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**Background:** The Healthy Beginnings Initiative (HBI) is a congregation-based program designed to promote birth outcomes through an integrated approach to health education, depression screening and prenatal laboratory testing in Southeast Nigeria. HBI creates a network of community churches and local health facilities and use trained lay volunteer health advisors (VHAs) to recruit, test and educate pregnant women and their male partners. The aim of this study was to evaluate the impact of HBI through the VHAs perspectives.

**Methods:** A cross-sectional survey conducted during a 2-day training in September 2014, among 60 males and females VHAs selected by their communities from 40 churches in Southeast Nigeria. We utilized a mixed method approach using a structured and semi-structured 17-item questionnaire and a focus group analysis. The VHAs received training on preventable illnesses during pregnancy such as anemia, malaria, HIV, syphilis, sickle cell disease and hepatitis B and implemented an education program with onsite laboratory testing during church-organized baby showers from March 2013 through June 2014.

**Findings:** Ninety-seven percent of participants completed the survey and participated in the focus group meeting. A majority of the participants were females (78.9%), aged 40-49 (49.1%), married (82.5%), college educated (64.9%) and were employed (77.1%). The most commonly identified impacts of HBI were support for pregnant women (87%), increased awareness of these diseases (86%), male partner involvement (70%). Commonly identified barriers included insufficient support for completing tasks (69%), insufficient incentive (39.7%), lack of church leader support (43.1%) and losing participants during follow up (67.2%). A majority (82.5%) said they will continue their participation and role without an incentive.

**Interpretation:** Most church-based Volunteer Health Advisors indicate HBI had tremendous impact in their community and would like to see the program sustained even if they do not receive any financial incentive.

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### Shared learning in a mozambican clinic - internal medicine residents as medical student preceptors

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**Program/Project Purpose:** Interest in global health continues to grow among US medical students and residents as evident by the growing number of global health curricula. Emphasis has been placed on developing educational frameworks for US trainees, teaching about global burden of disease, health disparities, cultural competencies, health care systems and sustainability. Conversely, less attention is given to the education of medical students in developing countries whose training experiences intersect with these visiting US trainees. The University of Pittsburgh and Catholic University of Mozambique have partnered to create a shared clinical learning experience for Mozambican medical students and US medical residents which focuses on partnering resident preceptors with a group of medical students in a busy outpatient clinic with the aim to provide bidirectional learning.

**Structure/Method/Design:** Second and third year internal medicine residents from the University of Pittsburgh Medical Center's Global Health track joined 4th and 5th year medical students from the Catholic University of Mozambique in a busy urban clinic. The rotation was designed such that students evaluated patients individually then presented patients to the residents. Residents then saw patients with students allowing for bedside teaching, further history taking and clinical decision-making. The staff physician provided the role of consultant, seeing difficult cases in person when requested by students or residents and providing teaching to both sets of learners. Medical students and residents were surveyed on the educational benefits and drawbacks of working in this model.

**Outcomes & Evaluation:** Mozambican medical students and US residents reported strong overall satisfaction with the shared clinical learning experience model. Medical residents valued seeing a larger volume of cases and the balance of teaching students on chronic disease evaluation and management while having the appropriate supervision to learn management of common tropical infectious, respiratory and dermatologic diseases. Medical students valued increased preceptor availability, increased teaching particularly on diabetes, hypertension, and heart failure and instruction on EKGs and ultrasound use. Both groups noted benefit from comparing differences in disease management between countries. Both groups reported language barriers and increased patient visit length as primary drawbacks.

**Going Forward:** We find that a shared clinical learning experience model incorporating US residents as supervised preceptors to Mozambican medical students has benefits to both groups of learners. Mozambican medical students were particularly interested in US resident's teaching on non-communicable diseases, which had not been emphasized elsewhere in their training. Appropriate supervision from a local staff physician was identified as a key component for success. Future development of specified curricula for both groups of learners may increase the educational yield of this experience. This collaborative educational partnership may also allow for expansion to partnered quality improvement and scholarly projects.

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### Developing rheumatology capacity in Haiti: Piloting a rheumatology training program, establishing a teaching clinic, and advancing medical curriculum

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**Program/Project Purpose:** As of September 2014, Haiti has only two rheumatologists for a population of nearly 11 million, thus rheumatic diseases are often undiagnosed and undertreated. At the population level, there is demand for serologic testing and anti-rheumatic drugs, but diagnostic capabilities are limited, as are therapeutic options. Improved diagnostic and therapeutic modalities are possible, but no developmental incentive exists without practicing rheumatologists. The medical curriculum at the State University of Haiti (UEH) calls for rheumatology training, but the UEH Medical

and Pharmacy School (FMP) and State University Hospital (HUEH) have not been able to provide this from year to year. The University of California Haiti Initiative (UCHI) hopes to implement a collaborative rheumatologic training program between the University of California Los Angeles (UCLA) and UEH, in attempt to rebuild medical and teaching capacity in rheumatology.

**Structure/Method/Design:** Dr. Belliot, a Haitian Internist at UEH, was selected by UEH FMP administration to complete a five week observership at UCLA in August 2014, where she learned rheumatologic physical exams, joint injections, and principles of rheumatic disease. She is currently completing one year of clinical training at UEH and will manage rheumatology patients under the supervision of Dr. Rebecca Gordon (UCLA) via telecommunications, and on-the-ground by Dr. Else Chalumeau (HUEH Chief of Internal Medicine). From November 2014 – October 2015, Dr. Belliot will be assessed regularly on theoretical knowledge and clinical skills periodically upon visits to HUEH by Dr. Gordon. We are building a network by recruiting rheumatologists worldwide who can both deliver lectures at distance and visit Dr. Belliot to co-host rheumatology weeks where patients will be seen at higher volume. Subsequent years will be dedicated to teaching methodologies and epidemiologic research.

**Outcomes & Evaluation:** Dr. Belliot is currently managing 17 patients: 2 systemic lupus erythematosus (SLE), 7 rheumatoid arthritis (RA), and 8 osteoarthritis. Her SLE patients are improving with no renal involvement. All knee joint injections have been performed successfully to date. Her first clinical evaluation will occur in January 2015 by Dr. Gordon and Dr. Chalumeau. Written examinations are under development. We are keeping record of: 1) Number of outpatient rheumatology clinics held at HUEH 2) Number of patients seen at the rheumatology outpatient clinic 3) Number of inpatient rheumatology consults delivered 4) Increased availability of anti-rheumatic drugs at HUEH 5) Number of lectures delivered at HUEH Before-and-after comparisons of patient volume will be used to assess impact after the 3rd quarter (8-month mark).

**Going Forward:** Grow network of mentoring rheumatologists worldwide Build laboratory capacity at HUEH Advocate for essential rheumatology drugs to be incorporated in the national essential medicines list (NEML). Conduct secondary analysis of hospital records.

**Funding:** International League of Associations for Rheumatology DirectRelief.

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### Emergency nursing in Ghana: Outcomes after a five year pilot program

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**Program/Project Purpose:** In this Abstract we describe the outcomes surrounding emergency nursing clinical practice in Kumasi, Ghana, five years after the implementation of an emergency nursing education program. The burden of injury in sub-Saharan Africa (sSA) is increasing rapidly, pointing to the need for skilled health care workers to manage this serious public health threat. Nurses represent the largest health workforce in sSA. While providing effective emergency and trauma nursing care is a significant challenge due to limited human and infrastructure resources, strengthening the provision of health services, including the nursing workforce, represents a step forward in addressing this burden. A modern Accident and Emergency Center opened in Kumasi, Ghana in 2009, along with an

emergency nursing education pilot program. The goal of this pilot program was twofold: 1) to create a cadre of highly trained emergency nurses that could provide direct clinical care and 2) to develop a sustainable education program using low-resource technology that could be easily replicated at a low cost.

**Structure/Method/Design:** All training materials including curriculum, lecture materials, and examinations are in place, and shared between stakeholders. An exchange program has been implemented where Ghanaian emergency nurses selected as future preceptors train in the United States for a period of one month each year. Key stakeholders are the University of Michigan School of Nursing and Department of Emergency Medicine, the Komfo Anyoke Teaching Hospital and the Kwame Nkrumah University for Science and Technology. Together this pilot program evolved from a conceptualized six-week training program to a two-year fully accredited Bachelor's of Science in Emergency Nursing. Didactic lectures delivered by visiting faculty, skills based laboratory sessions, patient simulation and mentored clinical experience encompass the formal education. Key to the long-term success of this program is the plan for sustainability. The program is based on a modified train-the-trainers model to replace external faculty with internally trained KATH nursing leaders as the program is developed.

**Outcomes & Evaluation:** We present our findings through qualitative interviews with graduates of the program, physicians, and hospital administrators. Themes that emerged from the qualitative analysis were teamwork, confidence, challenges with existing systems and eagerness to advance.

**Going Forward:** Going forward, a high quality program ensuring the advancement of emergency nursing practice that will help develop the specialty within Ghana is currently in place. Thirty-six nurses have graduated from the program and another twenty-six are currently enrolled. Six nurses have completed an intensive immersion in emergency nursing practice and teaching in the United States. Graduates of the program are serving as leaders in the developing specialty of emergency care in Africa.

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### The undergraduate as global citizen: A survey of student attitudes and engagement on global issues

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**Program/Project Purpose:** The aim of this study was to assess university students' attitudes and engagement on global health and development issues and the extent to which they hold themselves and their governments responsible for addressing them.

**Structure/Method/Design:** As part of an undergraduate academic course in Spring 2014, fifteen students conducted semi-structured interviews with undergraduate male and female students to assess the nature and extent of student knowledge and engagement on global issues. Participants were also asked questions about language skills, international travel experience, coursework relating to global issues, sources and frequency of access to global news, their views as to where responsibility resides for addressing global challenges, and the nature and extent of their engagement in activities relating to global issues. Working with an analytical sample of 216 respondents who provided complete answers to all variables of interest, data was analyzed using chi-square tests and logistic regressions to determine the extent to which the findings varied by student attributes and life experiences.