



CMU-UMN

Veterinary Education Twinning Project

June 2015

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Global Health Institute 2015

The 2015 Global Health Institute held in Chiang Mai Thailand in February, provided participants the opportunity to concentrate on the areas of emerging and re-emerging diseases, antimicrobial resistance, application of risk analysis, epidemiological tools and application, food safety and hygiene and One Health Education. Throughout the three week institute a number of the specific and advanced competencies as contained in the OIE recommendations on the Competencies of graduating veterinarians ('Day 1 graduates') to assure National Veterinary Services of quality, and the OIE guidelines on Veterinary Education Core Curriculum were highlighted. Teaching teams pairing UMN and CMU faculty members led 3 week-long courses on One Health Leadership, Risk Analysis and Farm to Table. In the first week, the One Health Leadership training program focused on antimicrobial resistance with an emphasis on communication skills, interdisciplinary teamwork and the importance of public-private-academic partnerships. In the third week, the course on risk analysis focused on quantitative methods in risk assessment and best practices in risk communication culminating with group presentations on case-studies of food products of interest in Thailand. The Farm-to-Table Field Learning Experience had a broad focus, including discussion of various aspects of the animal food system (poultry, swine, and cattle) in northern Thailand. Both of the week three courses grew out of previous faculty exchanges that allowed CMU teaching staff to observe UMN short course delivery. More than 45 government officials, university staff and private sector leaders participated including veterinarians, physicians and other agriculture and public health specialists from Cambodia, China, Laos, Myanmar and Vietnam.



Top: Dean Kwanchai and Dr. Sreevatsan who delivered one of the conferences keynote speeches.

Bottom: Panel discussion (Drs. Baumann, Wells and Punyapornwithaya, at second week of GHI, Researchers Conference of "Emerging disease at convergence of animal, human and environment health."

Assuring high quality National Veterinary Services through the alignment of veterinary educational curriculum with OIE recommendations on competencies of graduating veterinarians is the overarching objective of this OIE sponsored Twinning Project.

GHI 2015 continued



Teambuilding exercise in One Health Leadership Course.



Participants show their excitement of the Food Safety Risk Analysis course.



Farm to Table course visits a Tilapia farm.



Farm to Table course at egg collection center.

Enhancing the power of videos as teaching tools

Videos can be effective tools for introducing new concepts and illustrating the application of skills. However, a video of a 50 minute lecture is likely to be boring. A twinning curriculum workshop February 10, 2015 explored the use of videos as part of a class. Teaching staff from CMU and UMN were joined by CMU students to discuss best practices for making videos more interesting and educational.

1. Use multiple speakers and modulate voices
2. Add a mix of comments, word slides, illustrations and animation
3. Student-produced videos provide an excellent small team activity for summarizing key learnings. Some of these videos may be useful for reuse in subsequent classes.

Podcasts and other types of voice recording may allow students to listen while driving or exercising.

Lessons learned from OIE Veterinary Educational Twinning Projects

In March 2015, Dr. Siriporn Peansukmaee served on a panel at the annual Association of American Veterinary Medical Colleges (AAVMC) conference to provide an update on the Twinning project. AAVMC promoted the session with this introduction: Under the OIE's Veterinary Education Twinning Programme, launched in 2013, OIE twinning projects are off to a strong start with projects underway in Thailand, Kazakhstan and Bangladesh, involving AAVMC member schools. The OIE is currently reviewing expressions of interest from other AAVMC members for twinning in the Middle East, Africa, Central and Southeast Asia. Progress to date demonstrates how multiple approaches are being used to improve curriculum and the teaching of veterinary education in each country. As tools to facilitate this progress, twinning partners are using the OIE Recommendations on the Competencies of graduating veterinarians ('Day 1 graduates') to assure National Veterinary Services of quality, the OIE Guidelines on Veterinary Education Core Curriculum and the OIE Guide to Veterinary Education Twinning Projects. This session will provide an update on twinning projects, lessons learned, and opportunities for additional members to be involved in the programme.

Faculty Exchanges

Six CMU faculty members spent time at UMN and seven UMN faculty visited CMU between January and June, 2015. Professional development activities, opportunities to observe different teaching styles and participate in short courses complemented the intercultural experiences. The opportunity to spend substantial amounts of time working together through these exchanges has strengthening interpersonal relationships and catalyzed the twinning project. The success of these faculty exchanges is due in part to two best practices: establishing specific objectives for each exchange prior to the faculty member traveling, and development of an orientation packet to help the exchange participants acclimate to a different culture, currency and transportation system! Co-teaching courses at CMU and the CMU faculty exchanges providing seminars for UMN have increased the value of the exchanges. Both CMU and UMN have adopted a spirit of continuous improvement through these exchanges, ending each one with a debriefing session that captures the highlights as well as suggestions for improvement in future exchanges.

Left: Chalita Jainonthee and Duangporn Pichpol with Minnesota State Capital in background.

Bottom left: Siriporn Peansukmaee and Katie Thomas at the 2015 Student American Veterinary Medical Association Symposium held in Minnesota.

Bottom right: Areerath Akatvipat giving presentation "A look inside the veterinary teaching hospital of Chiang Mai University"



Joining Resources for Research

Stemming from the Twinning Project, and the network of veterinary expertise formed, three new joint research projects between CMU and UMN have been selected for funding. A total of 27 faculty researchers between the two universities will be teaming up to tackle projects. Each University is contributing \$30,000. These funds will be divided among the projects with travel costs between the schools made available by the OIE Twinning Project.

- **Antimicrobial Stewardship in Companion Animal Practice** project will raise awareness of antimicrobial resistance and provide guidance to veterinarians on reducing antibiotic use and antibiotic resistant organisms in companion animals.
- **Epidemiology of bovine tuberculosis in Chiang Mai and Lamphun provinces, Thailand** project plans to improve understanding of parameters influencing detection and control of transmission of tuberculosis (TB) on dairy farms in a TB endemic region in Southeast Asia.
- **Risk Assessment of *Campylobacter jejuni* in chicken meat production in Northern Thailand** project will conduct a quantitative risk assessment of *Campylobacter jejuni* infection from local consumption of chicken meat at retail markets in Northern Thailand, as *Campylobacter jejuni* is a leading cause of enteric infection in most developed and developing countries.

Flipping the classroom

Dr. Terdsak Yano completely revised his fall 2014 swine diseases course using a flipped classroom and active learning to increase emphasis on transboundary animal diseases, one of the OIE Day 1 competencies. A 'flipped classroom' means that students are provided readings and videos to watch before class. Active learning involves activities that require student participation and engagement. Five veterinary students provided feedback on the redesigned course during a faculty workshop in February 2015.

Overall the students enjoyed the active learning. Providing reading and videos ahead of the class was appreciated. Active learning helped the students better understand concepts and apply them to other situations. Active learning also allowed the faculty member as facilitator and coach rather than teacher. Furthermore, small group activities provided peer pressure for all the students to prepare before class.

The students encouraged incorporation of active learning early in the curriculum. They pointed out that some classes are more suitable for active learning than others. Sharing personal experiences is a good way to engage students. For example, each family has different style of caring for their dog, allowing students to share their own experiences.

Students also pointed out the advantage of using some lecture as part of each course. When pre-readings or videos are required before class, they encouraged teachers to include in-class time for answering questions and explaining concepts that may not be clear in the videos and readings.

Student feedback has proven extremely valuable for continuous improvement of the curriculum including both classroom activities and final year rotations.

Veterinary Education Twinning's aims and objectives CMU and UMN:

Our principal objectives are to:

- Strengthen effective veterinary services by aligning veterinary education within the framework of the OIE PVS pathway
- Improve the veterinary workforce by ensuring that new veterinary graduates demonstrate compliance with OIE Recommendations on the Competencies of Graduating Veterinarians ('Day 1 Graduates') to assure the high quality of national Veterinary Services (Day 1 competencies)
- Deliver continuing professional development for veterinarians working in both public and private components of National Veterinary Services in order to advance knowledge and skills as outlined in the advanced competencies developed by OIE
- Promote the One Health approach for interdisciplinary collaboration in addressing health issues at the human, animal, and environmental interface