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

prior management training, become skilled hospital administrators immediately improving the hospitals they run, transferring knowledge to their staff, and developing the function of the health system. The MHA program leadership articulated its faculty and institutional capacity building goals at the beginning; Yale GHLI endeavors to transfer the MHA to the local universities after graduating three cohorts: Yale GHLI leading in first year, co-delivering in the second, and providing audit and support in the third.

Outcomes & Evaluation: MHA faculty and staff benefit from technical, administrative, and professional development support; hospitals are the recipients of important MHA student-led quality improvement initiatives. The programs have a common core curriculum, course content, capstone assignments, program structure, and emphasis on strategic problem solving; however each are tailored to include local context and to address training needs. In 2014, Ethiopia Ministry of Health conducted a qualitative evaluation on the MHA. Preliminary results showed MHA trained CEO-led hospitals have significantly better planning, implementing, and monitoring of hospital programs. Evaluation in Rwanda will follow.

Going Forward: As MHA is still new to some of the host-universities and faculty members are not trained experts on all hospital quality improvement areas, the faculty advisor to student ratio is high. The program provides close and frequent mentorship to students and fa

Funding: In-kind and fiscal support comes from CDC, ministries of health, regional health bureaus, MHA-host universities, the Clinton Health Access Initiative, and Yale GHLI.

Abstract #: *02ETC087*

Comprehensive Sexuality Education in Zambian schools: Why do kids need it?

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Background: In 2013, UNESCO commissioned Education Development Center (EDC) to implement a national study in Zambia of schools schools and teacher training institutions (TTIs), to collect data on the knowledge, behavior and attitudes of young people between the ages of 10 and 24 with regard to sexual and reproductive health; the availability and quality of Comprehensive Sexuality Education (CSE) in schools; and safety, discrimination and harassment both in- and out of school. The study will serve as the baseline for a national project, "Strengthening CSE Programmes for Young People in School Settings in Zambia".

Methods: The study collected cross-sectional data on a nationally representative sample of young people between 10 and 24 years of age who are enrolled in and attending a school or a TTI. In total, 1,815 students from 115 schools and 9 TTIs, and 390 teachers took part in the baseline assessment.

Findings: The study found that 25% of Zambian school students in grades 4 through 12 and 50% of TTI enrollees answered 95% or more of essential HIV/AIDS facts questions correctly. Over two-thirds of students displayed accepting attitudes towards people with HIV/AIDS and would share a meal, buy food from a HIV-positive shopkeeper and would be friends with a person living with HIV. Significantly more female students were found to have accepting attitudes toward HIV-positive persons. Analyses of sexual activity of students show that by the age of 16, 17% of girls and 33% of boys report having had sex. Only 36% of schools in the study reported that they have systems to refer students for clinical SRH services, and only about two-thirds of 14 to 17 year old students knew where to find SRH information and or receive SRH services. Of all students, 40% of girls and 36% of boys report having been victims of violence or harassment. A significant proportion of students, especially females, experience bullying and sexual harassment in schools. Although many schools have adopted violence prevention policies, only 2% of schools communicated those policies to school staff, parents and students. More than 75% of schools did not communicate their policies to anyone.

Interpretation: The study findings are significant for educators and health providers in Zambia, as well as the international donor community, to inform their efforts to promote SRH among young people and reduce unwanted pregnancies and as well as sexually-transmitted infections including HIV. The study provides vital information on SRH behaviors, experiences and attitudes of young people, as well as school response including their provision of comprehensive sexuality education in schools, provision of health and SRH referrals, and ensuring that the school environment is safe from violence, harassment and discrimination.

Funding: Funded by UNESCO under contract to Swedish International Development Agency.

Abstract #: *02ETC088*

UpToDate-GHDonline collaboration: Increasing uptake and access

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Program/Project Purpose: GHDonline.org, a product of the Global Health Delivery Project at Harvard University, has provided a platform of professional virtual communities (PVCs) for thousands of health care implementers around the world to connect, share, and discuss delivery challenges, focusing primarily on low-resource settings. GHDonline has partnered with UpToDate (UTD)—an evidence-based, physician-authored clinical decision support tool used by 700,000 clinicians in 158 countries and almost 90% of academic medical centers in the United States—to provide free UTD access to professionals working in resource-limited settings. The UTD International Grant Subscription program has focused primarily on developing the clinical capacity of health care providers who deliver medical care, education, or related services to poor or underserved populations outside of the US.

Structure/Method/Design: Health care professionals or institutions (proficient in English, have some Internet access, cannot afford a subscription, outside the US) can apply for a year-long free UTD subscription through GHDonline. All applicants must complete the free GHDonline membership form and a short application. GHDonline and then an UTD committee screens applications before granting awards, UTD recipients are asked to provide monthly feedback on utility of UTD or suggest new areas for UTD to address in the private GHDonline community. Individuals and institutions can apply to renew their subscription annually.

Outcomes & Evaluation: Since 2009, this partnership has impacted 16,787 clinicians in in more than 60 countries. Grant recipients have posted 1600+ comments in both public and private GHDonline communities. Qualitative responses from the grant recipients demonstrate that UTD access continues to be crucial in improving the accuracy of diagnosis, treatment and disease management; in training health care staff; and in improving delivery of medical services.