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

Executive Summary

Introduction

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.

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	• Possibly rename as 'Veterinary Medical Proficiency', teach using comparative techniques • Graduates may be 'Practice/Career-Ready', but develop proficiency after graduation • More attention to the use of technology tools for diagnosis
Interpersonal Communication	• Non-technical SKAs to be integrated throughout all years of DVM education • Communications competency to be assessed pre-admission • Research is needed to define reliable assessment techniques • Include challenging issues such as delivering bad news or disclosing errors
Collaboration	• A desirable pre-requisite, but these skills can also be taught to DVMs • Best delivered and assessed using carefully designed team-based activities
Management (self, team, systems)	• Move to combination of didactic learning & practicum/problem-based learning • Seek input from employers on specific skill needs
Public Health/One Health	• Include knowledge of ecosystem health and risk analysis/communications • All areas involved (e.g. parasitology, internal medicine,epidemiology, etc) via case studies • Needs more research on outcomes assessment
Lifelong Learning/Scholarship/Research	• Increased focus on self-directed learning while at CVM (easier to continue) • Provide guidance on broader on-line tools, including social media
Ethical Professional Leadership	• Should Ethics and Professional Leadership be separated in two separate competencies? • Consider using as a pre-requisite, and start integrating into courses in year #1 • Use of faculty from other schools on campus, e.g. Law, Business
Adaptability to Changing Environments	• Is this really a separate competency? Should it be incorporated into other competencies – leadership, communications, ethics, lifelong learning?

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) Jim Wilson: Student Debt and Starting Salaries- Current ratio is 2:1 debt to salary

2) 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) Theresa Bernardo: Delivery Tools and Information Overload- Develop skills in Information Management using Wikiversity 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:

Cost of Education & Sources of Revenue (2 teams)	• Is there a workable model involving centers of emphasis/excellence and/or sharing of course materials so that all CVMs benefit? • Advocate charitable donation status for CVMs, on income tax returns • Coordinated strategic fund-raising, taking advantage of times when public health issues (emergencies) are at the fore • Need comparative research on: costs of distance learning; effectiveness of PR initiatives; institutional partnering in other professions
Student Debt (2 teams)	• DVMs graduate "career-ready", with tools for producing higher income, e.g. preceptorship during final year (especially for private practice) • Universities agree with students to limit tuition increases during four years of professional program • Restructuring of loan program – debt forgiveness under set criteria(e.g., filling critical vacancies in food supply and safety careers) • Further analysis needed on the viability of a shorter overall length of education for DVMs, including pre-vet
Admission Pre-Requisites & Processes	• Broader criteria; less weight on standardized test/GPA • Select for skills that will generate success within the profession, not just during school environment • Start building evidence regarding relationship between pre-requisites and life success (not just school success) • Standardize: every CVM has the same entry requirements
Diversity	• Include training in cultural competency for faculty/staff/students • Integrate into curriculum through courses/electives/requisites, service projects • Engage students and practitioners in recruitment of more diverse students
Delivery Methods & Learning Styles	• 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 • A common thread running through the discussion about curriculum is integration of non-technical competencies into all courses
Information Overload	• Teach the things students can't look up on the Internet, such as describing actual clinical cases of the disease/condition being taught • Teach "information literacy" so students can assess the quality and applicability of what is found in Web searches • Institute a review of licensure testing: is memorizing facts valid in the Internet-era?

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)	- 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. - For example, some of the standards had to be interpreted in a specific way to connect with a core competence (e.g. collaboration) - Incorporate the NAVMEC competency table directly into the Standards for clarity.
Testing: Clinical	- Change 'Practice Ready' to 'Career Ready' and define what it means - NAVLE is currently effective in testing knowledge and clinical problem-solving skills for entry-level, private clinical practice in a variety of animal species
Testing: Public Health	- All students need exposure to public health, food safety, emergency response, risk assessment, regulatory framework - Consider integrating Public Health questions into all aspects of NAVLE
Testing: SKAs	- Introduce SKAs to students during orientation, map out the curriculum to show where they will have opportunities to learn about/practice SKAs - Portfolio – required, based on self-directed process throughout the curriculum, include logs/diaries/self-assessment, business project
Licensure (3 teams)	- Inter-state recognition of licensure - based on Driver's License model - Continue with unlimited licensure – enabling career flexibility

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.

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