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starting with germ theory and progressing to hand washing, water safety, human waste management, and vector control. Facilitators recruited 9 health clubs with over 650 members. Nearly 100% of club members completed the 22-week program, documented by membership cards recording attendance and WASH practices. The household survey will be repeated in December 2015. This evaluation was approved by the UT Health Science Center Institutional Review Board (HSC20140088e).

Outcomes: Survey respondents were mostly female (57%), had not attended school (70%), and had a median age of 51. Most (67%) obtained drinking water from protected communal hand-pumps. Although 81% did not treat water, 10% of those drinking river water used crude filters. 83% did not own a latrine. Asked to identify 5 key opportunities for hand washing, 45% could provide no answer, while 2% provided $\geq$3 correct answers. Only 7% reported hand-washing after defecation. Appropriate tests will analyze knowledge; drinking water, defecation and hand washing behaviors; and diarrhea incidence after the intervention. Regressions will describe WASH knowledge and behavior predictors.

Going Forward: We demonstrate feasibility of implementing a low-cost, participatory education program with high retention rates to prevent WASH-related illnesses in rural Burkina Faso. This approach could also defend against other health threats in West Africa, including Ebola. Next year 2 villages will join the program and outcomes will be measured using household inventories (behavioral observation tool) and household registers monitoring morbidity and mortality. Club and non-Club villages will eventually be compared.

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Abstract #: *2.057_HRW*

The Marshall Wolf Haiti Medical Education Fellowship: An innovative faculty development opportunity

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Program/Project Purpose: The purpose of the one-year Marshall Wolf Medical Education Fellowship is to develop promising Haitian physicians as effective leaders in medical education. This program aligns with EqualHealth's (EQ) vision of a Haitian medical education system that is high-quality, Haitian-led, and filled with opportunity. It also draws upon the resources of the Brigham and Women's Hospital (BWH), with its long record of innovation and leadership in medical education and global health.

Structure/Method/Design: In August 2015, two Haitian physicians were selected as EQ's inaugural fellows via a competitive process. Their employing hospitals in Haiti agreed to their participation in a yearlong fellowship that includes a three-month, Boston-based curriculum, and guaranteed them the support necessary to implement new education programs upon return. The Boston-based curriculum includes: a weekly series of didactic sessions on the principles of effective teaching; participation in regular BWH and Harvard Medical School educational activities, such as teaching conference presentations and rounds with master educators; and assorted professional development opportunities at other Harvard institutions. For the remaining nine months, the fellows return to their Haitian teaching hospitals to serve as clinician educators, during which they co-teach courses taught by visiting teachers at their site and receive ongoing mentorship and leadership training from EQ staff.

Outcome & Evaluation: The Fellowship is being evaluated using pre/post testing, scoring of videotaped teaching sessions by blinded reviewers, self-assessment questionnaires, regular feedback interviews, and other modalities. Initial feedback from the fellows has been strongly positive overall, with teaching conferences, Harvard Business School classes, and observed teaching experiences receiving special mention. Among the challenges faced thus far have been the language barrier; the logistics of moving the fellows between multiple teaching sites; and the creation of sufficient opportunities for the fellows to practice teaching within the Boston curriculum.

Going Forward: The Fellowship is an innovative professional development opportunity for Haitian clinician educators, an intensive learning experience drawing on five Harvard institutions and involving close partnership with Haiti-based teaching hospitals. The Fellowship represents a new model of partnership for development of global medical education systems.

Funding: The Fellowship is funded via private donations to EQ.

Abstract #: *2.058_HRW*

Towards a transportable, validated and culturally sensitive metric of work capacity for use in subsistence agricultural workforce health assessment in Democratic Republic of Congo

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Background: This project is associated with Gates Foundation's Grand-Challenges-Explorations Program "Labor Saving Strategies and Innovations for Women Smallholder Farmers". One element of the study used exercise tolerance step-tests to measure participants' aerobic capacity as a proxy metric for "work capacity" (to perform subsistence labor). The study populations were located Democratic Republic of Congo.

Methods: The step-test is an attractive method for measuring work capacity because remoteness of study locations dictated minimal equipment requirements. Harvard and Queens College (QC) step tests were considered because each is calibrated to VO2max, yielding a physiological metric of cardio-vascular fitness. Each is, however, oriented towards subjects of substantive athletic capability. When QC step-test was administered at site Idjwi, a non-trivial

portion of participants (women of smaller stature and diminished cardio-vascular health induce by endemic exposure to soil borne helminths and malaria) were unable to complete. For site Kindu, YMCA step test (lower step and slower cadence) was implemented. All participants completed the test. The primary limitation of YMCA is lack of calibrated VO2max data, and thus derived work capacity metrics must be a direct function of heart rate.

Findings: For site Idjwi and QC: 24% of participants post step-test heart rate was <120 bpm, 36% between 120 and 130 bmp, 10% between 130 and 140 bmp, 25% between 140 and 150 bpm, with 6% greater than 150. For site Kindu and YMCA: 4% of participants post step-test heart rate was <120 bmp, 36% between 120 and 130 bpm, 37% between 130 and 140 bpm, 19% between 140 and 150 bpm, with 0% greater than 150.

Interpretation: The YMCA step test did yield improved results for participant heart rates, with fewer unduly high heart rate post step test (QC 41% > 130 bpm, YMCA: 19% > 140). Lack of VO2max data for YMCA minimized usefulness of results. Therefore, a measure of work capacity is required with similar characteristics (limited equipment), is calibrated to accepted physiological measures (VO2max or other), and that considers study population characteristics (smaller stature), and cultural considerations (minimal tradition of purposeful exercise, and sensitivity to underdress for purpose of test administration). Such a test is being researched/developed.

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Abstract #: *2.059_HRW*

Developing an oral health education work plan utilizing a non-dental professional workforce in resource challenged communities in Rwanda: University of Maryland Baltimore Global Health interprofessional program experiences

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Program/Project Purpose: There are approximately 122 dentists and dental therapists in Rwanda serving 11 million people. This scarcity of oral health care providers creates an opportunity to build the workforce and human resources to promote and expand oral health education for the people of Rwanda. This shortage is even more apparent in rural villages where access to oral health professionals is rarely available. In the rural village of Rukira, Huye District and the Urukundo Home for Children in Muhunga, smooth surface caries were evident on the anterior teeth of many children. Seeking to improve oral health literacy in rural Rwanda, a work plan was developed for a private school (Urukundo) and a health sciences university student-led organization Rwanda Village Concept Project (RVCP) which works in rural villages. Through the oral health education work plan, it is expected to 1) increase the oral health knowledge of non-dental healthcare professionals (RVCP members) as well as community leaders (teachers in Urukundo); 2) promote an interprofessional partnership; and 3) increase the oral health knowledge and outcomes in two rural communities in Rwanda.

Structure/Method/Design: NIH and ADA guidelines for oral health education were used as a reference in designing and adapting an *oral health education work plan* to meet the circumstances in each group. The plan was reviewed by the teachers in Urukundo and students in RVCP, and revised to incorporate traditional and cultural values. We are seeking additional funding to continue this project.

Outcome & Evaluation: In a preliminary oral health survey done at an elementary school in Rukira, 52% of the children brushed their teeth and 50% missed school in the past year because their mouth or teeth hurt, illustrating a need for oral health education and care. RVCP has carried out teaching sessions with primary age children and given out donated toothbrushes.

Going Forward: Progress and challenges will be tracked using surveys as RVCP and Urukundo teachers continue to disseminate the oral health work plan. An innovative use of social media will allow for the maintenance and growth of the relationship as well as continuous communication, feedback and charity support.

Funding: None.

Abstract #: *2.060_HRW*

Level of hepatitis B virus protection of first year medicine and nursing students in Mbarara University

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Background: Worldwide 2 billion people are exposed to hepatitis B infection, 350 million have chronic infection, 65 million in sub Saharan Africa. In Uganda the prevalence of hepatitis B Infection is estimated at 11%.A 2010 study found that 60.1% of healthcare workers had evidence of hepatitis B infection and only 6.2% of Ugandan health workers were vaccinated. A university study indicates an exposure of 79.6%of Makerere students in the first clinical year, therefore students, through their clinical work are at high risk of acquiring HBV infection. Although HBV immunization for students is recommended, it's not strictly enforced. Routine childhood vaccination was begun in 2002. However this protection only applies to individuals under age of 12.The main objective of the study was to determine the level of hepatitis B virus protection of first year medicine and nursing students in Mbarara University.

Methods: Data collection was done in October of 2014. It was an exploratory study in Mbarara University of Science and Technology, Uganda, convenience sample of first year medical and nursing students; A six item questionnaire was used. Frequencies and descriptive statistics were run on variables. The study was approved at the department of nursing.

Findings: 122 students were invited. 73 students completed the questionnaires, 29 females, 44 males, average age 23.2 years, 49 first year medicine and 24 first year nursing students. 54 direct students from high school and 19 students who joined with a prior diploma. 78.1% had never been vaccinated (n = 57), 2.7% had received one dose (n = 2), 6.8% had received two doses (n = 5) and12.3% were fully immunized with three doses (n = 9).

Interpretation: The data indicates that direct medical and nursing students from high school have no prior HB protection and only students who have a prior diploma in medicine or nursing had