be competency-based and up-to-date, 43 faculty enrolled in higher education at the Masters and PhD level, and national standards for nursing education implemented. Tools developed include a "Campus to Clinic" mentorship guide for HIV care, a clinical simulation training program, a webinar series on curriculum development, and an e-learning module on the Option B+ approach to prevention of mother-to-child transmission of HIV. South to south exchanges have fostered regional dialogue and experience sharing.
Going Forward: Continued advocacy for and investment in nursing education and training are required to ensure that enough nurses are fit to practice and purpose.
Funding: The President's Emergency Plan for AIDS Relief (PEPFAR), U.S. Health Resources and Services Administration (HRSA), Cooperative agreement #U92HA12772.
Abstract #: *02ETC082*

The importance of clinical accompaniment for VIA/cryotherapy programs in low and middle income countries

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Program/Project Purpose: Cervical cancer is one of the leading causes of cancer mortalities for women in low and middle income countries (LMIC). Because most health infrastructures in these countries are inadequate for paps to effectively detect cervical cancer, visual inspection with acetic acid (VIA) and cryotherapy have proven to be effective tools for detection and prevention in LMICs. From January 2011 to present, Partners In Health (PIH) has supported a VIA/cryotherapy program in the Western Highlands of Guatemala. This program targets women most at risk for developing cervical cancer. With the goal of screening and treating 80% of the target population, PIH is hopeful it can contribute to a decrease in the incidence and mortality of cervical cancer in this region. Because VIA/cryotherapy is effective, not cost prohibitive and has an extremely low complication rate, it can be taught to nurses in rural communities. However, as these were new skills for nurses with often limited education, to bolster program quality, the aim was to also provide regular and on-going clinical accompaniment from a US-based volunteer nurse, rather than rely on a single one-time training as is more commonly done.
Structure/Method/Design: Program goals included a series of rigorous trainings. Additionally, the US-based nurse traveled twice yearly for three weeks to evaluate technique and reinforce evidence based practices. PIH has a long-standing relationship with the coordinating local NGO. Nurses and one physician self-selected to participate. The protracted training, regular clinical accompaniment and provision of materials (including cryotherapy equipment), will strengthen local capacity sufficient for this program to be self-sustaining.
Outcomes & Evaluation: Five nurses and one physician were trained and certified in VIA and three were also certified in cryotherapy. In all, approximately 375 training hours were received. The US-based nurse spent approximately 20 weeks in country providing clinical accompaniment. Clinical confidence and critical thinking skills progressed over time, and surrounding municipalities now refer patients for management of screening and treatment.
Going Forward: The primary challenge is beyond the actual provision of training and accompaniment. Due to program funding, there were sufficient resources to treat women diagnosed with cervical cancer, which will now be difficult to access. Seamless collaboration betwee
Funding: Family Foundation grant.
Abstract #: *02ETC083*

The impact evaluation of health promotion on improving rational use of antibiotics among rural children caregiver: A cluster randomized controlled trial in China

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Program/Project Purpose: Inappropriate use of antibiotics is a global public health problem. Rural children are the victims of inappropriate use of antibiotics especially in China rural areas. Using drug for children to a large extent depends on the caregivers. The aim of the project is to evaluate the impact of health promotion on improving rational use of antibiotics among rural children caregiver through a cluster randomized controlled trial in China.
Structure/Method/Design: We conducted a cluster randomized controlled trial of a 8 month, village-based health promotion intervention to improve children caregivers' knowledge, attitudes and practices towards antibiotics. One parent or grandparent of children whom was born between 2007 and 2013 in a family was recruited in study. The software of Optimal Design was used to calculate the sample size taking account of the design-effect. We randomly selected 12 villages form a rural town in Yanggu county, Shandong province, and these villages were randomly assigned to either intervention group or control group, with each group contains 6 villages. In each village, about 60 eligible caregivers were recruited. The intervention group received the health promotion program which included three times lectures about rational use of antibiotics, post some posters in the village, and gave them booklets. All the lectures completed by one pediatrician to insure the unification of quality. Surveys of all subjects were carried out by trained interviewers using self-designed questionnaire before and after the intervention. We also completed some individual in-depth interview to help reveal the real effect of the intervention. The percent of anticipate that inappropriate use of antibiotics was defined as the main outcome indicator. Adjusted chi-squire and multivariate statistical analysis were used with intention-to-treat.
Outcomes & Evaluation: Up to now, we completed the baseline survey and 8 months intervention. We carried out three times lectures with 82.6% participants attended, distributed 363 booklets, posted more than 100 posters, and interviewed 26 individuals. According to these works we find that only 56.1% caregivers know about antibiotic resistance, 20.0% of them believe that the higher price the better antibiotics, 45.2% of them have ever take drugs interruptedly. So far it's all going smoothly.
Going Forward: The final survey will be carried out in November, and we will compare the differences between the two periods and the intervention group vs control group in children caregivers' knowledge, attitudes and behaviors. We will try our best to make connection w
Funding: China Medical Board (CMB).
Abstract #: *02ETC084*

Rwanda, looking to a healthy future

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Program/Project Purpose: The Human Resources for Health Rwanda (HRHR) represents a new model for a country struggling to

provide quality health care due to a shortage of skilled healthcare workers, poor health education, inadequate equipment in and management of health facilities. The HRHR program, over the next 7 years, will help to restructure and develop a sustainable health system. This is the only such collaboration of its kind globally; a partnership between the Clinton Health Initiative, the governments of Rwanda and the United States, and 24 leading U.S. educational institutions in addition to the University of Rwanda.

Structure/Method/Design: The country's first dental school started with 15 students in 2013 in a five-year program. We want to integrate the "oral physician" concept which calls for providers to incorporate primary care into the scope of oral health care. This concept, combined with cross-training techniques, will increase capacity with the limited personnel and become a sustainable model for other countries to emulate. The oral health curriculum has been integrated with medicine and pharmacy curriculums. It has also been introduced into the nursing and midwifery curriculum. Conducting outreach programs throughout the country, with interdisciplinary teams, will be important to increase health literacy. These items have been instituted: faculty development, selected department chairs, officially appointed a dean for the school of dentistry and the school of nursing, and combined 7 colleges to form the University of Rwanda.

Outcomes & Evaluation: The first national oral health survey was created to establish a baseline for oral health as a risk factor for noncommunicable diseases. Students conducted their first fundraiser to support student and faculty outreach.

Going Forward: The goal is to train 302 oral health providers; the first dental class will graduate in 2018. This program will also impact the educational of 5,000 nurses. The dental school clinic will expand to accommodate the increase in students. We are advocating fo

Funding: The MOH receives funding directly from the U.S. Government; it allocates funds and assumes accountability.

Abstract #: *02ETC085*

On-site mentorship and quality improvement to strengthen Non-Communicable Diseases care in resource-limited settings: Lessons learned from rural Rwanda

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Program/Project Purpose: Lack of long-term practical mentorship following initial didactic training hinders delivery of quality health services in resource-constrained settings and may limit ability to decentralize services to primary care level. This is particularly the case for chronic Non-Communicable Diseases (NCD) for which prevalence is rising in low-income countries and management is more complex than in other clinical spheres. Here we describe implementation of a mentoring, enhanced supervision at health centers and quality improvement (MESH-QI) intervention adapted for NCD care and its preliminary impact on care quality in rural Rwanda.

Structure/Method/Design: A MESH NCD mentor was selected from NCD-trained nurses providing clinical care at each of three public rural district hospitals supported by non-governmental organization, Partners In Health. Mentors received refresher trainings on NCD management and training-of-trainers, emphasizing mentorship and QI techniques. Mentorship activities started in October 2012, adding health centers that had implemented NCD clinics. Mentors made at least monthly visits to health centers to observe clinical care, provide real-time feedback to health center nurses delivering care (mentees) and support operational needs. Starting July 2013, mentor observations were documented in structured disease-specific checklists and electronically entered. Retrospective review of electronic data from July 2013 to September 2014 was conducted. Indicators related to consultation by NCD-trained mentee, documentation of blood pressure (BP), mentor-mentee diagnosis agreement and quality of patient counseling were analyzed, including comparisons between six month time periods: #1 (July 2013-December 2013), and period #2 (April 2014-September 2014).

Outcomes & Evaluation: Over the entire study period, 526 checklists were recorded, reflecting care delivered at seven health centers across catchment districts of the hospitals. Proportion of consultations with BP checked and documented was 98% (n=106) for diabetes and 99% (n=193) for hypertension. Proportion of consultations with diagnosis agreement was 96% (n=109) for asthma, 100% (n=66) for diabetes and 96% (n=166) for hypertension. We found significant increases in proportion of consultations by NCD-trained mentees from period #1 to period #2 for asthma (80%, n=61 v. 93%, n=94; $p < 0.02$) and diabetes (45%, n=25 v. 90%, n=52; $p < 0.0001$). We also found significant increases in proportion of consultations where adequate disease self-management counseling was provided for asthma (40%, n=28 v. 62%, n=51; $p < 0.01$) and hypertension (54%, n=37 v. 72%, n=115; $p < 0.01$).

Going Forward: While our data are limited in assessing changes in quality of care before v. after implementation of MESH-QI, they demonstrate improvements, measured by reported indicators, as well as maintained high quality of care over time. Adapting MESH-QI interventi

Funding: Partners in Health (operational budget) Ministry of Health, Rwanda (operational budget).

Abstract #: *02ETC086*

Building hospital management capacity in Ethiopia and Rwanda

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Program/Project Purpose: Since 2008, Jimma University, Addis Ababa University, and University of Rwanda, in partnership with Yale University's Global Health Leadership Institute (GHLI), and the ministries of health in Ethiopia and Rwanda, developed and implemented Master in Hospital and Healthcare Administration (MHA) programs educating over 150 students. The MHA was established to address the management and quality challenges and to build management capacity within health facilities and the broader health system. The MHA programs cultivate health facility leadership and strategic problem solving skills to improve the quality of hospitals across both countries.

Structure/Method/Design: Utilizing executive-style learning including didactic teaching, online resource sharing, and hospital site visits focused on the execution of students' capstone projects, faculty members provide hands-on mentoring. Through this multifaceted approach, students, who are currently hospital managers but who lack