Implementation of an Undergraduate Medical Education Course in Global Health Based on the Consortium of Universities for Global Health Core Competencies: A Pilot Program

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Program/Project Purpose: In 2013 the Consortium of Universities for Global Health(CUGH) appointed a subcommittee to determine global health core competencies integral and applicable to interdisciplinary health care. The Global Health Impact Group(-GHIG) at the University of Minnesota(UMN) Medical School identified a need for global health curriculum in our undergraduate medical education. GHIG developed and implemented a year long monthly course addressing the core competencies as defined by the CUGH Global Health Competencies subcommittee.

Structure/Method/Design: Between September 2015 and May 2016, 8 lectures were held as part of a Medical Undergraduate Global Health Education course at the UMN Medical School. Topics included global burden of disease, social and environmental determinants of health, collaboration, partnering & communication, ethics, as well as health equity and social justice. Pre-participation surveys were sent to first and second year medical students (n=350) to establish interest and final topics. Certificates of completion were offered to students who attended 6/8 lectures. Attendance, course and certificate completion were tracked throughout the year and recorded.

Outcome & Evaluation: Of 350 students surveyed, 132 responded expressing interest in a lecture series. The majority(67%) were interested in obtaining the Global Health Certificate in Medical Education, and 50% completing certificate requirements. All responders were interested in a global health course whether or not they pursued the certificate. An average of 100 medical students attended each lecture, with a range of 60-122 attendees. This far exceeded expectations and was met with positive subjective feedback from students and faculty.

Going Forward: Following the first year of this pilot, the course has continued with feedback from the previous year attendees and presenters, and further incorporation of the CUGH core competencies. Additionally, planning with medical school administration is underway to incorporate the course into curriculum as an optional for credit opportunity for medical students.

Source of Funding: Grant monies obtained from the following entities provided food for attendees of the lectures: University of Minnesota Medical School Student Council, University of Minnesota Professional Student Governance, University of Minnesota Student Unions & Activities grant, University of Minnesota Global Medical Education & Research department. Speakers were University faculty or community members who lectured without compensation.

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Palliative Care Practices of Community Health Workers and Professional Nurses in Limpopo Province, South Africa

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Background: Palliative care is an interprofessional model of care used to guide end-of-life care for people in the advanced stages of a life-limiting illness of any type and their care persons. Little is known about palliative care interventions used by community health workers (CHWs) and professional nurses (PNs) in rural areas of sub-Saharan Africa. The specific aims of our research were to 1) to identify palliative care interventions used by professional nurses and CHWs in Limpopo Province, South Africa to promote dignified dying and 2) to identify the interventions that are most important to promote dignified dying by professional nurses and CHWs in Limpopo Province, South Africa.

Methods: The study was conducted in the Vhembe district of Limpopo Province, South Africa. Guided by an interview guide, data were collected from individual interviews and focus groups. Researcher's field notes were also sources of data. Data were analyzed for themes related to palliative care interventions used by the PNs and CHWs.

Findings: Twelve people participated in the study (10 CHWs and 2 PNs). The mean age of all participants was 43 years old. All participants in the study were female and identified Venda as their cultural group affiliation. The mean years of experience 10.7 years and 38.5 years for the CHWs and PNs, respectively. Of the participants involved in the study, 90% of them worked for non-governmental organizations, and 10% worked for the South African Department of Health in Limpopo Province, Vhembe district. Five common palliative care interventions were identified: providing comfort (emotional, physical), caring for the human spirit of patients (Ubuntu), advocating for adults and giving voice to bereaved children, providing direct care, and caring for self.

Interpretation: CHWs and PNs were able to identify palliative care interventions consistent within their scope of practice. In every interview and focus group, CHWs and PNs also requested palliative care-specific training to support their work. Future studies should identify palliative care interventions and learning needs of CHWs and PNs in different regions within the province.

Source of Funding: University of Virginia (UVa) Center for Global Health K.C. Graham UVa School of Nursing.

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Impact of Implementing an Electronic Medical Record on an International Medical Mission

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Background: Short Term Medical Trips (STMT) are vital in bringing healthcare to underserved communities. When they become established providers an accessible medical record keeping

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system is paramount to increasing the quality of follow-up. Implementing an EHR in such venues enhances continuum of care. It allows providers to easily establish a history of care and improve decision making in their medical management. Furthermore, it allows providers to evaluate the long term effects on morbidity and mortality in the communities they serve.

Methods: The study examines records from VCU's Humanitarian Outreach Medical Brigada Relief Effort and the nonprofit Dominican Aid Society of Virginia's STMT providing care to the community of Paraiso, Santo Domingo Norte, Dominican Republic, between 2014 and 2017. Paper records from 2014-15 provide data prior to implementation of an EHR and 2016-17 records provide data directly from an EHR. Records included patients aged 30-89 with calculable CVD risk and hypertension. Retrospective record review included recalculation of CVD risk according to a validated lipid-free classification chart and analysis of prescribing practices.

Findings: Preliminary review pre- and post-EHR data sets demonstrated increase in rates of statin prescription for patients with high CVD risk (19-30% pre-EHR and 79% for post-EHR). The appropriate treatment of hypertension was improved with EHR implementation (77% and 70% pre-EHR and 87% post-EHR). Additionally, failure to assign a CVD risk improved with use of an EHR (63% and 65% of patients in 2014 and 2015 were unassigned CVD risk, and only 0.88% of patients in 2016 were unassigned prior to data analysis). Aspirin therapy in high CVD risk patients was not significantly affected with implementation of EHR technology (31% and 54% pre-EHR and 57% post-EHR).

Interpretation: Improved systems have long been shown to improve performance, and the systematic implementation of an electronic health record for STMT has proved no exception. The standardized entry of CVD risk into an EHR enabling healthcare providers easy review of information prior to prescribing was demonstrated to improve the rates of CVD risk calculation, increase appropriate statin prescription to high CVD risk patients, and increase the percentage of hypertensive patients receiving appropriate anti-hypertensive therapy.

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Central Role of Relationships in Promoting Careers in Global Health

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Background: Medical school curricula in global health most often center around providing coursework and field experiences. Few studies have examined the role of non-curricular aspects of students' experience in facilitating careers in global health. To guide and refine the Global Health and Disparities (GHD) Path of Excellence at the University of Michigan Medical School, we examined the relative value to students of curricular and non-curricular aspects of the GHD Path.

Methods: The GHD Path includes: a) four-year relationship with an assigned Advisor; b) completion of a scholarly field project; c) small group activities in the second year; and d) a Mini Field Project in second year focusing on leadership skills. In the spring of 2016 we administered a survey to the 41 graduating UM Medical students who participated in GHD for all four years of medical school and are reported here. Similar surveys had been administered to GHD students during their first- through third years of school.

For each component of the GHD Path, students were asked to rate the extent to which {component of GHD} "provided VALUE to you" and "provided a positive IMPACT on your professional development." Response categories were "Strongly Disagree", "Disagree", "Neutral", "Agree" and "Strongly Agree".

Findings: Twenty-seven (67%) of the 41 students completed surveys. Other than the capstone project, *all components rated as high value or impact by >80% of students concerned relationship-building*:

Specifically, the percent of students who Agreed or Strongly Agreed that each component provided personal **VALUE** and **IMPACT** on their professional development were:

GHD Advisor **89, 78**
Other GHD faculty **78, 81**
Interactions with other students **89, 89**
Capstone project **82, 81**
Mini Field Project **67, 67**
Small group seminars **63, 52**
Noon seminars **67, 48**
Meet the professor dinners **74, 52**

Similar results were found for students prior to their year of graduation.

Interpretation: Building personal and professional relationships is as important as field experience, and more important than coursework, to developing a career in global health among medical students. Providing these results are confirmed in future studies, programs designed to promote careers in global health should create, nurture, and measure opportunities for students to develop life-long relationships related to their career paths.

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Ten Keys to Developing a 'Culture of Better Information Use': Challenges and Successes of a Global Nutrition Project

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Background: Why do health projects working in development settings collect data, and how is information used? Often in the past, health programs and donor-funded projects have allowed reporting needs to drive monitoring and evaluation (M&E) systems, placing emphasis on indicators for reporting, but not contributing to decision making and program improvements. There was often little meaningful data collected beyond reporting, to help managers know how well activities were working and whether changes were needed.

In recent years, there is more emphasis on programmatically meaningful data collection, analysis, and use as a way of better understanding projects or programs, and using information to