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Program/Project Purpose: Program/Project Purpose: To describe the collaborative effort and lessons learned building sustainable TUSK installations to support One Health education through partnership and training at One Health sites in a Central and Eastern African university network. The project's aim is to strengthen the African University network members' ability to deliver a One Health curriculum on site and through distance learning using an innovative comprehensive technological approach.

Structure/Method/Design: TUSK (Tufts University Sciences Knowledgebase) is a powerful, online, open source educational system which offers huge capacity building opportunities. Delivery of technology-based education is not yet second nature to resource constrained African countries. Given electricity, bandwidth and limited technology know how, implementation problems loom large even in the face of huge rewards. TUSK's key features include Course/content delivery by mobile or desktop Content repository and management Tools for active and distance learning Curriculum competency based management—for continuous improvement Administrative management—for evaluating and comparing training programs across any network of clinical sites or institutions, Internationalization- TUSK is translated into French and can be any other language Since 2009, through USAID's RESPOND Project, Tufts University has partnered with universities in the One Health Central and Eastern Africa (OHCEA) university network to implement TUSK. To date, TUSK has been installed and customized in several schools at Makerere University (Uganda), University of Nairobi (Kenya), Moi University (Kenya), University of Kinshasa (DRC), University of Lubumbashi (DRC), Umutara Polytechnic University (Rwanda), National University of Rwanda (SPH; Rwanda), Jimma University (Ethiopia) and Mekelle University (Ethiopia) await installation in early 2015. The multi-tenancy nature of TUSK, a system built around the One Health approach, allows for the sharing of content across multiple schools in a university.

Outcomes & Evaluation: System installations and trainings have been completed. Local technology staff assisted in the installation and attended technical training. The next success measure must be usage. We can also push the system beyond the academy for governmental training of local health care workers.

Going Forward: Sustainability efforts are multi-pronged 1. Continued training of technical staff to maintain the system and pull upgrades from GITHUB. 2. To entice faculty to use the system 3. To train on the depth of the tools within the system so that it does not simply become a digital file cabinet and 4. Encourage cloud-based models such as Kenet in Kenya which hosts systems for two Kenyan schools.

Funding: Funding from USAID. The software is open source — therefore free to all. The challenge is to encourage African Faculty to use the system and to learn the depth of the tools available through it. We will describe current and enriched efforts to find early adopter leadership to encourage use which has worked in India and Saudi Arabia.

Abstract #: 01ETC003

Uganda health worker training of non-communicable diseases

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Background: According to the World Health Organization, 25% of Uganda deaths are attributable to cardiovascular diseases, diabetes, cancers, and chronic obstructive pulmonary diseases. Care for patients with non-communicable diseases (NCD) is often fragmented and requires an integrated approach to care. As NCDs increase in Uganda, it has become increasingly more important to focus on NCD education for healthcare workers. The Ministry of Health has undertaken NCD training activities as one of its many responsibilities which fall under its capacity building agenda. This study aimed to look at whether the selected NCD training was an effective way of positively impacting NCD knowledge in this population.

Methods: The objectives to sensitize HCWs to the major NCDs in Uganda and to common risk factors in order to inform improved screening and early detection of NCDs through an integrated approach and to train these HCWs on how to appropriately refer patients with NCDs within the health system. Each five-day-long training activity for HCW, including nurses, clinical officers, medical officers, and consulting physicians. Cadres are combined due to the importance of a team-based approach to chronic care management. The training curriculum includes three components: group reading, role-plays, and group discussion.

Findings: There were 165 health workers who received the NCD training. The average age of the health worker in this training program was 56.6 (SD 9.7) and the majority of health workers were male (61.8%). Workers from 13 different hospitals were trained. There were four types of health workers trained including Nursing Officers (32.4%), Clinical Officers (29.4%), Medical Officers (14.7%), and Physicians (23.5%). Qualifications were grouped into nursing degrees (35.3%), clinical officer training only (5.9%), clinical medicine and/or community health degrees (23.5%), or an MBcHB (35.3%). Experience levels were grouped in increments of 5, beginning with 0-5 years of experience and extending up to 35 years of experience. The average improvement in pre and post test score significantly increased by 11.9 percentage points after receiving the TOT training (S.D. 10.6, $p < 0.0001$). Score difference ranges from a 12 point decrease to a 36 point increase. ANOVA was done as a secondary analysis to determine if there were differences in those who reported positive scores versus those who reported negative scores based on age, sex, hospital, cadre, original qualification, and years of experience. No significant differences were detected.

Interpretation: The pre and post tests showed significant positive increases in scores after health workers had received the TOT training. Follow-up studies should look at differences in score improvements among those who receive the training from the second round. Studies should also look to see if there are observable differences in scores between those of different experience levels and training types.

Funding: No funding listed.

Abstract #: 01ETC004

Impact of congregation-based health intervention to promote birth outcomes – perspectives from the volunteer health advisors

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