

poor healthcare infrastructure that may compel trainees to practice beyond their level of training, healthcare services delivered that may compete with local services and deplete limited resources. We aim to increase educational programming to try to minimize these potential pitfalls.

**Structure/Method/Design:** At the University of Florida students participate in two models of global health trips. The first model is a one-week STMM to Central and South America offering trainees experiences in high volume clinics focusing on practicing clinical decision-making in low resource settings. The second model is a two-month trip to Peru focusing on a health education program, allowing students to improve their communication skills with patients and experience cultural immersion while building capacity with possible longer term impact. Due to the proven effectiveness of the educational program, some of the STMM trips have begun to implement educational programs into the clinical programs.

**Outcome & Evaluation:** We are still evaluating the impact of the clinical trips. However, the STMM trips that have begun to implement educational programs into the clinical programs demonstrated a positive effect on the local population healthcare knowledge. These programs have the potential to continue after they are initiated and create a lasting impact on health knowledge in the community.

**Going Forward:** The educational model in STMM may provide additional long-term benefits in the partner community through increased medical knowledge and educational program capacity building, while continuing to provide a culturally immersive learning experience. The focus of the trip is transformed from clinical service to public health education. This model may minimize many of the ethical problems faced by STMM trips and is more in accordance with best practice guidelines for global health programming.

**Source of Funding:** None.

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### Continuing Education and Job Satisfaction in a Rural Haitian Hospital

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**Program/Project Purpose:** UCSF School of Nursing, Partners In Health (PIH) and its affiliated Haitian organization, Zanmi Lasante (ZL), collaborated to develop training and mentorship programs in a low resource setting. To date, the partnership has completed two years of nurse education, leadership development and quality improvement training.

Program objectives: develop sustainable models for strengthening the nursing role in the delivery of health care in Haitian hospital settings; increase access to continuing education opportunities for nurses in low resource settings.

Evaluation objective: Understand nurse's desires and perceptions about their jobs and work environment.

**Structure/Method/Design:** An academic-community partnership of global health nursing professionals evaluated a continuing education program for nurses in a Haitian hospital.

Program evaluation components include:

- Advisory Committee engagement in evaluation design and implementation, interpretation of evaluation results and development of recommendations

- Survey of 31 nurses and nurse auxiliaries

- Focus groups discussions with 15 nurses and nurse auxiliaries

**Outcome & Evaluation:** Evaluation results highlight working conditions and educational opportunities as the most important factors influencing nurses' job satisfaction. Other themes included recognition and interprofessional team collaboration. Haitian and American partners on the evaluation's Advisory Committee interpreted the results and formulated recommendations for future program planning.

**Going Forward:** This information, utilized by nursing leadership and educators, informs the development of educational programming and organizational improvements that respond to nurses' needs, with the aim of increasing satisfaction and retention of nurses.

**Source of Funding:** Private philanthropy.

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### Motivating Factors Contributing to Retention of Community Health Workers in Rural Liberia: A Qualitative Study

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**Background:** A shortage of doctors, distance to health facility and poor infrastructure make accessing healthcare difficult for communities in rural Liberia. In order to provide basic healthcare to Liberians living more than 5 kilometers from the nearest health facility and strengthen its health system weakened by civil war and Ebola, the Liberian Ministry of Health plans to scale up a community health worker (CHW) program piloted by Last Mile Health, and recruit 4000 CHWs over the next five years. We aimed to understand the factors which contribute to CHW retention, as worker retention is key in building a sustainable CHW program.

**Research question:** What are the intrinsic and extrinsic motivating factors which contribute to the retention of community health workers employed by the Last Mile Health program in Liberia?

**Methods:** Using purposive sampling, we conducted 27 semi-structured interviews with CHWs exploring their reasons for becoming CHWs, how they feel about the work they are doing, and the ways in which their work impacts their lives and their families' lives. The interviews took place over six weeks, from May 2016 to June 2016, in Grand Gedeh and Rivercess Counties, Liberia. The interviews were coded and analyzed using thematic analysis and Dedoose software.

**Findings:** Five major motivating factors contribute to CHW job satisfaction and retention: income, knowledge and aspirations, pride, serving their community and support from Last Mile Health.

CHWs, with different life experiences, are motivated in the work because they find personal fulfillment in ways previously unavailable to them. They are also motivated by the perceived improvement in health and economic security of their families and communities. CHW motivation can be viewed through the construct of betterment of self, family and community.

**Interpretation:** This study illuminated important motivating factors which lead to job fulfillment for CHWs, all of which are intertwined and drive towards betterment. Financial incentives are important, but there are other, equally important motivating factors. In building a robust CHW program, attention needs to be paid to supporting personal growth, economic support, and engagement with the community. By recruiting CHWs from within the community and providing ongoing training and supervision, Liberia can take an important step forward in strengthening its health system.

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### Creating a Bidirectional Culture of Safety in Global Health Electives Via Comprehensive Safety Protocols

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**Program/Project Purpose:** Despite refinement of selection tools and pre departure orientations in response to rising participation in global health electives, the development of safety protocols trails behind as attention has been on ethical and emotional issues, illness, and infection, while studies that do address safety lack comprehensive solutions vital to sustaining these electives and protecting involved parties. The Liaison Committee on Medical Education deems it the responsibility of global health programs to uphold the highest possible safety standards for participants and faculty members. We believe this extends to host institutions. Thus, a thorough investigation of the sociopolitical and cultural context of each elective site is needed for the systematic compilation of safety hazards and corresponding solutions, with the ultimate goal of preventing harm to participants, and to patients and host institutions by participants.

**Structure/Method/Design:** The CUGH webinar *Rules for the Road: Global Health, Safety and Security for Deploying Students, Staff, and Clinicians Overseas* provided impetus for this study. Following a comprehensive literature review of safety issues in global health electives, potential safety risks were detailed by program alumni and site administrators from each elective site. Using this data, along with that from weekly reflections submitted by students during their electives, a master prototype was developed and sent to each site's program directors, faculty, and supervisors for final revisions which were formatted into the safety protocols.

**Outcome & Evaluation:** Each protocol contains seven sections: accidents/injury, crime, discrimination, illness, mental health, political unrest, and violence, with subsections "precautions," "warning/anticipated problems," and "what to do in case of an incident."

**Going Forward:** To our knowledge, we are the first to comprehensively address safety issues. Our program is based in safety throughout its entirety. Simulation labs, vignettes from former elective participants, strong infrastructure in elective sites, and constant communication via feedback create a supportive safety network. To uphold bidirectionality, we are currently broadening safety measures for patient populations and our partners in host countries. We call on safety experts and global health leaders to collaborate in creating optimal protocols, and recommend an annual collaborative conference, as well as a journal, aimed toward creating a culture of safety.

**Source of Funding:** Western Connecticut Health Network.

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### Utility of WhatsApp Messenger to Promote Communication in a Medical Department in Malawi

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**Background:** The use of mobile phone technology in healthcare has the potential to improve patient care and medical education. We evaluated the use of a WhatsApp messaging group among clinical staff of the Internal Medicine department at Kamuzu Central Hospital in Lilongwe, Malawi. WhatsApp is a low-bandwidth instant messaging platform that allows users to send and receive text messages and media as a low-cost alternative to SMS.

**Methods:** Messages exchanged over the course of one month in 2016 were reviewed and categorized by purpose. In addition, some of the clinical staff were surveyed about usage and feedback (n=18).

**Findings:** A total of 556 messages were reviewed, of which 37% were directly related to patient care, such as test result queries, clinical questions asked of consultants, discussion of management, or shared teaching points. Department news, such as announcement of meetings, call schedules, or out-of-stock tests or medications, accounted for 23% of messages. The majority of those surveyed felt the use of the WhatsApp group improved patient care (83%). Most viewed the group at least several times a day (89%), and 39% viewed the group every time they received a notification about a new post. The top reported use for the group was tracking lab results (78%), as the hospital does not have a laboratory reporting system or electronic medical record. Other common uses were finding an answer to a clinical question (72%) and obtaining information about hospital services (61%). Suggestions for improvement included avoiding posting of material unrelated to patient care (jokes, external news, etcetera) and preventing the dissemination of identifying patient information.

**Interpretation:** The use of a department wide WhatsApp group was perceived as beneficial in the day to day activities of staff members, but steps should be taken to limit unprofessional or extraneous posts to the group and to protect patient privacy.

**Source of Funding:** None.

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