

# University of Gondar The Ohio State University OIE Veterinary Education Twinning Program

1<sup>st</sup> Annual Report 2016

Reporting period:  
06/01/2015 – 06/31/2016



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# UoG-OSU Twinning Program

## UoG–Ohio State Twinning Program Objectives:

- Strengthen Ethiopia’s Veterinary Services by aligning the DVM curriculum with the OIE Day 1 Veterinary Competencies and OIE guidelines on Veterinary Education Core Curriculum
- Develop a uniformed assessment tool to identify training gaps in veterinary education
- Increase the number of competent, newly trained veterinarians whose education fulfil the OIE Day 1 Competencies to promote and protect the health of people, animals, and the environment
- Provide continuing education and professional development opportunities to improve the current veterinary workforce



*Ethiopia has the largest livestock population in Africa with an estimated 52.1 million cattle, 24.2 million sheep, and 22.6 million goats*

## The four objectives will be accomplished by:

- Assessing UoG–Ohio State current DVM degree program curricula and teaching capacity in relation to the OIE’s Day 1 Competencies and Veterinary Education Core Curriculum
- Prioritizing the identified gaps in the veterinary curriculum, pedagogy, and other academic areas to create a comprehensive action plan to best address these areas
- Developing courses, pedagogical tools, and training programs to fulfill Day 1 Competencies
- Faculty and student exchange for training, collaborative research, educational material development, and direct participation in projects
- Cross-twinning workshops to promote international collaboration and educational models
- Establishing long-term continuing education and professional training programs

### Task 1: Curriculum Assessment, Development, & Evaluation



### Task 2: Human Resource Development & Exchange



## Curriculum Assessment:

The first phase of this project is to perform a curriculum evaluation based on the OIE Day 1 Veterinary Competencies and the Veterinary Core Curriculum. This will allow the identification of any potential gaps and areas of improvement in the veterinary curriculum, pedagogy, and other academic areas. This phase has already been initiated and contains three steps: a faculty retreat, a curriculum review, and a site visit. Details will be provided on the next pages.

**Assessing Today to Improve Tomorrow**

# Annual Report

## Previous Activities

These are some of the previous activities that UoG–Ohio State Twinning Program described in detail in the first interim report (06/01/2015 – 01/31/2016).

### I. OIE Educational Twinning Session

The UoG-OSU Twinning partners participated in a panel titled “Veterinary Educational Twinning: Implementing OIE Day 1 Competencies from Local to Global,” which took place during the 4<sup>th</sup> Food Safety and Zoonoses Symposium, August 4<sup>th</sup> 2015 in Chiang Mai, Thailand. The panel introduced the OIE Twinning Program to participants from veterinary colleges across the Asian Pacific region.



### II. Planning Meeting

On August 5<sup>th</sup> 2015, the UoG-OSU Twinning partners participated in an extensive planning meeting to organize the different phases and activities of the OIE Twinning Program. Top leadership of the University of Gondar also joined the meeting and provided strong support to this initiative including matching funds to expand the impact of the Twinning Program throughout the country and the region. This materialized during the recent Faculty Retreat, where the UoG covered the expenses to include Deans from other veterinary schools in Ethiopia (see details ahead).

### III. Cross Twinning

Representatives from UoG and Ohio State met with faculty from Chiang Mai University to learn about their experiences with the Twinning Program. The conversation was focused on their approach and implementation of OIE Day 1 specific and advanced competencies and Veterinary Education Core Curriculum. In addition, the UoG-Ohio State team was interested in learning about the impact of this program on the quality of their graduates and their National Veterinary Services.



### IV. International Congress on Pathogens at the Human-Animal Interface (ICOPHAI)

UoG Faculty engaged with international experts in emerging zoonotic diseases looking to identify opportunities on how to incorporate this topic into their veterinary curriculum to strengthen the level of competency of their graduates. This area is one of the main OIE competencies necessary to educate high quality veterinary professionals to work for the national veterinary services in Ethiopia, where emerging and re-emerging diseases have a major toll on both public and animal health as well as production.



# Curriculum Assessment

## Task 1, Stage 1

### I. Faculty Retreat (Activity 1.1)

On February 20<sup>th</sup>, 2016, Dr. Achenef Melaku, Dean of the Faculty of Veterinary Medicine at the University of Gondar, welcomed over 60 participants at the UoG-FVM Faculty Retreat.

The main objective of this activity was to critically review the OIE Day 1 Competencies and appraise the level of proficiency for new UoG veterinary graduates using a newly developed Evaluation Tool. The overall purpose was to identify areas (i.e.. Preventive medicine, public health and population medicine) associated with Day 1 Competencies in the UoG-FVM curriculum that would require further development to enhance the competency level of future graduates.



*Over 90% of the UoG-FVM Faculty and Instructors participated in the Faculty Retreat, which took place at the Addis Continental Institute of Public Health in Bahir Dar, the capital of the Amhara Region located 175 Km south from the city of Gondar*

In the end, 93% of the attendees indicated that the Faculty Retreat was “effective on accomplishing its objective.” Several of the attendees indicated that “the discussion sessions were really relevant and opened our eyes to really identify if the competence levels were present or absent in our average graduate.”

The metrics gathered in this event, as well as the student town hall meeting and stakeholders interviews (activities described later in this report), were used to identify gaps in the UoG curriculum with respect to the OIE Guidelines on Veterinary Education Core Curriculum and the OIE’s Day 1 Competencies.

During the Faculty Retreat, the UoG faculty and invited guests were divided into 9-10 small groups of approximately 6 individuals based on their area of expertise. Each group was assigned a set number of competencies to review, and a facilitator from the veterinary twinning partner group or OIE. The role of the facilitator was to moderate the discussion and capture the opinions and ideas of the attendees.

All the competencies were thoroughly reviewed over 4, one-hour sessions. Evaluation forms from each member of the small groups were collected. At the end of each session, an additional general vote including all the participants was collected via a pooling system (clicker’s technology). This vote was anonymous and was saved to be evaluated by the partners at a later date.



## I. Faculty Retreat (continued) – Regional Impact



*Deans from the College of Veterinary Medicine at Wolaita Sodo, Mekele, Jimma, Wollo, and Haramaya Universities were actively engaged in the group activities and discussions throughout the event*



*Dr Samuel Wakhusama, the OIE Representative (seen here in the top left corner facilitating the discussion in his group) described earlier in the day the OIE Guidelines on Veterinary Education Core Curriculum and the OIE's Day 1 Competencies to all the participants*

From the early stages of the UoG-OSU Twinning Program, the partners planned to include other regional colleges of Veterinary Medicine and Health Sciences in the evaluation and curricular development process to increase the regional impact of the Twinning Program.

Six out of the ten colleges of Veterinary Medicine in Ethiopia participated in the Faculty Retreat to assess the level of competency of the UoG veterinary graduates, and be exposed in the process to new approaches on how to evaluate their own academic programs using the OIE Guidelines on Veterinary Education Core Curriculum and the OIE's Day 1 Competencies.

The Dean of the College of Veterinary Medicine at Mekelle University, Dr Berihu Gebrekidan, indicated in his final comments how pleased he was with the experience and that, "I am looking forward on using the Evaluation Tool and the methodology applied today in assessing the competency of our own graduates and the effectiveness of our curriculum..."



Dr. Yemataw Wondie, Director of the UoG Quality Assurance and Audit Directorate (side picture), and other faculty members from different colleges at the UoG were also involved in the Faculty Retreat.

Their purpose of attending this meeting was to observe how the veterinary curriculum was being systematically evaluated, indicating at the conclusion of the event that, "Their next step was to adapt this methodology and process to their own colleges and programs, from Medicine to Animal Science."

## Evaluation Tool

As part of the OIE PVS Pathway program, the OIE has created a series of recommended competencies that graduating veterinarians must fulfill by their graduation. The goal of the Day 1 Competencies is to assure that young veterinary professionals can support their Country's National Veterinary Services.

To assess these competencies in regards to the proficiency level of the average Day 1 UoG DVM graduate, an Evaluation Tool was designed to systematically collect and analyze the perception of University of Gondar (UoG) faculty, veterinary students, recent graduates and major stakeholders.

This Evaluation Tool consists of a series of charts and tables (see picture below) in which the components of the 11 specific and 8 advanced competency guidelines are expanded. It also includes examples and definitions of knowledge and performance expectations that allow the classification of a recent veterinary graduate from highly competent to insufficient or not competent.

THE OHIO STATE UNIVERSITY COLLEGE OF VETERINARY MEDICINE		Evaluation of OIE Day 1 Competencies Session 1: Epidemiology and Food Hygiene Groups 1 and 2	
<b>Day 1 Competency 2.1 Epidemiology</b>			
<b>a.) General Principles of Descriptive Epidemiology</b>			
• Measuring Disease		• Measuring Occurrence	
Is the average Day 1 DVM graduate able to:	Highly Competent	Minimally Competent	Insufficiently Competent
Measure and describe disease? (i.e. calculate morbidity and mortality rates, attack rates, etc.)			
Calculate and describe disease occurrence? (i.e. incidence and prevalence)			
Describe the difference between the various temporal and spatial distributions of disease? (i.e. endemic, sporadic, and epidemic)			

Using the metrics provided by the Evaluation Tool, the UoG-OSU Twinning partners identified specific competencies that were fulfilled as well as others that required further development/improvement, recognizing at the same time other areas that new graduates were completely missing. These results will be described in an incoming report to be presented for prioritization during the Focus Forward event in October 2016.

The final version of the Evaluation Tool is expected to be openly shared with other Twinning Programs and veterinary academic institutions.



*Participants from the Faculty Retreat using the Evaluation Tool to define a specific and detailed profile of the Day 1 veterinary graduates at the UoG with respect to the OIE Day 1 Competencies. Information from this Evaluation Tool can then be utilized to identify potential gaps or areas for improvement in the veterinary curriculum to strengthen the veterinary graduate's education*

To be able to establish an accurate profile of the Day 1 UoG veterinary graduates with respect to the OIE Day 1 Competencies, senior students, recent graduates and major stakeholders (or boundary partners), were also included in this assessment.

## II. Student Town Hall

On February 23th, 2016, selected senior students and recent graduates were invited to a town hall meeting to review the OIE Day 1 Competencies using a PowerPoint version of the Evaluation Tool. During this session at the University of Gondar, Dr. Armando Hoet (seen in side picture) described each competency to the students, with specific examples for each level. Then, they were asked to assess, in their opinion, the level of proficiency of the average veterinary graduate student for each competency, using the same scale from the Evaluation Tool.



Before each voting session, the floor was open to allow the students and new graduates to freely express their opinions and ideas in regards to the subject at hand. Comments were then recorded by the OSU coordinator. At the time of the voting, students were able to enter their opinions anonymously using a clicker system, which saved all the results for later analysis. The final outcomes of this meeting will be part of an incoming curricular gap analysis report to be presented at the Focus Forward prioritization event.



## III. Stakeholder Interviews

For this activity, the UoG partners selected 20 current employers and supervisors of new UoG DVM graduates. Among them were professionals at: 1) regional state livestock development and promotion agencies; 2) regional animal disease diagnosis and investigation laboratories; 3) senior professionals at Zonal or district levels who supervise UoG graduates; and 4) colleagues who monitor and supervise UoG graduates.

These individuals were interviewed by the UoG partners using a modified version of the Evaluation Tool so that all the OIE Day 1 Competencies could be evaluated within a shortened timeframe. These interviews took place during the months of February and March 2016.

Responses were recorded at the time of the interview and entered into an excel spreadsheet for analysis. To de-identify the individual stakeholders, responses were associated with a number instead of a name to analyze the results anonymously.



*Multiple meetings with stakeholders in and out of the UoG have taken place, including a meeting with Dr. Takele Tadesse, Vice President of Research and Community Services from UoG, seen here receiving the Twinning partners at the University Council*

## IV. Site Visit (Activity 1.2)

In addition to organizing the student town hall meeting, during the Site Visit, Dr. Armando Hoet and Dr. Suzanne Tomasi along with the UoG partners planned the interviews with other boundary partners not included in the Faculty Retreat. They also toured all the UoG-FVM teaching facilities (including classrooms, laboratory spaces, and clinics) of the UoG-FVM. During this tour, they discussed the capacity/building needs cover the OIE courses from the Veterinary Core Curriculum, Day 1 Competencies, and alleged curriculum deficits. The findings of this visit will be included in the final Curricular Gap Analysis report to be presented at the upcoming Focus Forward meeting.



*From left to right: The new Veterinary Academic building of the UoG Faculty of Veterinary Medicine, the new classroom building (which provides capacity to house all veterinary classes under one roof), one of the multiple teaching laboratories (in the picture the parasitology lab), and the new veterinary hospital currently under construction to be completed by 2017*

## IV. Curriculum Review and Mapping

Using the OIE Core Curriculum Guidelines, the twinning partners mapped and analyzed the University of Gondar (UoG) Doctorate of Veterinary Medicine (DVM) curriculum. Currently, the UoG has a detailed Study Program (August 2013 version) document describing the curriculum that veterinary students follow to obtain their DVM degree.

From this document, the UoG course codes and names were recorded in a spreadsheet with a short course description. The UoG course summary was compared with the OIE course guideline descriptions, to determine which OIE course was satisfied. The UoG course description was also compared against the recommended Day 1 Competency that the OIE expected to be achieved within that specific class.

A Curricular Gap Analysis report containing the competencies assessed with our Evaluation Tool as well as the curriculum review and mapping is being prepared. This report will be presented in the upcoming Focus Forward event in October, 2016.

**Table 1: Coverage of Specific OIE Competencies in the UoG Veterinary Curriculum**

OIE Day 1 Competencies that should be Covered	OIE Day 1 Competencies Actually Covered in UoG Curriculum
Epidemiology (2.1)	Yes
Transboundary Diseases (2.2)	Yes
Zoonoses (2.3)	Yes
Emerging and Re-emerging Diseases (2.4)	Yes
Disease Prevention and Control Programs (2.5)	Yes
Food Hygiene (2.6)	Yes
Veterinary Products (2.7)	Yes
Animal Welfare (2.8)	Yes
Veterinary Legislation and Ethics (2.9)	Yes
General Certification Procedures (2.10)	No
Communication Skills (2.11)	Yes



## The Other Side of the Coin

### Assessment of OIE Competencies at OSU

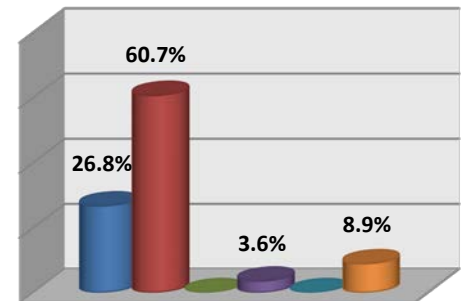
After several rounds of editing and reviewing of the newly developed Evaluation Tool, this was initially distributed to The Ohio State University veterinary faculty and new veterinary graduates for them to evaluate the program. This allowed the partners to assess the ease of using the Evaluation Tool as well as to collect data regarding the competency level of the average Ohio State veterinary graduate with the OIE recommended guidelines.

When the Ohio State data was analyzed it was determined that Specific OIE Day-1 Competencies, from Epidemiology (2.1) to Communication Skills (2.11), were indeed included in the core curriculum across multiple courses and activities. In many cases, some topics were offered through elective courses that allow the students to go deeper in specific competencies. Some of these courses included Zoonotic Diseases, Emerging Diseases, Food Safety and Foodborne Pathogens, Biosecurity and Environmental Health, Molecular Epidemiology of Infectious Diseases, Veterinary Epidemiology, Infectious Disease Modeling, among others.

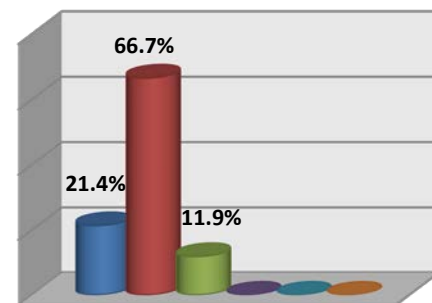
Furthermore, 75.8% of the surveyed participants (n=25) classified the Ohio State Day-1 graduates as highly competent (HC) or moderately competent (MC) in these OIE-specific competencies. Among the highest proficiencies ranked were Veterinary Products (Competency 2.7), Veterinary Legislation and Ethics (2.9) and General Certification (2.10) (See graphs to the right).

On the other hand, the lowest perceived proficiency in a competency was in Animal Welfare (2.8), with only 52.5% of the participants indicating that the average Ohio State Day-1 graduate was highly competent or moderately competent in this area at time of graduation. (See graph Below). This gap was already recognized several years before this survey, and multiple courses are now part of the professional curriculum to improve this competency: Introduction to Animal Behavior (core 1<sup>st</sup> year), Introduction to Animal Welfare (core 2<sup>nd</sup> year), Contemporary Issues in Animal Welfare (elective 3<sup>rd</sup> year) and Animal welfare assessment module in the Preventive Medicine Rotation (core 4<sup>th</sup> year).

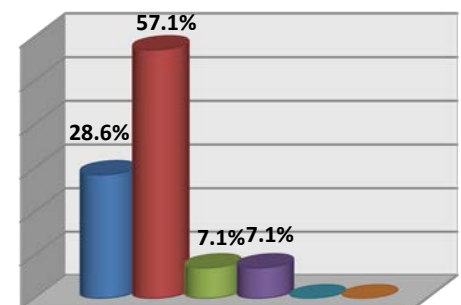
Graphs in the right side show the OIE Day-1 Specific Competencies with the highest and lowest proficiency level of the average Day-1 Veterinary Graduate at The Ohio State University. (Categories included: Highly Competent (blue bar), Moderately Competent (red), Insufficiently Competent (green), Not Competent (purple), Not in Curriculum (light blue), Not Sure (orange))



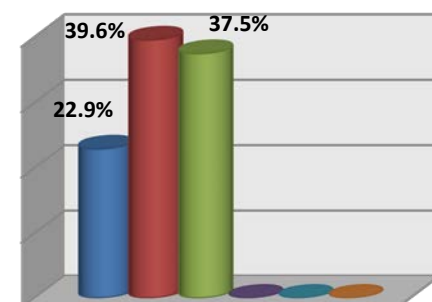
2.7 Veterinary Products



2.9 Veterinary Legislation and Ethics



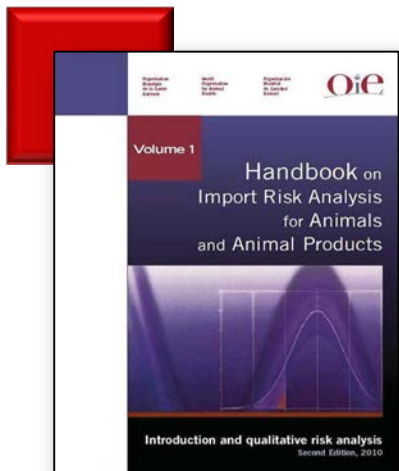
2.10 General Certification Procedures



2.8 Animal Welfare

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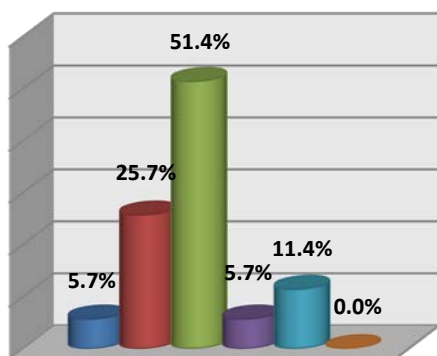
After the Advanced OIE Day-1 Competencies, from Organization of Veterinary Services (3.1) to Administration and Management (3.8), were evaluated, a different picture emerged. Some of the OIE advance competencies were not included, or only partially included, in the professional curriculum. Therefore, it was not surprising that 44% of the surveyed faculty and recent graduates indicated that the Ohio State students were insufficiently competent (IC) or not competent (NC) in many of the advance OIE competency topics.



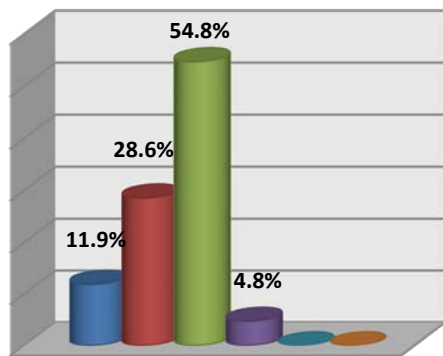
As a matter of fact, OIE does not require all the veterinary students to be “highly competent” in these advanced competencies at the time of graduation; and so in many colleges these competencies have been moved to the veterinary graduate program as is the case in OSU.

In any case, one of the most critical findings was that Risk Analysis (Competency 3.5) was currently not included in the professional curriculum as a standalone subject and that only scattered components or elements were present in the professional curriculum. To fill this identified gap, in the near future Ohio State will offer a risk analysis elective based on the OIE risk analysis principles and guidelines. This course has already been developed and taught multiple times at the University of Gondar during the One Health Summer Institute. Therefore, the next step will be to adapt it to the US.

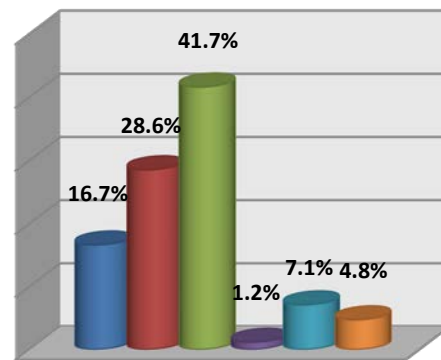
Other weak advanced competencies identified, which will require further development and/or inclusion in the professional curriculum, include Advance Food Hygiene (3.4) International Frame Work (3.7) and, interestingly, Research (3.6). (See graphs below).



3.4 Advanced Food Hygiene



3.7 International Trade Framework



3.6 Research

Categories included, from left to right: Highly Competent (blue bar), Moderately Competent (red), Insufficiently Competent (green), Not Competent (purple), Not in Curriculum (light blue) Not Sure (orange)

At the end of the assessment phase Ohio State was able to see where the weak points and gaps were present and provide us a target to improve during the next couple of years as the Twinning program moves forward.

In conclusion, it is clear that the benefit of the twinning project has been indeed bidirectional and valuable for both institutions!!



# 4<sup>th</sup> OIE Global Conference on Veterinary Education

## Cross Twinning (Activity 1.3)

A representation from the University of Gondar and The Ohio State University OIE Twinning Program attended the 4<sup>th</sup> OIE Global Conference on Veterinary Education, in Bangkok, Thailand. From June 22<sup>nd</sup>-24<sup>th</sup>, 2016, this conference focused on the implementation of OIE guidelines in regards to Day 1 Competencies and the Veterinary Core Curriculum to ensure the excellence of the veterinary profession.

During this conference attendees learned how other institutions have assessed and performed curricular changes to incorporate the OIE guidelines. Also of interest were the multiple methods and strategies used to measure the impact that such interventions and changes to the curriculum has on the quality of the graduates coming out of those programs.

The UoG-OSU partners also discussed how to incorporate in the upcoming curricular changes the future needs highlighted by Dr Monique Eliot, OIE Director General. Dr. Eliot indicated that in addition to introducing global veterinary public health to all veterinary students, in the near future the Twinning Programs should also focus on: students' leadership training, economic education and communication skills.

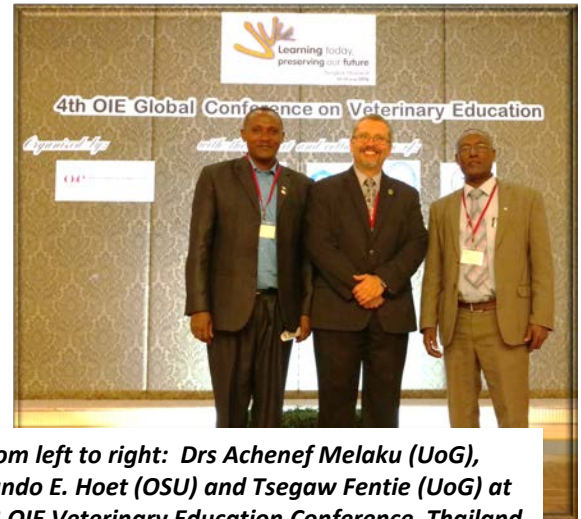
Under the framework of the conference, multiple activities and meetings with other academic institutions and boundary partners (i.e. associations of veterinary medical colleges) involved in veterinary education took place. Some of these events are described here:

### Panel Discussions

During this conference, Dr. Armando Hoet, representing the UoG-OSU Twinning program, participated in a panel discussion titled 'Where to from here?' During this activity, the panelists shared with the conference's audience their observations, experiences and advice in three key areas:

- Contributions of twinning to improvement of education in the region
- Importance of involving other authorities in twinning
- Mechanisms to assess achievements of twinning projects

Dr. Hoet emphasized in his intervention how they have included the other veterinary schools in Ethiopia, as well as high level personnel from the Ministries of Education and Agriculture, to increase the impact of the Twinning Program in this country.



*From left to right: Drs Achenef Melaku (UoG), Armando E. Hoet (OSU) and Tsegaw Fentie (UoG) at the 4<sup>th</sup> OIE Veterinary Education Conference, Thailand*

### AAVMC Meeting

Dr. Andrew T. Maccabe, Chief Executive of the American Association of Veterinary Medical Colleges, convened several veterinary schools involved in Twinning Programs to ask them for ideas and suggestions to improve their international engagement. This meeting took place during the busy agenda of the OIE Veterinary Education Conference in Thailand.

This group showed a special interest of determining how to help other veterinary schools in developing countries to follow and apply OIE guidelines and recommendations. Among the suggestions provided by the attendees was the creation of a road-map that could show in stages how veterinary schools might pursue accreditation through any of the existent accrediting bodies, including AAVMC.

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## 4<sup>th</sup> OIE Global Conference on Veterinary Education

### Twinning Meeting

At this conference, Dr. Alain Dehove, Director of Finance of the OIE, led a small group meeting to open communication with current Twinning Programs with the purpose to find new ways to further support the different partners involved in this program.

Among the suggestions provided by the UoG-OSU partners were:

- To create a directory including all twinning members to promote the communication amongst them
- To create a centralized, private Dropbox on the OIE website to facilitate sharing of reports, newsletters, and developed educational or evaluation tools created by twinning partners
- To create a distribution list to openly share announcements of activities or events, including CE opportunities
- To promote regional twinning conferences to reach other veterinary institutions not currently included in the OIE Twinning program

### African Outreach

Drs. Achenef Melaku and Tsegaw Fentie from the UoG-FVM, met informally throughout this conference with multiple professionals and academics from different African countries interested to learn more on the Twinning Program that they led in Ethiopia.

The UoG-OSU Twinning program is the first and the only one currently taking place in Africa. Therefore, Drs. Achenef and Tsegaw openly shared our experience and strategies with colleagues from Uganda, Kenya and Tanzania, among others.



*University of Gondar and The Ohio State University OIE Twinning Team involved in the Curriculum Assessment, in the company of Dr. Samuel Wakhusama, the OIE Representative (lower far left) and Dr. Berihu Gebrekidan, Dean of Mekelle College of Veterinary Medicine (first right)*

## Challenges

### Communications Still a Challenge



- Communication through online tools such as Skype still remains difficult due to unstable and frequent shortages in the connection systems in Ethiopia, which have increased the last few months.
- Phone lines are still the preferred method to communicate, but they can be unreliable on occasion. This form of communication also makes difficult the sharing of audio-visual materials between the partners, which makes the flow of information and ideas problematic.
- As indicated before, despite these obstacles, both universities are strongly committed to the success of this program, and flexibility remains the key word.

### Political Challenges

- Recently several planned activities such as the Focus Forward and some from the One Health Summer Institute, had to be postponed due to travel advisories posted by the U.S. State Department.
- In the last few months, the Amhara Region, where the city of Gondar is located, has faced multiple political and social challenges that have created some uncertainty. Because the unpredictability of the events occurring in that region, it was highly recommended not to move forward with an event such as Focus Forward that was going to gather close to 100 participants.
- Solution: For the short term, we have moved the Focus Forward prioritization and planning meeting to Addis Abba, to allow some time to let the political issues that trigger these warnings to come back to normal and a manageable risk level.
- The OSU partners remains highlight committed to maintain the support to the UoG colleagues on these difficult times.



## Upcoming Activities

- **Focus Forward Meeting (Activity 1.4)**  
– Oct 28-29, 2016. Addis Abba, Ethiopia
- **OSU Veterinary Preventive Medicine Rotation (VPM) and Ohio Farm to Table (F2T) (Activity 2.3)**  
– Oct 30 to Nov 12, 2016. Columbus, Ohio, USA



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