at Admission? (Y/N)		When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)	How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)	How to Know When the Student is 'Practice Ready' in this Skill? (E.g. continual assessment, examination)
		Required	Desired			
1	Effectively participate in collaborative, team-based model; respect diversity of roles	• No	• Yes	<ul style="list-style-type: none"> <li>Pre-curricular culture of collaboration</li> <li>Continually within teaching hospitals</li> </ul>	<ul style="list-style-type: none"> <li>Team-based exercises throughout</li> <li>Exercises with entire team</li> </ul>	<ul style="list-style-type: none"> <li>Team projects where the team is graded</li> </ul>
2	Work effectively as a member of a multi-disciplinary vet. team			<ul style="list-style-type: none"> <li>Pre-curricular culture of collaboration</li> <li>Continually within teaching hospitals</li> </ul>	<ul style="list-style-type: none"> <li>Team-based exercises throughout</li> <li>Exercises with entire team</li> </ul>	<ul style="list-style-type: none"> <li>Team projects where the team is graded</li> </ul>
3	Use team dynamics to enhance team performance (as both Leaders/Followers)			<ul style="list-style-type: none"> <li>Teamwork in teaching hospitals enables students to practice</li> </ul>	<ul style="list-style-type: none"> <li>Team-based exercises throughout</li> <li>Exercises with entire team</li> </ul>	<ul style="list-style-type: none"> <li>Team projects where the team is graded</li> </ul>
4	Work to manage conflict & use collaborative negotiation skills to achieve consensus	• No	• Yes	<ul style="list-style-type: none"> <li>Continually</li> <li>Early knowledge (1<sup>st</sup> year, orientation)</li> </ul>	<ul style="list-style-type: none"> <li>Team-based exercise</li> <li>Team is responsible</li> </ul>	<ul style="list-style-type: none"> <li>Team projects where the team is graded</li> </ul>
5	Respect differences, misunderstandings, and limitations, self & others	• Yes	• Yes			<ul style="list-style-type: none"> <li>Team projects where the team is graded</li> </ul>
6	Empathy/cultural competencies	• No	• Yes			
<b>Other Key Changes Relating to this Competency?</b>						
<ul style="list-style-type: none"> <li>Behaviour of collaboration needs to be ingrained in the culture of vet school/faculty</li> <li>Teams need to be formed to allow students to practice this competency</li> <li>Teams should be assessed as a team</li> </ul>						
<b>Areas of Uncertainty/Further Data &amp; Research Requirements</b>						
<ul style="list-style-type: none"> <li>None identified</li> </ul>						

### **6.3 Communications**

#### **Definition**

*Veterinarians enable effective, dynamic interactions and skillful, sensitive, appropriate communications with clients, colleagues, other healthcare professionals and the public. They communicate in various ways and in a variety of settings with the purpose of achieving the best health outcomes/results. They are able to establish and maintain effective communication in the face of cultural differences and challenging situations.*

#### **Key Competencies**

- Facilitate doctor-patient-client relationship.
- Effective interactions with team members, colleagues & community.
- Oral & written communications and use of e-media (social networking).
- Deliver compassionate health care.(requires high level of communication skill)

#### **Supporting Competencies**

- Communicate effectively with clients, producers, lay public, professional colleagues and responsible authorities.
- Develop rapport, trust, and ethical relationship with clients, their families, producers, public, professional colleagues and responsible authorities.
- Accurately elicit and synthesize information from multiple sources.
- Convey effective oral and written information, including reports, case records and therapeutic plans by all necessary means, including electronic, to clients, colleagues, public and media.
- Effectively address challenging communication issues such as delivering bad news or disclosing errors or adverse events. Manage conflict through negotiation.

#### **Improvement Recommendations**

- Add life and clinical skills that can be taught.
  - Include dealing with 'emotionally charged' situations.
  - Cover written, verbal and non-verbal communications.
  - Foster ability to confidently communicate in the face of uncertainty.
-

<b>Communications</b>					
<b>Recommended Changes to Curriculum – to Optimize Proficiency</b>					
	<b>Competency Detail</b>	<b>Required at Admission? (Y/N)</b>	<b>When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)</b>	<b>How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)</b>	<b>How to Know When the Student is 'Practice Ready' in this Skill? (E.g. continual assessment examination)</b>
1	Communicate effectively with clients, producers, public etc.	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Minimal Competency</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrably at each year</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple avenues to path</li> </ul>	<ul style="list-style-type: none"> <li>• Face-to-face should be required for practice</li> </ul>
2	Develop rapport, trust and ethical relationship with clients, public etc.	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrably at each year</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple avenues to path</li> </ul>	
3	Accurately elicit and synthesize information from multiple sources	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrably at each year</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple avenues to path</li> </ul>	
4	Convey effective oral and written info to clients, colleagues etc.	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrably at each year</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple avenues to path</li> </ul>	
5	Address challenging communication issues; manage conflict	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrably at each year</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple avenues to path</li> </ul>	
<b>Other Key Changes Relating to this Competency</b>					
<ul style="list-style-type: none"> <li>• Minimal competency levels in communication should be required for a) admission to vet school b) performance reviews of faculty c) tenure decisions</li> </ul>			<ul style="list-style-type: none"> <li>• Communication skills are teachable and should be taught during each year of professional training</li> <li>• States should have explicit CE requirements regarding communication skills</li> <li>• Successful face-to-face assessments of communication skills need to be a pre-requisite for practicing vet medicine (included in NAVLE testing?)</li> </ul>		
<b>Areas of Uncertainty/Further Data &amp; Research Requirements</b>					
<ul style="list-style-type: none"> <li>• Standardize assessment to create minimal standards &amp; expectations of improvement</li> </ul>			<ul style="list-style-type: none"> <li>• Assessment of minimal skills, increasing skills</li> <li>• Defining 'practice ready'</li> </ul>		

## **6.4 Management (Self, Team, Systems)**

### **Description**

*Veterinarians are integral participants in the veterinary service decision-making process. They require the ability to prioritize, coordinate, effectively make choices and execute tasks to function as a manager in their veterinary roles – as well as to balance their personal lives and careers.*

### **Key Competencies**

- Efficient operation of business; financial literacy.
- Resource allocation, delegation, prioritization & investment decisions.

### **Supporting Competencies**

- Understand basic business/practice management principles.
- Manage practice/business effectively including finances, human resources, etc.
- Set priorities and manage time to balance practice/business requirements, outside activities, and personal life.
- Serve in administrative and leadership roles as appropriate; contribute to policy development.
- Be responsible concerning employment, health and safety regulations and public liability (health and safety requirements and local risk factors).
- Understand systemic quality process evaluation and implement continuous quality improvement within own work environment.

### **Improvement Recommendations**

- Reorient the language of the competencies toward “understanding of principles.”
-

<b>Management</b>					
<b>Recommended Changes to Curriculum – to Optimize Proficiency</b>					
	<b>Competency Detail</b>	<b>Required at Admission? (Y/N)</b>	<b>When During the Curriculum should this Knowledge be Best Acquired? (E.g. Continually, Year #3)</b>	<b>How are these Skills Best Delivered to Students? (E.g. Lecture, Mentor, Practical, Self-study)</b>	<b>How to Know When the Student is 'Practice Ready' in this Skill? (E.g. Continual Assessment, Examination)</b>
1	Understand importance of teams, administration and leadership roles; contribute to policy	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>Continual</li> </ul>	<ul style="list-style-type: none"> <li>Integrated lecture/problem-based learning</li> <li>Co-curricular program</li> </ul>	<ul style="list-style-type: none"> <li>Continual assessment &amp; examination</li> </ul>
2	Ability to set priorities & manage time to balance practice/business/personal	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>Continual</li> </ul>	<ul style="list-style-type: none"> <li>Mentor</li> </ul>	<ul style="list-style-type: none"> <li>Continual assessment &amp; examination</li> </ul>
3	Manage practice/business effectively including finances, HR etc.	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>Continual</li> <li>Special emphasis for years 3 &amp; 4</li> </ul>	<ul style="list-style-type: none"> <li>Didactic learning &amp; practicum/problem-based learning</li> </ul>	<ul style="list-style-type: none"> <li>Continual assessment &amp; examination</li> </ul>
4	Understand quality evaluation & implement continuous improvement principles	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>Continual</li> </ul>	<ul style="list-style-type: none"> <li>Integrated lecture/problem-based learning</li> <li>Co-curricular program</li> </ul>	<ul style="list-style-type: none"> <li>Continual assessment &amp; examination</li> </ul>
5	Understand responsibilities re: employment and health and safety regulations etc.	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>Continual</li> <li>Special emphasis for years 3 &amp; 4</li> </ul>	<ul style="list-style-type: none"> <li>Didactic learning &amp; practical/problem-based learning</li> </ul>	<ul style="list-style-type: none"> <li>Continual assessment &amp; examination</li> </ul>
<b>Other Key Changes Relating to this Competency</b>					
<ul style="list-style-type: none"> <li>Don't put up roadblocks for admission to school</li> </ul>			<ul style="list-style-type: none"> <li>Full curriculum infusion (integrated)</li> <li>Reorient existing coursework</li> </ul>		
<b>Areas of Uncertainty/Further Data/Research Requirements</b>					
<ul style="list-style-type: none"> <li>Need data on how to defensibly assess "management" competencies</li> <li>Ethics of management</li> </ul>			<ul style="list-style-type: none"> <li>Survey employers for info on grads with concrete management training – are they better?</li> </ul>		

## ***6.5 Public Health/One Health Promoter***

### **Description**

*Veterinarians responsibly use their expertise and influence to advance the health and welfare of animals, people, their communities and the environment. They recognize their duty and ability to improve the overall health of animals and the society they serve. They identify and participate in advocacy activities as important for individual animals, patient populations, and society through health promotion and disease risk management.*

### **Key Competencies**

- Prevent, diagnose & control infectious anthroozoonoses.
- Knowledge of food safety and security.
- Understanding/knowledge/skills to engage in the political/regulatory process and advocacy for the broad role of veterinarians in health..

### **Supporting Competencies**

- Promote the health and welfare of individual patients, communities and populations.
- Identify opportunities for advocacy, health promotion and disease prevention in the community and engage appropriately.
- Promote the human health benefits of animals within the family, including the strength of the human/animal bond.
- Advocate for individual patients around relevant health and welfare matters.
- Appropriately collaborate with human health care professionals to ensure the health of animals, humans and the environment; practice One Health

### **Improvement Recommendations**

- Knowledge of ecosystem health.
  - Knowledge of risk assessment, analysis and communications.
-

Public Health – One Health					
Recommended Changes to Curriculum – to Optimize Proficiency					
	Competency Detail	Required at Admission? (Y/N)	When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)	How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)	How to Know When the Student is 'Profession/Society Ready' in this Skill? (E.g. continual assessment, examination)
1	Advocate/promote the health and welfare of individual patients, community etc.	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Attitude need to be present</li> </ul>	<ul style="list-style-type: none"> <li>• Continual</li> </ul>	<ul style="list-style-type: none"> <li>• All of the above</li> </ul>	<ul style="list-style-type: none"> <li>• Learning objectives assessment/ application</li> </ul>
2	Identify opportunities for health promotion and disease prevention	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Continual</li> </ul>	<ul style="list-style-type: none"> <li>• All of the above</li> </ul>	<ul style="list-style-type: none"> <li>• Learning objectives assessment/</li> </ul>
3	Promote human health and society benefits of animals	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Continual</li> </ul>	<ul style="list-style-type: none"> <li>• All of the above</li> </ul>	<ul style="list-style-type: none"> <li>• Learning objectives assessment/ application</li> </ul>
4	Collaborate with health care professionals & practice One Health, etc.	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Continual</li> </ul>	<ul style="list-style-type: none"> <li>• All of the above</li> </ul>	<ul style="list-style-type: none"> <li>• Learning objectives assessment/ application</li> </ul>
Other Key Changes Relating to this Competency					
<ul style="list-style-type: none"> <li>• Ecosystem</li> <li>• Define Global health</li> <li>• One health encompasses global health</li> </ul>		<ul style="list-style-type: none"> <li>• Elevated in the curriculum (continual)</li> <li>• All involved (e.g. parasitologist, internal medicine, etc) via case base learning</li> <li>• Risk assessment &amp; communication</li> <li>• Develop learning objectives and curriculum mapping assessment</li> </ul>			
Areas of Uncertainty/Further Data & Research Requirements					
<ul style="list-style-type: none"> <li>• Collect data on teaching &amp; testing faculty/CVM outcomes</li> </ul>					
What's New?					
<ul style="list-style-type: none"> <li>• Continuous incorporation &amp; assessment of competency/skill</li> </ul>					



## 6.6 Lifelong Learning

### Description

*Veterinarians demonstrate a lifelong commitment to reflective learning by engaging in ongoing professional development, as well as participate in the creation, dissemination, and translation of knowledge. They engage daily in answering questions that arise in daily life and strive to adapt and increase their knowledge, skills, and judgment. As professionals, they will remain current in their knowledge and skills, and will educate students, clients, colleagues and the public.*

### Key Competencies

- Critical thinking, problem solving & intellectual curiosity.
- Invest in self-directed learning to develop and expand competencies.

### Supporting Competencies

- Maintain and improve professional activities through ongoing learning.
  - Critically evaluate information and its sources.
  - Develop a capacity for self-audit and willingness to participate in the peer-review process.
  - Demonstrate a commitment to maintain professional competence in response to developing scientific fields and professional demands.
  - Contribute to the creation, dissemination, application, and translation of new knowledge within the veterinary profession.

Lifelong Learning Recommended Changes to Curriculum – to Optimize Proficiency					
	Competency Detail	Required at Admission? (Y/N)	When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)	How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)	How to Know When the Student is 'Practice Ready' in this Skill? (E.g. continuous assessment, examination)
1	Maintain and enhance professional activities through ongoing learning	• No	• Continuous	<ul style="list-style-type: none"> <li>• Extra-curricular training log</li> <li>• Integrate via problem-solving</li> </ul>	<ul style="list-style-type: none"> <li>• Meet expectations of rubric</li> </ul>
2	Critically evaluate information and its sources	• Multiple Mini Interviews, e.g. Guelph and Calgary	• Year 1	<ul style="list-style-type: none"> <li>• Lecture, then practice</li> <li>• Evidence-based medicine</li> </ul>	<ul style="list-style-type: none"> <li>• Exercise-tested</li> </ul>

<b>Lifelong Learning</b>					
<b>Recommended Changes to Curriculum – to Optimize Proficiency</b>					
3	Develop a capacity for self-audit & participate in peer-review process	<ul style="list-style-type: none"> <li>No – because difficult</li> <li>Y – future goal</li> </ul>	<ul style="list-style-type: none"> <li>Start early</li> <li>Year 1</li> <li>Lots of reinforcement &amp; keeping a log of extra-curricular activities</li> </ul>	<ul style="list-style-type: none"> <li>Lecture, then practice</li> <li>Evidence-based medicine</li> </ul>	<ul style="list-style-type: none"> <li>Structured and supervised</li> <li>Peer-assessment</li> </ul>
4	Demonstrate a commitment to maintain professional competence	<ul style="list-style-type: none"> <li>No</li> </ul>	<ul style="list-style-type: none"> <li>Year 3 and 4</li> </ul>	<ul style="list-style-type: none"> <li>Modeling/mentoring by faculty</li> <li>Set clear expectations</li> </ul>	<ul style="list-style-type: none"> <li>Meet expectations</li> </ul>
5	Contribute to the creation, application, of new knowledge	<ul style="list-style-type: none"> <li>No</li> <li>But valued Yes</li> </ul>	<ul style="list-style-type: none"> <li>Year 3 and 4</li> </ul>	<ul style="list-style-type: none"> <li>Experiential</li> </ul>	<ul style="list-style-type: none"> <li>Product assessment</li> </ul>
<b>Other Key Changes Relating to this Competency?</b>					
<ul style="list-style-type: none"> <li>Increase self-directed learning (preferred)</li> </ul>			<ul style="list-style-type: none"> <li>Technology – interactive, digital, Web-based</li> <li>Communications</li> </ul>		
<b>Areas of Uncertainty/Further Requirements for Data &amp; Research</b>					
<ul style="list-style-type: none"> <li>Assessment tools</li> </ul>			<ul style="list-style-type: none"> <li>Refer to Carnegie Report for potential insights</li> </ul>		

## ***6.7 Ethical Professional Leadership***

### **Definition**

*Veterinarians are committed to the health and welfare of their patients and to the protection of human health through ethical practice, professional self-regulation and high personal standards of behavior and practice. They are guided by a code of ethics and a commitment to professional competence, appropriate attitudes and behaviors, integrity, personal well-being and the public good.*

### **Key Competencies**

- Committed to health & welfare of patients.
- Protection of human health through ethical practice.
- Considered to be leaders in the community; media-savvy.
- Volunteer to be spokesperson.

### **Supporting Competencies**

- Demonstrate commitment to patients, the profession, and society through ethical practice behaviors.
- Develop leadership capabilities in matters of animal health and welfare and public health.
- Exhibit professional behaviors in practice, including honesty, integrity, reliability, compassion, respect, altruism and commitment to animal health and welfare, and public health.
- Maintain appropriate professional boundaries; appropriately manage conflicts of interest.
- Conduct oneself in a professional manner with regard to a veterinarian's legal and professional responsibilities.

### **Improvement Recommendations**

- Foster awareness of ethical conduct.
  - Value and prepare for engaged leadership.
  - Define community broadly (more than just where one lives).
  - Influence students (?).
-

<b>Ethical Professional Leadership</b> <b>Recommended Changes to Curriculum – to Optimize Proficiency</b> <i>* Create DVMs with the skills to seek and exercise leadership when opportunity occurs</i>					
	Competency Detail	Required at Admission? (Y/N)	When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)	How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)	How to Know When the Student is 'Practice Ready' in this Skill? (E.g. continual assessment, examinations throughout)
1	Commitment to patients, profession, society	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Should be considered</li> </ul>	<ul style="list-style-type: none"> <li>• Start in 1<sup>st</sup> year</li> <li>• Continually/ throughout</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple ^ use examples (opportunity for responsibility)</li> <li>• Scenarios?</li> </ul>	<ul style="list-style-type: none"> <li>• Subjective assessment</li> <li>• By final year</li> </ul>
2	Develop leadership capabilities	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Should be considered</li> </ul>	<ul style="list-style-type: none"> <li>• Stand-alone</li> <li>• Start in 1<sup>st</sup> year</li> <li>• Continually/ throughout</li> </ul>	<ul style="list-style-type: none"> <li>• Stand-alone</li> <li>• Leadership experts (potentially non-DVM)</li> <li>• Expectations throughout</li> </ul>	<ul style="list-style-type: none"> <li>• Subjective assessment</li> <li>• Ongoing</li> <li>• Modeled by institution</li> </ul>
3	Exhibit professional behaviors	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Should be considered</li> </ul>	<ul style="list-style-type: none"> <li>• Start in 1<sup>st</sup> year</li> <li>• Continually/ throughout</li> </ul>	<ul style="list-style-type: none"> <li>• Case-based discussion scenarios</li> </ul>	<ul style="list-style-type: none"> <li>• Subjective assessment</li> <li>• "Non-comfort" (outside of interest area)</li> <li>• By 4<sup>th</sup> year – "practice-ready"</li> </ul>
4	Maintain professional legal/liability boundaries; manage conflicts of interest ( <i>Practice Act</i> )	<ul style="list-style-type: none"> <li>• No</li> </ul>	<ul style="list-style-type: none"> <li>• Closer to clinics ^ Later in teaching</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence-based medicine</li> <li>• Real world experience</li> <li>• Lectures/shared faculty (e.g. law school)</li> </ul>	<ul style="list-style-type: none"> <li>• Can test for legal issues/<i>Practice Act</i></li> <li>• By final year: scenarios/essay?</li> </ul>
5	Conduct oneself in a professional manner, legally & professionally	<ul style="list-style-type: none"> <li>• This team felt #3 and #5 were the same</li> </ul>			
<b>Other Key Changes Relating to this Competency</b>					
<ul style="list-style-type: none"> <li>• In all career paths, not just focused on the clinical-practicing DVM</li> </ul>					
<b>Areas of Uncertainty/Further Data or Research Requirements</b>					
<ul style="list-style-type: none"> <li>• Ethics AND professional leadership – maybe there are TWO different competencies (ethics &amp; leadership)</li> <li>• Leadership is a STAND-ALONE core competency</li> </ul>					

## 6.8 Adaptability to Changing Environments

### Description

*Veterinarians function within a continually changing practice and business environment. They seek and out and gain proficiency in new medical and communication technologies. They demonstrate curiosity and flexibility in identifying and responding to changing priorities and situations. They demonstrate sensitivity and respond to cultural, economic and other differences in their clients, colleagues and community.*

### Key Competencies

- Able to quickly acquire technology expertise.
- Cultural diversity awareness & skills.

### Supporting Competencies

- Demonstrate awareness of cultural sensitivity and cultural competency in public and private practice communications and settings.
- Be aware of economic climate in which the veterinary profession operates and respond appropriately to the influence of changing pressures.
- Demonstrate adaptability and resilience by staying optimistic and using a range of skills to handle challenges.
- Think innovatively to create or try new approaches to challenges.
- Build personal skills when confronted with new technology.

Adaptable to Changing Environments Recommended Changes to Curriculum – to Optimize Proficiency					
	Competency Detail	Expected at Admission? (Y/N)	When During the Curriculum should this Knowledge be Best Acquired? (E.g. continually, year #3)	How are these Skills Best Delivered to the Students? (E.g. lecture, mentor, practical, self-study)	How to Know When the Student is 'Practice Ready' in this Skill? (E.g. continuous assessment examination)
1	Demonstrate cultural sensitivity competency & awareness	<ul style="list-style-type: none"> <li>• Yes</li> <li>• (Expected, but not required)</li> </ul>	<ul style="list-style-type: none"> <li>• Communications courses</li> <li>• Ethics courses</li> </ul>	<ul style="list-style-type: none"> <li>• Mentor/practical</li> </ul>	<ul style="list-style-type: none"> <li>• ?? Outcomes?</li> </ul>
2	Understand economic climate and respond appropriately	<ul style="list-style-type: none"> <li>• Yes</li> <li>• Possible economics prerequisite</li> </ul>	<ul style="list-style-type: none"> <li>• Continually</li> <li>• Do you make it mandatory for every school to have business management?</li> </ul>	<ul style="list-style-type: none"> <li>• Clinics (with some measurement) and lectures</li> </ul>	<ul style="list-style-type: none"> <li>• Won't be crushed in to one case</li> </ul>
3	Demonstrate adaptability & resilience	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Not something to teach</li> </ul>	<ul style="list-style-type: none"> <li>• Not something to teach</li> </ul>	<ul style="list-style-type: none"> <li>• Not something to teach</li> </ul>

<b>Adaptable to Changing Environments</b>					
<b>Recommended Changes to Curriculum – to Optimize Proficiency</b>					
4	Think innovatively to create new approaches to challenges	<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Not something to teach, but should be assessed</li> </ul>	<ul style="list-style-type: none"> <li>• Mentors/clinics on how they are doing</li> </ul>	<ul style="list-style-type: none"> <li>• Reflective learning</li> </ul>
5	Build individual skills when confronted with new technology	<ul style="list-style-type: none"> <li>• Yes</li> </ul>		<ul style="list-style-type: none"> <li>• Clinical skills labs &amp; build on to real animals</li> </ul>	<ul style="list-style-type: none"> <li>• Subjective assessment</li> <li>• Not examinations</li> </ul>
<b>Other Key Changes Relating to this Competency</b>					
<ul style="list-style-type: none"> <li>• This competency should be funneled into other competencies – leadership, communications, ethics, lifelong learning.</li> </ul>			<ul style="list-style-type: none"> <li>• Is the title really reflective of the issue ^ it is more about responding/predicting business pressures, changing demographics of clients, etc.</li> </ul>		
<b>Areas of Uncertainty/Further Data &amp; Research Requirements</b>					
<ul style="list-style-type: none"> <li>• *Is this a 'politically correct' competency?</li> <li>• How can we incorporate change in values?</li> </ul>			<ul style="list-style-type: none"> <li>• Is there any objective way of measuring this competency?</li> <li>• Why do we lose vets 5 years out? What can do to better prepare vets for reality?</li> </ul>		

## 7.0 Stimulus Presentations: Environmental Factors that Impact Education

### 7.1 Student Debt and Starting Salaries

**Dr. Jim Wilson**  
Priority Veterinary Consultants

*Dr. Jim Wilson outlined how student debt continues to grow exponentially, with the debt-to-salary ratio up 21 per cent in the last two years alone. Tuition & fees are rising. . More and more graduates are going into internship, while internship salaries have been dropping. Offering data on the lifetime impacts of repayment, Dr. Wilson argues that this trend is unsustainable for the profession, with serious consequences for graduates' career satisfaction and life circumstances. Students should be advised of this situation and coached on how to manage their indebtedness. He also describes recent progress made by Graduate Leverage in obtaining some relief in the form of loan forgiveness.*

Q.	Vet schools are admitting more students into bigger classes. How sustainable is this for the profession in terms of job market?
A.	Three years ago, we were worrying that we didn't have enough students for the jobs. Then the recession hit; schools lost money and responded by increasing enrolment. I'm very concerned by the rapid increase in class size and the negative impact this may have on career prospects. We may be going back to 1988 when the AVMA predicted an oversupply of veterinarians.

### 7.2 Why is Veterinary Medical Training So Costly?

**Dr. Phil Nelson**  
Dean of Veterinary Medicine  
Western University of Health Sciences

*Dr. Phil Nelson discussed some of the factors that impact the cost of delivering a quality education – the number one cost being people. The key factor is how much it costs students to obtain an education. For many years, governments helped subsidize the cost of post-secondary education, but in the last two decades they have been disinvesting in education. New educational models are needed that better protect students from unsustainable levels of debt. Dr. Nelson discussed several possible solutions for veterinary medical education including asynchronous delivery of the first two years of training, reduction of pre-requisites and earlier entry into professional programs, distributive delivery models and resource sharing among schools.*

Q.	Colleges have increased class sizes to raise more money. I am very concerned that these increases are unsustainable.
A.	I disagree that the colleges increased class size for financial gain; most did so in anticipation of the need for more veterinarians. The risk of oversupply is because of the change in the economy. Share your concern on the impact of this; we can only hope economy turns around.

### ***7.3 Using Blended Methods in Veterinary Medical Admissions***

**Ms. Hilda Mejia Abreu**

**Associate Dean for Admissions and Student Services**

**University of Texas Health Science Center School of Nursing**

*Ms. Abreu emphasized the importance of non-technical skills in the successful practice of veterinary medicine across all career paths. Pointing to several examples in Canada and the U.S., she makes the case for using blended methods (technical and non-technical) to assess candidate suitability for admission to a veterinary medical educational program. She discusses barriers to using these methods and considers some of the ways that schools can help to develop culturally proficient students.*

Q.	Suggest that we be more upfront about what we are assessing in our interviews, e.g. communication skills.
A.	Agree. Some schools are assessing for communications skills; others are not. We need to be more transparent with students about what we are doing. As a community, we need to embrace a more holistic approach to assessing students for admission. This requires a lot of time – it isn't easy.

### ***7.4 Diversity in Veterinary Medicine, Key Questions for Consideration***

**Ms. Lisa Greenhill,**

**Associate Executive Director for Institutional Research and Diversity**

**AAVMC**

*Ms. Greenhill made the case for graduating a more diverse cohort of students with the skills to move fluidly across cultures and communities to the benefit of society. Veterinary medicine is still one of the most segregated of all the health professions. Mirroring trends in human health, this potentially contributes to health disparities across client populations. Exploring some of the issues behind the numbers, Ms. Greenhill challenged the profession to consider what it means by inclusion and to examine some of the ways it recruits potential candidates to the profession. What kind of learning requirements are we creating? Whose job is it to teach cultural competencies? Should we require pre-requisites in sociology and race theory? What is an optimal learning environment?*

Q.	Is there data on the likelihood of minorities taking their animals for health care ... or is this an area for research?
A.	We do need more research on this. Can point to a National Academies report called Missing Persons and Lack of Diversity in Medical Practitioners. There is a lot of data that demonstrates that increasing representation and training students on how to apply cultural bridging can help to improve health outcomes. This could be true also in veterinary medicine. I believe there are a lot of 'invisible owners' out there and different models of animal ownership may never engage the vet profession without someone reaching out.



## ***7.5 Information Intelligence: Capitalize on Open Health Resources***

**Dr. Theresa Bernardo**  
**Director, Information Technology**  
**Associate Professor, Michigan State University**

*As the medical curriculum seeks to keep pace with rapid advances in practice, students are increasingly facing information overload. Dr. Bernardo makes the case for teaching students how to critically use the ever-expanding range of online open health information resources. Building on the concepts highlighted in the NAVMEC “Out of the Box” educational delivery model, she suggests CVMs collaborate to share educational resources and facilitate distance learning. “Co-opetition” will be necessary to provide quality, accredited distance learning options capable of heading off the threat already posed by entrepreneurs offering discount online courses in major curriculum areas.*

Q.	Isn't there a risk that the advantages of live courses will get lost? What about the risk of homogenization?
A.	It's most important to make strategic use of faculty time. Is a talking head delivering the same thing, year after year, necessarily the best? Maybe there is more value in faculty in creating supporting activities and talking directly with students
Q.	Most universities have merit/promotion systems based on hours spent teaching. How do you actually implement these distance-learning concepts across these institutions?
A.	Don't have all the answers. In many cases, I think it's just building on what we already have. Obviously, you have to have the right rewards and incentives to make this all happen.

## **8.0 Breakout Results – Environmental Factors**

Participants self-selected and divided into eight innovation teams to explore some of the environmental factors impacting the educational environment and the pathways toward change. Each team was asked to identify areas of strong consensus and to make recommendations for change. They were also asked to highlight areas of uncertainty that might affect their recommendations and to suggest areas for further research.

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**8.1 Delivery Methods & Learning Styles**

<b>How should the delivery of learning materials be changed in the future? Why? What are the top priorities?</b>
Educating society-ready veterinarians in an outcome-based curriculum in a climate that requires cost reductions is challenging, but imperative. A task force should be formed to consider models for student/adult-centered and self-directed programs that reduce classroom/didactic teaching. Distance learning, including online methodologies should be incorporated – noting, however, that cost reduction may not be likely in the immediate term. Veterinary faculty members are expected to use evidence-based methodologies to deliver high-quality instruction.
<b>Can and/or should the different learning styles of students be taken more into account?</b>
None identified
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>
None identified

**8.2 Information Overload**

<b>How to reduce/eliminate ‘information overload’?</b>
<ul style="list-style-type: none"> <li>Change the type and frequency of testing, which will necessitate training faculty in new assessment tools             <ul style="list-style-type: none"> <li>Emphasize and assess context and applicability, not just memorization of facts; e.g. emphasizing problem solving skills</li> <li>Teach commonly seen clinical conditions uncommonly well; e.g. communication of solutions for behavioral, welfare, and nutritional issues, while balancing the other purposes of a university such as research, service, and training interns and residents</li> </ul> </li> </ul>
<b>Does all the material currently delivered and tested need to be memorized in the Internet era?</b>
<ul style="list-style-type: none"> <li><u>No</u></li> <li>Teach the things students can’t look up on the Internet, such as describing actual clinical cases of the disease/condition being taught             <ul style="list-style-type: none"> <li>Teach “information literacy” <a href="http://en.wikipedia.org/wiki/Information_literacy">http://en.wikipedia.org/wiki/Information_literacy</a> so students can assess the quality and applicability of what is found in Web searches</li> <li>Utilize “instructional designers” <a href="http://www.instructionaldesign.org/">http://www.instructionaldesign.org/</a> to help faculty learn new teaching and assessment tools</li> </ul> </li> </ul>
<b>Are there areas of uncertainty in your deliberations, where data/research would enable a more robust recommendation?</b>
How should faculty be assessed, and then appropriately recognized and rewarded for their results, other than student surveys?

**8.3 Cost of Education**

**Team 1**

<b>What changes can CVMs institute to reduce the cost of education?</b>	
<ul style="list-style-type: none"> <li>• Teaching hospital – run it more efficiently, institute a for-profit business model</li> <li>• Core material – figure how many full-time equivalents needed, then choose where to excel. Make agreements with other CVMS – Centers of Excellence, distance learning; AAVMC to facilitate</li> <li>• Distributive model – need a national implementation plan for all CVMs; AAVMC to facilitate</li> </ul>	<ul style="list-style-type: none"> <li>• Audit current faculty time and activities – what are they really doing? Reallocate assignments</li> <li>• Use more private practitioners for teaching clinical skills and integrating them into the basic sciences</li> <li>• Residencies – do not need to train residence in all disciplines – do only what you do best</li> <li>• More partnerships with animal shelters</li> </ul>
<b>Are there other resources that could support these educational costs? How to attract and commit these resources?</b>	
<ul style="list-style-type: none"> <li>• Increase teaching hospital efficiency; mission includes making a profit</li> <li>• Be an academic business – do not give away knowledge</li> <li>• Bring in more NIH grants – do they support educational costs?</li> <li>• More endowed teaching positions</li> <li>• Increase private donations</li> <li>• Increase class size to a minimum of 130 – facilities available?</li> <li>• Contact alumni for more donations</li> </ul>	<ul style="list-style-type: none"> <li>• More collaboration/partnership with associations to provide laboratory based (hands-on) CE at CVMs</li> <li>• <i>Comment: all could find a way to use the money, but no consensus on how to use it (commit) – fragmentation?</i></li> </ul>
<b>Can/should state/federal agencies be persuaded to increase their funding in the future? How?</b>	
<ul style="list-style-type: none"> <li>• Need to tie this to infrastructure needs</li> <li>• Convince state/federal governments that veterinary medicine is tied to human health – one health issue</li> <li>• Debt forgiveness for graduates entering federal agencies (but federal salaries need to be increased)</li> <li>• Convince federal/state government to allow check-off on income tax forms to donate to CVMs</li> </ul>	<ul style="list-style-type: none"> <li>• Where allowed, VM profession could collaborate better with college of agriculture and agriculture stakeholder groups to attract more \$ for CVMs</li> <li>• Take advantage of emerging disease outbreaks and seek more state funding during these times!</li> <li>• Teaming up with state VMAs for more lobbying</li> </ul>
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>	
<ul style="list-style-type: none"> <li>• AAVMC comparative data report – data would be more useful it was truly comparable; more uniform reporting</li> <li>• Incorporate National Academy workforce report into NAVMEC paper</li> </ul>	

**Team 2**

What changes can CVMs institute to reduce the cost of education?	
<ul style="list-style-type: none"> <li>• Direct sharing of educational resources across colleges</li> <li>• Integration</li> <li>• Regional Centers of Emphasis/Excellence                             <ul style="list-style-type: none"> <li>○ Specialists/residents/interns ^ Role of Veterinary Teaching Hospitals</li> </ul> </li> <li>• Liaise with other institutions for basic sciences                             <ul style="list-style-type: none"> <li>○ Regional Co-op Programs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Facilities – multi-purpose, flexible spaces (currently lots of unused space)                             <ul style="list-style-type: none"> <li>○ More efficient designs, use of space</li> </ul> </li> </ul> <p><i>Challenges to sharing of resources: state legislators, university administration, serving clientele</i></p>
Are there other resources that could support these educational costs? How to attract and commit these resources?	
<ul style="list-style-type: none"> <li>• Health Resources and Services Administration (HRSA), Department of Education, US Drug Administration (USDA)                             <ul style="list-style-type: none"> <li>○ Need education, examples, public relations</li> </ul> </li> <li>• Foundations</li> <li>• Commercial pharmaceutical firms</li> <li>• Academia – products, Intellectual Property, patents</li> </ul>	<ul style="list-style-type: none"> <li>• Research – indirects, salaries, equipment</li> <li>• Build companion animal constituency</li> <li>• Industry (pet food, pharmaceuticals)                             <ul style="list-style-type: none"> <li>○ Objectives, strategy, initial, sustained</li> </ul> </li> <li>• National campaign                             <ul style="list-style-type: none"> <li>○ Public relations agency/firm</li> <li>○ Need to educate faculty on opportunities – National Science Foundation, etc.</li> </ul> </li> </ul>
Can/should state/federal agencies be persuaded to increase their funding in the future? How?	
<ul style="list-style-type: none"> <li>• Yes</li> <li>• Advocacy campaign – food safety, national defense</li> <li>• Need to educate policy makers, impact policy decisions/strategy                             <ul style="list-style-type: none"> <li>○ How to get legislation passed</li> <li>○ Loan repayment</li> <li>○ Overall support</li> <li>○ Research</li> <li>○ Outreach</li> <li>○ Education</li> </ul> </li> </ul> <p><i>Challenge of working with small numbers, effectiveness &amp; efficiency</i></p>	
Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?	
<ul style="list-style-type: none"> <li>• How to mount an effective PR campaign – effective messaging?</li> <li>• Cost savings of distance/virtual education, etc.?</li> <li>• Start-up costs</li> </ul>	<ul style="list-style-type: none"> <li>• Graduate leverage program</li> <li>• Efficiencies of Veterinary Teaching Hospitals</li> </ul>

**8.4 Student Debt**

<b>Do you believe that student debt is currently a problem? Why? Why not?</b>	
<ul style="list-style-type: none"> <li>• Yes</li> </ul>	<ul style="list-style-type: none"> <li>• Rising tuition (15% each year)</li> <li>• Decreasing funding for education</li> </ul>
<b>What are some of the practical ways to reduce this problem, in addition to lowering tuition fees?</b>	
<ul style="list-style-type: none"> <li>• Make sure DVMs come out of school “career-ready”, with tools for producing higher income, e.g. provide preceptorship during final year</li> <li>• Providing tools to the veterinary profession for producing higher income</li> <li>• Universities make compact with students to limit tuition increases during four years professional program</li> <li>• <u>Educators</u> who have experience in the real world</li> <li>• Promote mentorship of recent grads in lieu of internships</li> <li>• Restructuring of loan program</li> <li>• Financial counseling for students every year</li> </ul>	<ul style="list-style-type: none"> <li>• Identify legal way for an employer to reduce debt as a salary benefit</li> <li>• Re-evaluate number of years for total professional education. It doesn't have to be 4 pre-veterinary + 4 veterinary medical school</li> <li>• Raise awareness of loan repayment/debt forgiveness programs</li> </ul>
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>	
<ul style="list-style-type: none"> <li>• What does “practice-ready” mean? Do private practitioners define it the same way academics do?</li> </ul>	

**8.5 Admissions Pre-Requisites**

<b>What changes to admissions PRE-REQUISITES would you recommend? Why?</b>	
<ul style="list-style-type: none"> <li>• Reduce the pre-requisites to absolute minimum needed for a given curriculum, select for skills that will generate success for the profession, not just the school. Fewer requirements, more diverse experiences and courses.</li> <li>• Do they need to complete a degree granting program to be admitted?</li> <li>• Suggest public speaking, speech, communication be a pre-requisite</li> <li>• Drop experiential requirements (in private practice)</li> <li>• Lower bar on GRE, GPA, if used (less weight to standardized tests)</li> <li>• Variety of “suggestions”/fewer requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Fewer requirements ^ less money, more applicants, more ability to get other experiences</li> <li>• Service to human beings may be more important than animal experience</li> <li>• Some suggestions: research experience, foreign language, service experience, business</li> </ul>

<b>What changes to admissions PROCESS would you recommend?</b>	
<b>Why?</b>	
<ol style="list-style-type: none"> <li>1. If interview is used, choose behavioural or Multi Mini Interviews with trained interviewers</li> <li>2. Less weight to standardized test/GPA</li> <li>3. Ability to build holistic score with standardized evaluation of experience, coursework etc.</li> </ol>	<p>Why?</p> <ol style="list-style-type: none"> <li>1. Validity</li> <li>2. Does not relate to life success</li> <li>3. Ability to build diverse class, select for life skills</li> </ol>
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>	
<ul style="list-style-type: none"> <li>• Do we lose students to other health professions?</li> <li>• Does work/practice requirement add anything?</li> <li>• Does an interview make a difference to long-term success?</li> <li>• Relationship between cost and difficulty of application and application rate?</li> </ul>	<ul style="list-style-type: none"> <li>• Need to start building evidence regarding relationship between pre-requisites, life success (not just school success), even if this complicates ease of teaching</li> </ul>

### 8.6 Diversity

<b>How should the CVMs incorporate exposure to issues around diversity in veterinary medicine into the DVM curriculum?</b>	
<p><b>Summary</b></p> <ul style="list-style-type: none"> <li>• Diversity should be part of every college's strategic plan with metrics and assessment; should hold faculty accountable and include training in cultural competency for faculty/staff/students                             <ul style="list-style-type: none"> <li>△ Enhance administration</li> <li>△ Positive environment and culture</li> </ul> </li> <li>• Importance emphasized through specific accreditation standards with core competency requirements for students</li> <li>• Training integrated in all four years of curriculum, but recognize that diversity is not a stand-alone topic, should be part of integrated training for leadership, professional behaviour, communication and teamwork</li> </ul>	<ul style="list-style-type: none"> <li>• Learning environment – cultural competence of faculty/staff/students; part of strategic plan; develop metrics</li> <li>• Integrate into curriculum through courses/electives/requisites, service projects, communication modules, clinical experiences, conflict resolution &amp; difficult conversations, how to build a staff</li> <li>• Make sure expertise to teach exists – may need outside expertise</li> <li>• Facilitate network for faculty and students to interact and teach/support each other</li> <li>• Part of leadership and professionalism issues and training</li> <li>• Standard for accreditation                             <ul style="list-style-type: none"> <li>– Core competencies</li> <li>– Curriculum</li> <li>– College metrics</li> <li>– Anti-discrimination policy</li> </ul> </li> </ul>

<b>What should the profession &amp; the CVMs do to make the profession more attractive to a more diverse group of individuals?</b>	
<ul style="list-style-type: none"> <li>• Be visible – “Vets that look like you”</li> <li>• Successful role models</li> <li>• Tie to Vet Oath, etc., to get buy-in</li> <li>• Education system for recruitment, starting in middle school; educate counselors and parents</li> <li>• Accessibility of information and exposure to the profession; You-Tube videos, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Engage students and practitioners in recruitment</li> <li>• Show diversity of profession in the media</li> <li>• Leverage support</li> </ul>
<b>Who or what is ultimately responsible for broadening the diversity in our profession?</b>	
<ul style="list-style-type: none"> <li>• All of veterinary profession: leadership; AVMA, AAVMC, state associations, CVMs, every veterinarian has a responsibility</li> <li>• Find champions/change agents for diversity at CVMs ^ recruitment</li> <li>• Affinity groups to support under represented groups; VOICE, GLBT</li> <li>• Recognize individuals with prestigious awards</li> </ul>	
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>	
<ul style="list-style-type: none"> <li>• Why was there a shift in gender? We could learn from this and try to apply to different situations</li> <li>• Does a more diverse veterinary population serve societal needs better?</li> <li>• Inventory of current programs</li> </ul>	



## 9.0 Stimulus Presentations: Accreditation, Testing and Licensure

### 9.1 Veterinary Medical Education: Lost in Translation

**Dr. Jennie Hodgson**  
 Associate Dean, Professional Programs  
 VA-MD Regional College of Veterinary Medicine

*Dr. Jennie Hodgson presented a college perspective on the need for change. Voices within the veterinary educational community and profession have been calling for change for over 30 years, and although micro-level changes have occurred in many areas, we haven't achieved the systemic transformation we've wanted or needed. It's time for collaboration. Change will involve hard decisions: sometimes we will have to give up things. We will have to work with our partners in accreditation, testing and licensing, and we will likely be more effective if we maintain college flexibility and encourage change through boundary setting and incentives. We can also learn from the experiences of other professions in implementing change. If we don't act soon, students will force the change for us by voting with their feet.*

Q.	Great talk with lots of specific ideas. Still, you're missing the other three drivers: students, employers and the public.
A.	Agree. Raised this in my AAVMC talk. Student evaluation does drive change locally at a lot of colleges. The question is to how do we get it to a national level? Students, employers and the public are making recommendations that we need to listen to.

### 9.2 Accreditation (AVMA Council on Education)

**Dr. James Brace**  
 Associate Dean for Student and Academic Affairs, University of Tennessee  
 Incoming Chair, AVMA Council of Education  
 Chair of Academic Affairs Committee

**Dr. Laurie Jaeger**  
 Chair, Department of Basic Medical Sciences, Purdue University  
 Current Chair of AVMA Council of Education

*Dr. Brace and Dr. Jaeger provided an overview of how the AVMA Council on Education (CoE) develops and applies its accreditation standards. This included excerpts from a new video on the CoE. Each CVM must apply for re-accreditation at least every 7 years. CoE standards undergo regular review to ensure they keep pace with changing veterinary practices and the US Department of Education requirements. CoE accreditation is a North American process that applies to colleges in Canada and the United States. They noted that the CoE can receive an outside proposal for a new standard or a change to a standard. The Committee on Academic Affairs reviews these requests for adequacy, relevance and potential impact on students, colleges, the profession and society. Their recommendation then goes to the Council, and if the request is approved, the proposed standard is put through the full consultation process with the deans of accredited schools. .*

Q.	Could you discuss how you address non-technical skills in outcomes assessment and standards. How do we create a greater sense of importance of these for the general profession?
A.	Outcomes assessment is the most important standard in my opinion. Non-technical competencies play a major role in success. I see them playing an even more important role over time. I see the NAVMEC identified competencies as fitting in with the CoE standards. There is a lot of flexibility in the standards ... for example, in client communications each school has flexibility to implement this standard in a relevant way to the college.

### ***9.3 Accreditation in another Profession***

**Dr. Neil Harvison**  
**Director of Accreditation and Academic Affairs**  
**American Occupational Therapy Association**

*Dr. Harvison highlighted current trends (and political pressures) in the larger educational fields that are impacting accreditation. This included an overview of the structure of the professional accreditation system and its oversight by the US Department of Education. Current issues of interest include default on student loans, graduation rates and educational outcomes amongst students of low-income and minority backgrounds. Educators can expect greater push from federal agencies on regulation, accreditation, institutional transparency, outcomes assessment and competency-based content standards.*

Q.	Colleges are facing a laundry list of competencies. Any thoughts on how to weed this down?
A.	Having multiple masters to appease makes it more difficult. The big question is: what is entry level? What are the core competencies needed to practice?

### ***9.4 Testing (NBVME)***

**Dr. Jay Hedrick**  
**Incoming Chair**  
**National Board of Veterinary Medical Examiners**

*Dr. Hedrick gave an overview of the National Board of Veterinary Medical Examiners and how they develop and administer the NAVLE\* examination. The NBVME is non-profit, professional veterinary examining service that administers an independent, high-quality, high-stakes veterinary medicine exam that is used by state and provincial licensing bodies to license veterinarians. It is focused on protecting the public by measuring readiness for entry-level private veterinary practice. The exam questions are constantly renewed and updated, the passing standard is reviewed each year, and all licensing boards in North America accept the same passing standard.*

*\*NAVLE is the North American Veterinary Licensing Examination*

Q.	What is the correlation between NAVLE and class rank. Do you have this information?
A.	If students sign a consent form, the information is sent back to the school.
Q.	What happens in the 30 days between the exam date and the reporting of the mark? This seems long in this day of digital technology.
A.	Everything about the exam is statistically validated. Occasionally, a statistician pulls out a question and says the results don't look good; they are too high, too low. The Board then makes a decision on the validity of including this question and may delete it from consideration

### ***9.5 New Concept: Menu-Driven NAVLE***

**Mr. Mark Cushing**  
**Outside Government Counsel for Banfield, The Pet Hospital**

**Mr. Ralph Johnson**  
**Executive Director, Colorado VMA**

*Flowing out of the Foresight report, a small working group has been exploring the idea of a menu-driven NAVLE that would address some of the issues around information overload, cost of education/student debt and 'tracked' curriculums. The option of a menu-driven NAVLE would enable students to focus their studies on areas of career interest. The Colorado VMA has indicated some support for being a pilot state for this concept and is considering making a request to the NBVME to explore the development of a menu-driven NAVLE.*

Q.	What do you mean by a "simpler" test? Developing such an exam might actually be more difficult.
A.	We mean "simpler" from the standpoint of the student – streamlining the range of content and ensuring that is more relevant to the academic program they have pursued.
Q.	Are you asking for limited licensure or general licensure with limited expertise?
A.	We can use law school as an example. Students spend two years in a general program and then specialize for two years. Lawyers receive a general license to practice. The marketplace takes care of the issue of specialization. If you claim to have expertise that you don't have, you get sued. You state your expertise and it's up to consumers to check you out and make informed choices.
Q.	How will this lower the cost of education, as you claim? Colleges will still have to keep all the personnel to offer all the courses.
A.	Colleges can choose how many areas of study they want to cover. Students will choose between schools on the basis of their areas of excellence.

## ***9.6 AAVSB and State/Provincial Licensing Bodies***

**Dr. John King**  
**Executive Director**  
**Minnesota Board of Veterinary Medicine**  
**American Association of Veterinary State Boards (AAVSB)**

*Dr. King gave an overview of the role of the state/provincial licensing system in protecting the public through efforts to promote and maintain a competent veterinary workforce. The American Association of Veterinary State Boards is a non-profit organization that provides services to 57 state or provincial jurisdictions based on the decisions of these bodies as a whole. Each state or province governs the practice of veterinary medicine in its jurisdiction.*

Q.	Is it the degree granted at the end of an education or is it obtaining a license that allows a veterinarian to enter the profession? I am of the view that it should be the degree, and the license should be for practicing a specialty.
A.	There are three parts to this system: education, proof of proficiency (the national exam) and ongoing accountability. This last part involves license renewal and the risk of disciplinary action for malpractice.
Q.	Where do students fit into this process? As we move to more distributive delivery models, and students are asked to diagnose patients and communicate with clients, is there a risk to students of stepping over the line into practicing veterinary medicine without a license?
A.	There are state-to-state exemptions for this situation. If students are enrolled in an accredited vet school, and are acting under the supervision of a licensed practitioner, they can perform certain duties for the purposes of their education without being considered to be practicing veterinary medicine. There ARE stipulations, so you should check out your state regulations on this.

## **10.0 Breakout Results: Accreditation, Testing & Licensure**

Participants self-selected and divided into nine innovation teams to discuss potential changes in the areas of accreditation, testing and licensure. Their recommendations are described in the tables below.

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**10.1 Accreditation**

The three “Accreditation” breakout groups mapped the NAVMEC core competencies (identified at NAVMEC meeting #1) against the current College of Education (CoE) accreditation standards. All three groups found that most of the NAVMEC competencies were represented in the existing CoE accreditation standards, but recommended that the wording of the standards could be clearer and more specific to encourage the CVMs to further implement the NAVMEC recommendations.

**NAVMEC Core Competencies**

The following is a list of core competencies developed at NAVMEC Meeting 1. Accreditation breakout groups #2 and #3 referred to these competencies by number in their records of discussion.

<p><b>1. Multi-Species Clinical Expertise</b>                  –Diagnosis and therapeutic skills; animal behavior, wellness, and welfare                  –Prevention and treatment of common health problems</p> <p><b>2. Interpersonal Communications &amp; Education</b>                  –Facilitate doctor-patient-client relationship                  –Effective interactions with team members, colleagues &amp; community                  –Oral &amp; written communications, and use of e-media (social networking)                  –Perform compassionate health care delivery</p> <p><b>3. Collaboration</b>                  –Work within a healthcare team to achieve optimal patient care                  –Partner with interdisciplinary healthcare providers, policy makers, etc.</p> <p><b>4. Management (Self, Teams, Systems)</b>                  –Efficient operation of business; financial literacy                  –Resource allocation, delegation, prioritization &amp; investment decisions</p> <p><b>5. Public Health &amp; One Health Promotion</b>                  –Prevent, diagnose &amp; control zoonotic diseases                  –Involved in the political process and advocacy                  –Knowledge of food safety and security</p>	<p><b>6. Lifelong Learning</b>                  –Critical thinking, problem solving &amp; curiosity                  –Invest in self-directed learning to develop and expand competencies</p> <p><b>7. Ethical Professional Leadership</b>                  –Committed to health &amp; welfare of patients                  –Protection of human health through ethical practice                  –Considered to be leaders in the community; media-savvy                  –Volunteer to be spokesperson</p> <p><b>8. Adaptable to Changing Environments</b>                  –Able to quickly acquire technology expertise                  –Cultural diversity awareness &amp; skills</p> <p><b>9. Emerging and New Competencies</b>                  –Competency in a much broader spectrum of digital technology: communications, diagnostic &amp; treatment                  –Knowledge of eco-issues, climate change, ‘green’                  –Increasing awareness on ethical issues, including genetic modification                  –Increased political engagement &amp; advocacy                  –“One Health” may provide opportunities for new roles, requiring new skills (medical and non-medical)</p>
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**ACCREDITATION (1)**

#	Core Competency	Comments
1	Multi-species Clinical Expertise	<ul style="list-style-type: none"> <li>Covered in 21.11.3, #1 – 6 (Organization, Finances, Facilities &amp; Equip., Clinical Resources, Library &amp; Information Resources, Students)</li> </ul>
2	Communications	<ul style="list-style-type: none"> <li>Change “client” to “interpersonal”</li> <li>21.11.3, #8 (Faculty) – Add advocacy? Not sure if Day 1?</li> </ul>
5	Public Health	<ul style="list-style-type: none"> <li>Yes, in 21.11.3, #7 (Admissions)</li> <li>Use “One Health” and globalization language</li> </ul>
6	Life-long Learning	<ul style="list-style-type: none"> <li>Yes, in 9.9 paragraph #1 (Curriculum)</li> <li>Outcomes covered in assessment of graduates that is required</li> </ul>
7	Ethics & Leadership	<ul style="list-style-type: none"> <li>Split 21.11.3, #8 (Faculty)</li> <li>Consider communications and ethics separately</li> </ul>
8	Adaptable to Change	<ul style="list-style-type: none"> <li>Diversity is in #7 (Admissions)</li> <li>Do <u>not</u> include in #11 (Outcomes)</li> <li>Adaptability is in 9.9. g (Curriculum)</li> </ul>
9	Emerging Competencies	<ul style="list-style-type: none"> <li>21.11.3, #7 (Admissions) covers many elements</li> <li>See public health breakout discussions</li> </ul>
10	Research	<ul style="list-style-type: none"> <li>“10<sup>th</sup> core competency” as it is addressed in 21.11.3 - NEW</li> <li>Should remain in accreditation standards</li> </ul>

**ACCREDITATION (2)**

Note items in **BOLD** indicate primary match between NAVMEC competencies and CoE accreditation standards.

#	Accreditation Standard	Core Competency	Comments
1	Organization <i>Develop and follow its mission statement</i>	1 (Multi-species Clinical Expertise)	
2	Finances <i>Finances to sustain the educ. programs</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li>New and emerging – financial support (One Health)</li> </ul>
3	Facilities & Equip. <i>Provide appropriate learning environment</i>	1 (Multi-species Clinical Expertise)	
4	Clinical Resources <i>Normal and diseased animals for instruct.</i>	1 (Multi-species Clinical Expertise)	

#	Accreditation Standard	Core Competency	Comments
5	Library & Info Res. <i>Info access available to students &amp; faculty</i>		
6	Students <i># students consistent with the resources</i>	6 (Life-Long Learning)	<ul style="list-style-type: none"> <li>Strengthen “self-management” – student services and diversity</li> </ul>
7	Admissions <i>Well defined/stated admissions process</i>	2 (Communications) 3 (Collaboration) 7 (Ethics & Leadership)	<ul style="list-style-type: none"> <li>2 &amp; 3, graduate with the ability; can be affected by admissions – school choice</li> <li>Add 8 (Diversity; cultural competence)</li> </ul>
8	Faculty <i># sufficient to deliver the educ. program</i>	1 (Multi-species Clinical Expertise) 2 (Communications)	<ul style="list-style-type: none"> <li>2 – link with tenure</li> <li>Add 8 (Diversity; cultural competence)</li> </ul>
9	Curriculum <i>Min. 4 academic years; min. 1 year clinical;</i>	<b>1</b> (Multi-species Clinical Expertise) <b>2</b> (Communications) <b>3</b> (Collaboration) <b>4</b> (Management) <b>5</b> (Public Health) <b>7</b> (Ethics & Leadership) <b>8</b> (Diversity; cultural competence)	<ul style="list-style-type: none"> <li>Add collaboration</li> <li>1 – add animal behaviour, wellness &amp; welfare</li> <li>2 – include public</li> <li>4 – 9f</li> <li>4 – add self-management instruction</li> <li>5 – add exposure to political process &amp; advocacy</li> <li>Add 8 (Diversity; cultural competence)</li> </ul>
10	Research Programs <i>Research activities to strengthen the program</i>		
11	Outcomes Assess. <i>Must be implemented</i>	<b>1</b> (Multi-species Clinical Expertise) <b>2</b> (Communications) <b>3</b> (Collaboration) <b>4</b> (Management)	<ul style="list-style-type: none"> <li>Add collaboration either as competency or measurable outcome</li> <li>2 – add team, community/clients, colleagues, public</li> <li>4 – add direct &amp; indirect “strong appreciation”</li> </ul>
	Digital Technologies		<ul style="list-style-type: none"> <li>Primary issue for faculty</li> </ul>
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>			
	Does the curriculum have to be 4 years? Are there Legal restrictions?		



**ACCREDITATION (3)**

#	Accreditation Standard	Core Competency	Comments
1	Organization <i>Develop and follow its mission statement</i>		<ul style="list-style-type: none"> <li>Covered p. 52, 1 –6 (Organization, Finances, Facilities &amp; Equip., Clinical Resources, Library &amp; Information Resources, Students)</li> </ul>
2	Finances <i>Finances to sustain the educ. programs</i>		<ul style="list-style-type: none"> <li>Client &amp; interpersonal</li> </ul>
3	Facilities & Equip. <i>Provide appropriate learning environment</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li><u>Not</u> in standards, 9.9 d if to be specified</li> </ul>
4	Clinical Resources <i>Normal and diseased animals for instruct.</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li>In standards, <u>not</u> in outcomes, but should be</li> </ul>
5	Library & Info Res. <i>Info access available to students &amp; faculty</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li>In 21.11.3, #7 (Admissions)</li> <li>See notes in Public Health, One Health (globalization)</li> </ul>
6	Students <i># students consistent with the resources</i>		<ul style="list-style-type: none"> <li>In 9.9</li> <li>In outcomes in Assessment of Graduates</li> </ul>
7	Admission <i>Well defined/stated admissions process</i>	8 (Diversity; cultural competence)	<ul style="list-style-type: none"> <li>Split 21.11.3</li> <li>#8 communications/ethical</li> </ul>
8	Faculty <i># sufficient to deliver the educ. program</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li>Diversity is in admissions (cultural literacy), <u>not</u> included in outcomes</li> <li>Adaptability – Statement 9.9.g</li> </ul>
9	Curriculum <i>Min. 4 academic years; min. 1 year clinical;</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li>21.11.3, #7 (see public health discussion for ecosystem health) in the curriculum</li> </ul>
10	Research Programs <i>Research activities to strengthen the program</i>	1 (Multi-species Clinical Expertise)	<ul style="list-style-type: none"> <li>Addressed in 21.11.3, #9</li> </ul>
11	Outcomes Assess. <i>Must be implemented</i>	All	
	Advocacy		<ul style="list-style-type: none"> <li>Add in communications</li> </ul>

#	Accreditation Standard	Core Competency	Comments
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>			
• None identified			

**10.2 Testing**

*One of each of the three testing breakout groups considered how the competencies are/could be evaluated for skills needed in three different foci: private clinical practice; public practice, including research, regulatory, and industry activities; SKAs*

**TESTING (CLINICAL PRACTICE)**

<b>Critical Changes to Current Testing Methodologies for Clinical Practice skills</b>	
<b>WHAT</b> to Test	<ul style="list-style-type: none"> <li>• What do we mean by the term “practice-ready”?                             <ul style="list-style-type: none"> <li>○ Ready to be employed and able to start to practice in clinical area</li> <li>○ Doing one spay is not enough to be good at spaying. It takes a long time to be really “good” at each procedure</li> <li>○ DVM diploma &amp; passing NAVLE = Practice-Ready</li> </ul> </li> </ul> <p style="text-align: center;">Abolish term “practice-ready”</p>
<b>HOW</b> to Test	<ul style="list-style-type: none"> <li>• NAVLE currently effective in testing knowledge and clinical problem-solving skills for entry-level, private clinical practice in a variety of animal species</li> <li>• Keep same level of testing</li> </ul>
<b>WHEN</b> to Test	
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>	
• None identified	

**TESTING (PUBLIC PRACTICE etc.)**

Critical Changes to Current Testing Methodologies for the skills needed in the various Public Practice Careers			
<b>WHAT</b> to Test	<ul style="list-style-type: none"> <li>• All students need exposure:                             <ul style="list-style-type: none"> <li>○ Public health, food safety, emergency response, risk assessment, regulatory framework</li> <li>○ One Health</li> <li>○ Ecosystems health</li> <li>○ Infectious diseases                                     <ul style="list-style-type: none"> <li>○ Zoonotic prevention, diagnosis, control</li> <li>○ Foreign animal disease threats</li> <li>○ Occupational threats</li> </ul> </li> <li>○ IACUC, research issues, welfare issues</li> <li>○ Research methodology/critical thinking                                     <ul style="list-style-type: none"> <li>How to evaluate, interpret literature, research papers</li> </ul> </li> </ul> </li> </ul>		
<b>HOW</b> to Test	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>• NAVLE                             <ul style="list-style-type: none"> <li>○ Incorporation of concepts into species-specific questions                                     <ul style="list-style-type: none"> <li>▪ Examples:   <ul style="list-style-type: none"> <li>• Cattle – foot &amp; mouth disease</li> <li>• Dog – Laptospirosis</li> </ul> </li> </ul> </li> <li>○ Using case studies/systems approach</li> </ul> </li> </ul> </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <li>• US Department of Agriculture Accreditation Test                             <ul style="list-style-type: none"> <li>○ If pass, credited for 10 public health questions on NAVLE</li> </ul> </li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>• NAVLE                             <ul style="list-style-type: none"> <li>○ Incorporation of concepts into species-specific questions                                     <ul style="list-style-type: none"> <li>▪ Examples:   <ul style="list-style-type: none"> <li>• Cattle – foot &amp; mouth disease</li> <li>• Dog – Laptospirosis</li> </ul> </li> </ul> </li> <li>○ Using case studies/systems approach</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• US Department of Agriculture Accreditation Test                             <ul style="list-style-type: none"> <li>○ If pass, credited for 10 public health questions on NAVLE</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• NAVLE                             <ul style="list-style-type: none"> <li>○ Incorporation of concepts into species-specific questions                                     <ul style="list-style-type: none"> <li>▪ Examples:   <ul style="list-style-type: none"> <li>• Cattle – foot &amp; mouth disease</li> <li>• Dog – Laptospirosis</li> </ul> </li> </ul> </li> <li>○ Using case studies/systems approach</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• US Department of Agriculture Accreditation Test                             <ul style="list-style-type: none"> <li>○ If pass, credited for 10 public health questions on NAVLE</li> </ul> </li> </ul>		
<b>WHEN</b> to Test	<ul style="list-style-type: none"> <li>• Two tests – based on progress through program                             <ol style="list-style-type: none"> <li>1. Basic sciences &amp; all species basic information, plus public health, critical thinking/research analysis</li> <li>2. Applied clinical information                                     <ul style="list-style-type: none"> <li>Test NAVLE Section 2</li> </ul> </li> </ol> </li> </ul>		
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>			
<ul style="list-style-type: none"> <li>• Impact of tracking on career flexibility – how much shift in careers now vs. 15 years ago?</li> <li>• Impact of 2-level testing vs. one test at end of curriculum on student outcomes &amp; career success?                             <ul style="list-style-type: none"> <li>Inventory of public health curriculum – what’s being taught where?</li> </ul> </li> </ul>			

**TESTING(SKAs)**

Comments: This group included representatives from about 10 CVMs. SKAs are already being addressed by these schools in a variety of ways. SKAs are also being learned/practiced through non-credit activities including student clubs and the Veterinary Business Management Association (leadership, organizational skills, budgeting).

	<b>Critical Changes to Current Testing Methodologies for SKAs</b>	
<b>WHAT</b> to Test	<ol style="list-style-type: none"> <li>1. Communication (HUGELY important)</li> <li>2. Business</li> <li>3. Critical thinking</li> <li>4. Professionalism/ethics</li> <li>5. Collaboration</li> <li>6. Personal budgeting</li> </ol>	<ol style="list-style-type: none"> <li>7. Leadership</li> <li>8. Life-long learning</li> <li>9. Advanced communication</li> <li>10. Organizational skills, time management, multi-tasking</li> <li>11. Advanced communication</li> </ol>
<b>HOW</b> to Test	<ol style="list-style-type: none"> <li>1. Communication, critical thinking – OSCE (objective structured clinical examination)</li> <li>2. Communication, business, critical thinking, professionalism/ethics, collaboration, personal budgeting, leadership, life-long learning – market forces/success/feedback from externships, etc.</li> <li>3. Communication, critical thinking, professionalism/ethics, collaboration – clinical rotation assessment</li> <li>4. Business, personal budgeting – specific courses/projects</li> <li>5. Communications, critical thinking, professionalism/ethics, collaboration – personality assessments, behavioural interviews</li> <li>6. Collaboration – peer review, self-assessment</li> <li>7. Multiple choice – difficult to use to assess SKAs, although there are some individuals skilled at writing effective multiple choice questions in this area</li> <li>8. “Extracurricular” (non-credit) activity</li> <li>9. VBMA/other clubs</li> </ol>	<ol style="list-style-type: none"> <li>10. Multiple choice questions (6% of NAVLE), difficult to assess</li> <li>11. Personality assessments (Myers-Brigg)</li> <li>12. Behavioural interviews</li> <li>13. Peer review</li> <li>14. Clinical rotation assessment</li> <li>15. Specific courses/projects (business)</li> <li>16. OSCE</li> <li>17. Market forces – ultimate success</li> <li>18. Externship feedback, etc. – use of adjunct faculty</li> </ol>
<b>WHEN</b> to Test	<ul style="list-style-type: none"> <li>• Admissions process</li> <li>• Senior year</li> <li>• Throughout curriculum – especially communication, critical thinking, e.g. journal article – practice, assess, practice</li> <li>• Upper level – business etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce SKAs to students during orientation, map out the curriculum to show where they will have opportunities to learn about/practice SKAs</li> <li>• Portfolio – required, based on self-directed process throughout the curriculum, include logs/diaries/self-assessment, business project</li> </ul>

	<b>Critical Changes to Current Testing Methodologies for SKAs</b>	
	Market forces – success post graduation	
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>		
	Emotional intelligence training/assessment	

**10.3 Licensure**

*The three breakout groups that considered the licensing process were asked to consider limited licensure, national licensure, and ways to assure ongoing competency to practice (including consideration of scope of practice)*

**LICENSURE (1)**

	Merits of <b>Limited</b> Licensure	Merits of <b>Unlimited</b> Licensure	<i>No consensus/No Vote</i>
<b>G E O G R A P H I C</b>	<ul style="list-style-type: none"> <li>• State revenue</li> <li>• Enforcement/regulation at the state level</li> <li>• May limit &amp; monitor the movement of disciplined DVMs more effectively</li> </ul>	<ul style="list-style-type: none"> <li>• Greater mobility</li> <li>• Addresses growing use of technology/telemedicine across state lines</li> <li>• Potential for better regulation (see below)</li> <li>• Potential to standardize licensure requirements across the country</li> <li>• Potential to create a complete non-voluntary national, DVM licensure and discipline database</li> </ul>	<ul style="list-style-type: none"> <li>• There may be merit to a national licensure system <u>IF</u> administered appropriately</li> </ul>

	Merits of <b>Limited</b> Licensure	Merits of <b>Unlimited</b> Licensure	<i>No consensus/No Vote</i>
<b>S P E C I E S</b>	<ul style="list-style-type: none"> <li>• May enhance an individual's knowledge in a species area</li> </ul>	<ul style="list-style-type: none"> <li>• Flexibility in career progression <u>and</u> increased opportunities</li> <li>• Easier to regulate</li> <li>• Access to diverse funding sources</li> </ul>	<ul style="list-style-type: none"> <li>• Disconnect limited licensure from the discussion of tracking (one doesn't follow the other)</li> </ul> <p>Note: If you consider limited licensure, it would be in <u>addition</u> to unlimited licensure</p>
<b>Are There Better Ways to Measure the Competencies of a DVM?</b>			
	<ul style="list-style-type: none"> <li>• Clinical skills + OSCE for all graduates</li> <li>• Revise DVM curriculum to ensure all core competencies are covered <u>AND</u> make certain to measure success</li> </ul>	<ul style="list-style-type: none"> <li>• If we do a better job of ensuring core competencies are met, then NAVLE is an acceptable way to measure DVM knowledge (technical &amp; non-technical skill sets)</li> </ul>	
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>			
	<ul style="list-style-type: none"> <li>• For nationwide licensure:                             <ul style="list-style-type: none"> <li>○ National database/reporting/regulation of DVM license required/must be complete</li> <li>○ National licensure system still requires state registration/fee for each state where DVM practices</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• It would be very difficult to have a National Practice Act</li> <li>• What is happening in Canada re: nation-wide licensure?</li> <li>• Why does unlimited licensure work so well in the field of law?</li> <li>• "Practice-ready" is yet to be defined – how to measure? Clarify in CoE standards?</li> </ul>	

**LICENSURE (2)**

	Merits of <b>State</b> Licensing	Merits of <b>Nationwide</b> Licensing	Recommend
<b>G E O G R A P H I C</b>	<p>Advantages</p> <ul style="list-style-type: none"> <li>Local control and knowledge</li> <li>Regional differences in standard of care</li> <li>Local discipline</li> <li>Quicker action</li> <li>Keep fees local</li> </ul> <p>Disadvantages</p> <ul style="list-style-type: none"> <li>More difficult to track “problems”?</li> </ul>	<p>Advantages</p> <ul style="list-style-type: none"> <li>Consistent standard</li> <li>Easier to implement</li> <li>Mobility</li> </ul> <p>Disadvantages</p> <ul style="list-style-type: none"> <li>Requires changing each state law</li> <li>How to implement a disciplinary system?</li> </ul>	<ul style="list-style-type: none"> <li>Lower reciprocity barriers</li> <li>National licensure with state-by-state implementation</li> </ul>
	Merits of <b>Limited</b> Licensure	Merits of <b>Unlimited</b> Licensure	
<b>S P E C I E S</b>	<ul style="list-style-type: none"> <li>Allows focused training to improve Day One competency (and value)</li> <li>May shorten length of education</li> <li>Allows schools to focus resources (?)</li> <li>Higher expectations may lead to higher-level teaching</li> </ul>	<ul style="list-style-type: none"> <li>Currently acceptable to state boards</li> <li>Self-regulation and market regulation is working</li> <li>Allows flexibility of career choice</li> <li>Allows specialists and others to practice across species</li> </ul>	<ul style="list-style-type: none"> <li>Centers of Excellence</li> <li>Focused training &amp; testing with unlimited licensure</li> </ul>
<b>Are There Better Ways to Assure that Licensing Protects the Public?</b>			
<ul style="list-style-type: none"> <li>Rigorous education, pre- and post- DVM (CE)</li> <li>Clinical competency/proficiency exam</li> </ul> <p>Random hospital inspections/medical record evaluation</p>			
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>			
<ul style="list-style-type: none"> <li>Does a shorter path decrease education costs?</li> <li>What is the relationship between licensure and testing?</li> </ul>		<ul style="list-style-type: none"> <li>Do NAVLE scores correlate with clinical competencies?</li> <li>Risk factors for disciplinary actions?</li> </ul>	



**LICENSURE (3)**

	Merits of <b>State</b> Licensing	Merits of <b>Nationwide</b> Licensing	Recommend
<b>G E O G R A P H I C</b>	<ul style="list-style-type: none"> <li>Control &amp; enforceability of vet practicing in that state</li> <li>Retain \$ at state level</li> <li>Endorsement model – state licensure with uniformity of requirements + licensure by endorsement                             <ul style="list-style-type: none"> <li>Greater scope of practice</li> <li>National registry</li> <li>Retain enforceability</li> </ul> </li> <li>Recognition model                             <ul style="list-style-type: none"> <li>Based on Driver’s License model</li> <li>Greatest transferability or range of practice at lower cost</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Expanded technology &amp; scope of practice</li> <li>Removes barriers &amp; cost</li> <li>State-by-state (teleradiology)</li> </ul>	<ul style="list-style-type: none"> <li>Recognition model like state-issued drivers license</li> </ul>
	Merits of <b>Limited</b> Licensure	Merits of <b>Unlimited</b> Licensure	
<b>S P E C I E S</b>	<p>Advantages</p> <ul style="list-style-type: none"> <li>State-by-state defined</li> <li>Streamline education                             <ul style="list-style-type: none"> <li>Less time</li> <li>Less money</li> </ul> </li> <li>Public protection</li> </ul> <p>Disadvantages</p> <ul style="list-style-type: none"> <li>Disrupts current model</li> <li>Much greater cost/lower availability</li> <li>Would need to be continually redefined</li> <li>Travel costs to out-of-state Centers of Excellence</li> <li>What about comparative disciplines – ophthalmologists, radiologists?</li> </ul> <p>Big discussion around opportunity for licensure (limited scope) of paraprofessionals (PA equivalent) to work with veterinarians</p>	<ul style="list-style-type: none"> <li>Allows self-selection &amp; flexibility of practice scope, career redirection</li> <li>“Protect” current generalist CVMs’ curriculum</li> <li>* Flexible approach – stable over long term</li> <li>Adaptable – ongoing curricular development over time</li> </ul>	<ul style="list-style-type: none"> <li>Unlimited licensure</li> </ul>

<b>Are There Better Ways to Measure the Competencies of a DVM?</b>	
<ul style="list-style-type: none"> <li>• Conditions for license renewal – focused clinical exam – within scope of practice</li> <li>• Competency assurance testing for licence renewal</li> <li>• Include ability to identify limitations (self, know when to refer, etc.)</li> </ul>	
<b>Are there areas of uncertainty in your deliberations, where more data/research would enable a more robust recommendation?</b>	
<ul style="list-style-type: none"> <li>• * Competency Assurance                             <ul style="list-style-type: none"> <li>○ Ways to measure incompetency &amp; to offer remediation/retraining</li> <li>○ Determine level (prevalence) of competency/incompetence</li> </ul> </li> </ul>	

## 11.0 Accreditation, Testing & Licensure Panel: Feedback and Discussion

**Dr. Linda Blythe, Chair, NVBME**

**Dr. Jim Brace, Incoming Chair, AVMA College of Education**

**Dr. Bruce Louderback, President, AAVSB**

Drs. Blythe, Brace and Louderback agreed to participate in a panel on accreditation, testing and licensure as NAVMEC volunteers. Their statements are to be considered as their personal opinions and not the official positions of their organization. Panel members first gave their personal thoughts on the recommendations coming out of the breakout session on accreditation, testing and licensure. A plenary discussion followed.

Accreditation, Testing & Licensure Panel	
Louderback	<ul style="list-style-type: none"> <li>• Difficult to speak for each state board-- the issue of money always comes up for the states, and we haven't really discussed. If the states could fit the new concepts into their budgets, then I think they have a lot of possibility of being implemented.</li> <li>• Menu-driven NAVLE has some good possibilities, if we can find a way to enforce it and the cost isn't prohibitive.</li> </ul>
Brace	<ul style="list-style-type: none"> <li>• Want to emphasize the importance of specifics in phrasing the standards and how that can drive or prohibit change.</li> <li>• Using the standards to create change is an open avenue</li> <li>• He knows the CoE would be open to a proposal and it would be carefully discussed. Paying attention to words would be critical.</li> <li>• Many of the NAVMEC competencies already fit well within the CoE standards.</li> <li>• Recommendations need to be best for Veterinary Medicine education.</li> </ul>
Blythe	<ul style="list-style-type: none"> <li>• NVBME is a non-profit organization that creates verifiable tests.</li> <li>• Our client is state boards. We respond to the stated needs of state boards. We reach out to see what our customers/clients want, keeping in mind what schools are doing</li> <li>• Personally don't think menu-driven NAVLE is a good idea; it would be hard to sell to 50 state boards.</li> <li>• Would rather see – if you want a higher quality, species-specific competency, move it to the junior year; can track there.</li> <li>• Leave the NAVLE as is – this keeps state board happy, as determined by job analysis and employers</li> <li>• Add a second test for species; make it more difficult.</li> </ul>
Q.	• Outcomes assessment looks at what has already been done. It can limit flexibility in bringing in new directions. Please comment.
Brace	• Not sure it limits the flexibility for new programs. If you want to start something new, develop a new outcome for what you are aiming at.
Q.	• Looking at budgets, we might have to drop things ...
Brace	• He knows of a college that is working closely with the animal science faculty to provide students with the information needed. It's just a different way of looking at the distributive model.
Q.	• Looking down the road, how willing are you going to be to make major changes ... to participate with the colleges to forging new directions?
Louderback	• Is sure that AAVSB would be willing to work with the colleges to a certain extent, but AAVSB is always held accountable to the state licensing boards. We don't make policy. Has the overall feeling that AAVSB is big for change ... 'change comes one funeral at a time, hope it's not ours"
Brace	• Can just speak for myself, but I think the answer is yes – the Council is interested in helping veterinarians be the best can be. I know the Council would look at any proposal, although it might ask for more information or point to specific issues that need to be resolved.

### Accreditation, Testing & Licensure Panel

Blythe	<ul style="list-style-type: none"> <li>Consulting with the state boards is part of the NVBME strategic plan. They take our advice, but are independent. If NAVMEC wants to recommend going to a 5-year curriculum, I don't think it's a problem with the boards if students can still pass the test. If you want to try something different, we would look at how we could help. NVBME could help you go to the boards to try to sell that program. Don't see licensing boards or testing organizations as an impediment.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>10 to 20% of veterinarians are board-certified. Many of these go on to work across species in a specialty (e.g. dermatology, ophthalmology). Is anyone addressing this issue in the discussions of limited licensing? What kind of license would they get? What do you do with people who work with multiple species and who work across state lines?</li> </ul>
Louderback	<ul style="list-style-type: none"> <li>This hasn't been discussed. Personally, I don't like limited licensing. State boards look at board-certified veterinarians as being a step above other vets. Can they work across species? Think the answer is yes.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>I've heard that you are sympathetic to these ideas. The question is would you actively participate in these changes? Is it a conflict of interest for you to participate in this?</li> </ul>
Brace	<ul style="list-style-type: none"> <li>Don't believe CoE would participate in telling schools how to teach their curriculum. We do want to allow colleges to be flexible; we would be open to providing suggestions/comments about what we could live with etc.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>What if we were developing a major curricular thrust, could I call you to help us work through some of the issues? Would this be a conflict of interest?</li> </ul>
Brace	<ul style="list-style-type: none"> <li>Yes, this would be a conflict of interest. <u>NOTE.</u> Dr. Brace later checked with other CoE members and reported the next day that this would NOT be a conflict of interest.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>If NAVMEC came up with a diversity recommendation – say that a certain per cent of the student body had to be from underrepresented populations – would the CoE be willing to put a prescriptive requirement for diversity within the standards?</li> </ul>
Brace	<ul style="list-style-type: none"> <li>For myself, as strongly as I believe in the need for diversity in the profession, I would say no, this would not be appropriate, or even feasible. I would leave this up to the colleges to find ways to accomplish this on their own.</li> </ul>

## 12.0 Stimulus Presentations: Change Management and Implementation

### 12.1 Virtual Question & Answer Session with Dr. John Kotter

**Dr. John Kotter**  
**Emeritus Professor of Leadership**  
**Harvard Business School**  
**Chief Research Officer, Kotter International**

#### Introduction

The rate of change and globalization has implications for all organizations. More and more, we have to make larger leaps to do something that is important. Most people are terrible at this kind of change because it is so unfamiliar. However, some people are quite good at it. Our company has explored this pattern and this is what is on the handout. These are inspiring people and stories.

<b>Dr. John Kotter – Change Management Q&amp;A</b>	
Q.	<ul style="list-style-type: none"> <li>Your books focus on the corporate environment with a clear hierarchy. Do you perceive that our group, which is loosely gathered from many stakeholder entities, can apply this?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>Every group thinks it is more difficult for them. Our original work was 90% in the corporate environment. I have many students not from the corporate world; I constantly ask them about their experience. We see the same problems, same issues, the same challenges; it's just the details that are different.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>We've heard the phrase co-opetition – working together with organizations that are also our competitors. How can your ideas deal with this situation?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>In corporate organizations, the competition is internal for funds. However, the way you pull it all together is same: at an appropriate time in the process you get everyone to create, understand and believe in a vision that is broader than any of the individual pieces; something in which they can all see the wisdom. The competition continues, but it doesn't drag you down because of the commitment to the whole over the individual parts. You have to get that broader vision and buy-in.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>How will globalization impact academia?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>It is already having an impact. Twenty years ago, 20 percent of participants in Harvard's executive program came from outside the U.S. Today, that number is 70 per cent. This creates a different environment for teaching staff and the program to achieve its goals.</li> <li>Globalization creates interdependence between countries, organizations or universities. This has implications for what the critical topics are and how you need to think about things. The fact that I'm tied into the guy from Australia has implications for how we interact.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>The main problem we have in academia is the academics – how to change their attitude. The first things I try to do is to create a sense of optimism; it's more of an empathetic approach. Your approach is more do, do, do.</li> </ul>

<b>Dr. John Kotter – Change Management Q&amp;A</b>	
Kotter	<ul style="list-style-type: none"> <li>Empathetic falls into the category of the heart rather than the mind. In most organizations, they try to get people on board with business cases. This is all one side of the mind – stats, charts etc. But you need to relate to people and pull them that way. This is difficult for those of us who have been taught to function on the science side, who has been taught that the only way to ‘sell’ things is by using numbers. I wonder if the connection has to be made more at the emotional level. Ultimately people do amazing things because somehow they emotionally connect to it (although it does have to be logical). If you notice, the expression is “hearts and mind;” the positioning of heart before mind is not accidental.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>I have been interested in the book, ‘Nudge’. The concept is that most of the choices people have to make are so complex they just try to forget about them. But, if you put the choice/solution out there, make it simple, and nudge people, you can perhaps start the change. Please comment on the effectiveness of this approach and how it relates to your model.</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>The evidence is overwhelming that it helps if you reduce complexity to something simple. People can latch on to the idea and discussions don’t degenerate. If you look at history, all great leaders have had a capacity to pull out central, simple pieces from the complex issue and insert that into the conversation. I like the idea of nudging rather than pushing. The more people want to move by themselves because they have incorporated it into their hearts and minds, the more powerful the drive for change. The more you can create a “want-to change” system rather than a “have-to change” system, the faster change will happen.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>Someone mentioned that the barrier to change is individuals. Often when you get group together you get “group thought” or the fear of speaking one’s mind in the group. How do you overcome this?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>Group dynamics can be a big barrier. What helps is to work with a group enough that they start to have the kind of dynamics that you want – getting away from speeches and posturing and moving towards honest sharing of information, to trust and for people willing to speak up (not just shooting ideas down). For the central group that is helping to guide the process, this is essential. Then modeling this set of behaviors can be important among groups and from one group to another. As members of a guiding coalition, once the larger group can see the positive effect of good group dynamics, they will adopt.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>Please comment on generational differences between boomers, Gen X’ers and Gen Y-ers.</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>Each has a different reality and it is worth taking this into account, especially in your communications. The biggest barrier is age. I risk making a generalization here, but people in their late, middle and early careers act differently when it comes to change. Younger people are more willing to be aggressive in giving change a chance and in volunteering to make it happen. Those over 30 seem to have more to gain by holding on to what we’ve already got.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>All organizations need to change, but not all of them have a burning platform. What strategies can you suggest?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>You can start by energizing the organization. Basically, there are two ways: threat or opportunity. Usually threat gets their attention first. But if you can convert it over to an opportunity, it is more powerful over the long term. If everything is going well, then what’s the point? The more you can say: we are doing great, but let’s be honest, history is full of examples that point to the need to keep adapting. If you can say this to yourself and to your confidants, usually you can look together &amp; find a big opportunity that might be hidden. This helps keep the organization from stagnating. It helps raise people out of their complacency. You can almost always find this. Actually, I don’t like the metaphor of the burning platform.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>Do you have more tips on how to engage hearts and minds to get that science and business practice out to possibly change the political climate?</li> </ul>

<b>Dr. John Kotter – Change Management Q&amp;A</b>	
Kotter	<ul style="list-style-type: none"> <li>• People are people. If you can reach in to find the essential component in all of us – to appeal to both sides of the head – you can get more done. Exactly what that is, varies on the situation. Everyone wants to succeed, to stay out of trouble. Everyone would like to be a hero. We have a lot of shared values around “doing good” and “justice.” It’s a matter of clarifying what those pieces are and of finding ways to draw that out.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>• Have you found that the needs of the customer can get us buy-in from the hearts of deliverers? Do you find this in universities?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>• I think that wanting to make a difference is a powerful motivator. For example, I was working with a university in which the administrators wanted to change the delivery of education in the science faculty. When they spoke about it, they wanted to create something they could measure more clearly. Through our conversation, they began to think in larger terms ... that the sciences are becoming increasingly important to economy, society ... that change would make a difference to their country, children, grandchildren ... that it would create wealth and health services etc ... that they were really interested in helping the university be a role model to other universities...to create to more people who are better trained to deal with the 21<sup>st</sup> century world. He watched the conversation go from detail to the broader importance that appealed to them as human beings. Ultimately, they went back and shifted the nature of the conversation at the university. We all want to make a difference. On the surface, we are all beaten down, but if you can scrape a bit of it off, there’s still an energy and power that is amazing!</li> </ul>
Q.	<ul style="list-style-type: none"> <li>• Do you have a strategy for communicating when people don’t pay attention until it actually affects them?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>• What does 10x communication mean? Look for endless platforms for communication. Increasingly this means the Internet. You are looking for constant communication. Try to sneak something into the agenda at every meeting etc; seize all the opportunities, big and small. You need to get enough platforms and enough people willing to spread the message, using formal channels, but also incorporating it into everyday conversations, at every opportunity.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>• Left to our own devices, we may not be able to make this change happen. What would the role of a consultant be?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>• You don’t need some very smart people so you can tell them the problem and have them give you a report. You can get help from outside, but not that model. The help should be helping YOU do it – with some guidance, information and inspiration when you need it; not power point slides and thick reports.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>• As a student, how do I bring the ideas I learned here back to my student leaders at the university?</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>• Recommend you take a look at the fable I wrote about the change process (this is a communications vehicle outside of the usual university publications, based on neurology). The key character is a lower level person. Read that book and ask: who’s my Alice? That will give you more ideas than anything else* (*Our Iceberg is Melting is the book Dr Kotter referenced)</li> </ul>
Q.	<ul style="list-style-type: none"> <li>• Agree with your comment about age being one of the largest barriers to change. How can those of us in late-career reach out to younger people? They are busy and this is hard to do.</li> </ul>
Kotter	<ul style="list-style-type: none"> <li>• One of the best ways to stay energized is to keep young people around us. The more we can demonstrate through our own behaviour that we are excited about the future and that institutions can change (and how), the better we can help students and help society. We have to show that we do believe this is possible. The more this empowers us, the more people feel empowered to step up to the plate – even if we don’t have to have formal authority to make a difference. We do this by keeping our selves vibrant and through role modeling.</li> </ul>
Q.	<ul style="list-style-type: none"> <li>• Please share your thoughts on how to create a guiding group.</li> </ul>

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**Dr. John Kotter – Change Management Q&A**

Kotter	<ul style="list-style-type: none"><li>• There isn't a single formula. If the group is large enough, you can get a core group of people who feel strongly enough to put in the time, even with all the pressures on their time. These people provide the engine and then sub-groups start to hook in with meaningful roles. Most typically this is around 10 to 20 people. You don't need 500 people in a room trying to be a group.</li></ul>
Kotter	<ul style="list-style-type: none"><li>• Final thought: anyone who is willing to tackle some big institutional change problem for now and for the future is very bold, heroic and marvelous!</li></ul>

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## 12.2 Imperative!

**Dr. Peter Eyre**  
**Dean Emeritus,**  
**VA-MD Regional College of Veterinary Medicine**

*Dr. Eyre used a lighthearted approach to stress the importance of organizational and individual commitment to moving the profession forward. Everyone in the room will need to act as ambassadors for the NAVMEC recommendations. Key next steps included a broad communications strategy, resources for implementation and accountability for the process. He also suggested that AAVMC get the ball rolling by launching an Enlightenment Award to encourage the development of innovative, pilot projects.*

Q.	The change you envision is the overnight kind. A lot of changes have already taken place; they just haven't been dramatic or had much fanfare.
Eyre	This kind of incremental change is going to happen anyway. With NAVMEC, we are looking for a big shift, a cultural change, something that will happen internationally. PEW was different – it generated some good stuff. KPMG stimulated good stuff also. We've just never got together as an academic organization before to make significant changes like tracking or limited licensure. What does this kind of change require?
Q.	The challenge for young people is to convince the deans and to get a consensus. We need to harness the power of the students and student organizations. If we can connect with them and connect their voices to NAVMEC and AAVMC and then approach the deans, we could have an impact. At the moment NAVMEC is a top-down initiative. We need a bottom-up approach at same time.
Eyre	This is a good idea. Convincing the deans might be easier than convincing the faculty. AAVMC has to market this to the schools – meet with the deans and faculty separately, and then have a general meeting with the deans, faculty and students.
Q.	I hear that the biggest barrier is that faculty own the curricula and won't change. But I also hear that change is a matter of leadership, and that it can happen. What are your thoughts?
Eyre	Academic culture is a barrier to change. If you organize a meeting with the deans in Washington, not much will happen. AAVMC has to OWN this by providing leadership, raising money and visiting each college separately to make the case for implementation. You need to be there with the deans when they go home to sell it.
Comment	We should give a mini-award for the 'new concept' proposal from Meeting 2, and the Mary Beth Leininger prize should go to the people who first implement that concept.

### ***12.3 Plenary Discussion – Implementation Ideas***

To close the meeting, participants engaged in a plenary conversation around implementation. This included discussion of environmental factors and the extent to which individuals and organizations would be willing to provide financial and in-kind support towards forwarding the implementation process. A digital voting system was used to gather participant feedback in several areas.

Topics included:

- Is there a sense of urgency for change within the veterinary profession? Where is this strongest?
- Is there a sense of urgency within academia? Among students and recent graduates?
- What is the greatest reason for change?
- What would be the best method to communicate NAVMEC's recommendations?
- Which organization would be most effective in leading the NAVMEC implementation?
- What would be the best method to achieve buy-in to the NAVMEC recommendations?
- Would participants be personally willing to communicate the NAVMEC recommendations?
- Would participants be willing to financially support the NAVMEC implementation?

### ***12.4 Student Perspective***

**Mr. Aaron Gibbons**  
**President**  
**Student AVMA**

*Mr. Gibbons noted that this last NAVMEC meeting has made him feel the most positive. The Kotter presentation had made him realize that we have the skill sets we need to make this change happen. We need to change the culture – to make it more positive about the future of the veterinary medicine profession. We need to understand some of the concepts of servant-leadership as well as some of the basic business/leadership skills that other professions use regularly. As mentors, the older members of the profession have to keep their practices financially viable so there are businesses that graduates can buy. Students are ready to help and to be engaged. They just need help from the older members of the profession, and a sense of direction.*

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## 13.0 Closing Remarks

**Dr. Willie M. Reed**  
**Dean, School of Veterinary Medicine, Purdue University,**  
**President-elect, AAVMC**  
**Member, Board of Directors, NAVMEC**

*Noting the strong support and interest NAVMEC has generated, Dr. Reed stressed that this is the point where the heavy lifting really begins. Not everyone will accept what we produce, but that doesn't mean it isn't the right thing to do. Although it's not clear what the next steps will be, he is certain that NAVMEC will carry the message forward that there is a strong sense that our profession needs to change. As incoming AAVMC president, he assured participants that the NAVMEC report won't 'sit on the shelf'. Dr. Reed thanked Dr. Mary Beth Leininger for her energetic leadership, as well as Dr. Ken Andrews, the AAVMC, the sponsors and participants for their enthusiastic support of the NAVMEC process.*

**Dr. Mary Beth Leininger**  
**NAVMEC Project Director**

*Dr. Leininger emphasized that the outcome of NAVMEC will be the product of all of us working together. We all have the responsibility to communicate the NAVMEC message and to convince others of its importance to the profession. This starts now. We all share the same goal: wanting to achieve something lasting for our profession so veterinary medicine can be all that it has the potential to be for the future.*

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