



CMU-UMN Veterinary Education Twinning Project

December 2015

Reporting Period:
7/01/2015-12/31/2015



Veterinary Student Exchanges # 3 & 4

Five Chiang Mai University veterinary students and 2 instructors visited the University Minnesota July 6-24, 2015. They joined five UMN veterinary students, 1 resident coordinator and 1 instructor to complete the veterinary public health (VPH) rotation and field activities in Minnesota. Three weeks later, the UMN cohort visited Thailand so that the same group could complete the three week Veterinary Public Health rotation at Chiang Mai University.



CMU Veterinary students experience community outreach through a unique opportunity to lead an anatomical 'tour' to elementary children visiting the University of Minnesota Veterinary Anatomy Laboratory. The purpose was for CMU students to gain communication skills, both speaking to non-experts, and doing so in their non-native language.

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

Student Exchanges, Curriculum Changes

Usually the focus is individual experiences when talking about student exchanges. While the students who spent six weeks together last summer found the experience powerful, there's another part of the story that will have much longer lasting impact on Chiang Mai University and University of Minnesota. The bi-lateral exchanges in this project involve faculty teaching staff joining the students and their collective experience is changing the curricula at both schools.

Twinning student exchanges center on students and faculty members completing the veterinary public health rotation at each campus. By the end of the six weeks, both students and faculty can compare and contrast the two experiences. As one University of Minnesota student observed, "we cover much more material and it's focused on more individualized learning while they (CMU) provide more opportunity to apply what they learn in team-based field experiences". At the end of the time together, the students recommended a mixture of both approaches.

"Seeing is believing". Faculty members made changes to their curricula as a result of the experience. Chiang Mai teaching staff incorporated student oral presentations to slaughter plant management after student teams completed a HACCP audit and in-plant sampling. University of Minnesota faculty members were so impressed with the CMU approach that they added a food safety oriented team activity similar to that observed in Thailand in order to foster critical thinking through student interaction.

When faculty members accompany students in bi-lateral exchanges, the impacts are broad and long lasting. If you want to read more about the exchange, see the blog kept by Dr. Jessica Evanson, one of the veterinary public health residents who participated in student exchange #4.

<http://twinningstudentexchange.blogspot.com/>



Top Left: Bee Farm in Minnesota.
Third Left: Helping Paws, a Minnesota based assistance dog organization.

Bottom Left: 'Riding' the bull statue on UMN campus.
Right: CMU and UMN student exchange participants in Thailand.

Twining experiences shared at international symposium

Veterinary and Public Health Capacity Building for One Health Workforce was a major discussion topic at the 4th International Food Safety and Zoonoses Symposium in Chiang Mai, Thailand August 3-5, 2015. Dr. Trevor Ames, Dean of the UMN College of Veterinary Medicine, led a 2 hour session with his keynote address “Creating the Next Generation of Veterinary Public Health and Preventive Medicine Leaders”. Dr. Sukolrat Boonyayatra from CMU then shared an analysis of Veterinary Workforce in Thailand that stressed the need for more training in the OIE advanced competencies.

A panel discussion on Veterinary Educational Twining focused on the enhancement of OIE Day-One Competencies. Dr. Rutch Khattiya, who leads the OIE veterinary education twinning project for CMU joined Dr. Armando Hoet of Ohio State University to share lessons learned in the twinning projects. Dr. Hoet leads an OIE veterinary education project with Gondar University in Ethiopia. Several Gondar faculty members were in attendance as well as Chiang Mai and University of Minnesota faculty members.

The most important lessons learned to date?

1) successful twinning projects are built on strong relationships and mutual respect; 2) the importance of the OIE competencies must be explained to veterinary faculty members in order to get their engagement; and 3) changing veterinary curricula takes time, so twinning projects start with small steps to build momentum.



Veterinary students enjoying international symposium activities.



Veterinary Public Health Center for Asia Pacific team who organized the international symposium.



Panel discussion of OIE veterinary education twinning projects (from L to R: Dr. Rutch Khattiya, CMU; Dr. Will Hueston UMN; Dr. Trevor Ames UMN; and Dr. Armando Hoet OSU).



Dean Trevor Ames of UMN (front left) and Dean Khwanchai Kreasukon (front right) celebrate 2 years of twinning successes with some of the faculty members and exchange students involved.

Enhancing veterinary curricula

Both Chiang Mai University Faculty of Veterinary Medicine and the University of Minnesota College of Veterinary Medicine are strengthening their veterinary curricula by focusing more attention on the OIE Day 1 competencies. Veterinary students are receiving more instruction on animal welfare early in their studies and core concepts are reinforced later in clinical rotations like aquaculture health and public health.

Teaching staff are incorporating new concepts into their classes. For example, practice in oral communications have been added to the public health rotation at CMU. Veterinary students who complete a HACCP audit in a small meat processing plant now must provide verbal feedback to the owner as well as a written report. Dr. Areerath Akatvipat is talking more about zoonoses with her small animal clinic rotations thanks to her faculty exchange to UMN and participation in a short course "Surveillance of Zoonotic Pathogens in Animals" taught by Dr. Scott Wells in partnership with the State public health veterinarian for Minnesota, Dr. Joni Sheftel.

Twinning collaboration stimulating joint research success

The OIE veterinary education twinning project directly supports curriculum alignment with the OIE guidelines and the strengthening of teaching for the Day 1 competencies. In addition, the impact of the twinning project extends beyond curriculum enhancement. The resulting faculty collaboration also drives successful research collaboration even though no twinning funds can be used for research itself.

The strongest example to date involves joint research on the epidemiology of bovine tuberculosis (Tb).

Tuberculosis continues to be a concern for both the cattle health and public health in Thailand. Chiang Mai University researchers have access to farms with Tb test positive cattle and buffalo as well as the slaughter plants these animals are processed. Meanwhile University of Minnesota researchers have pioneered new diagnostic tests for bovine Tb and new epidemiological analysis tools even though Minnesota is free of cattle Tb.

The research collaboration involves CMU faculty collecting blood samples and questionnaire data from both affected and unaffected cattle and buffalo herds. To date, over 320 samples have been tested using a bovine TB ELISA, gamma interferon assay, and novel pks5 assay. Tissue samples also are collected from slaughter plants. Histopathology has been performed on more than 100 tissue samples to confirm the Tb lesions. Genomic DNA has been extracted from tissue samples in order to further characterize the Tb agent. Risk factors for bovine TB in northern Thailand included purchasing cows from dealers (Odds Ratio = 5.85; 95% Confidence Interval = 1.66–20.58). Purchasing cattle from dealers is risky to cattle producers because of lack of knowledge about the farm of origin, including whether the cows had originated from TB-infected herds.

The CMU-UMN research synergy is exciting. Additional testing and data analysis are stimulated through faculty and graduate student exchanges and several joint manuscripts being prepared for publication.

Global Health Institute 2016

Faculty of Veterinary Medicine
Chiang Mai University, Thailand
15-26 February 2016
<http://vphcap.wix.com/ghit2016>

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

Our principal objectives are to:

- Strengthen effective veterinary services by aligning veterinary education with the OIE guidelines on veterinary education core curriculum 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