occurred, but much was left unresolved. Physicians there still struggle with a lack of adequate resources and an abundance of patients in need; all this is further complicated by a struggling economy and massive physician shortage. The Dartmouth Haiti Response was formed in response to the earthquake, and involved several specialized support teams traveling to the island to offer healthcare services. This began the start of a joint project that would aim to mutually benefit physicians-in-training in two very different medical settings.

Structure/Method/Design: "Haiti Report" is a monthly resident's morning report that involves videoconferencing between internal medicine residents at the Dartmouth-Hitchcock Medical Center and residents from Hôpital Universitaire de Mirebalais and Université d'Etat de Haiti. At each report, a presenter will share an interesting patient case that is open for both groups of residents to discuss and work through.

Outcomes & Evaluation: In this setting, Haitian residents can learn about the diagnostic and therapeutic process in patients who have often been referred from outside hospitals for higher level tertiary care. During the Haiti resident cases, Dartmouth-Hitchcock residents can learn the value of more basic investigative practices and what the best diagnostic and treatment strategies are when resources are scarce. Both parties can learn a great deal from each other in recognizing the vast differences in medical systems and how geo-political and socioeconomical factors play large roles in healthcare delivery. However, perhaps one of the most valuable lessons gained from these conferences is that despite so many differences in our backgrounds and resources, there are countless aspects of good patient care that are universal to all healthcare providers.

**Going Forward:** This pilot project has had to withstand several challenges in its early years of development. The language barrier between residents was an initial concern and hindered the free flow of discussion between groups. Having bilingual presentation slides and a **Funding:** There is currently no funding required for this initiative. Abstract #: 02ETC053

## Primary care development in Southeast Asia: Building an essential foundation for health systems

J. Markuns<sup>1</sup>, L. Goldman<sup>2</sup>, S. Cummings<sup>3</sup>, A. Montegut<sup>4</sup>; <sup>1</sup>Boston University Global Health Collaborative, Boston, MA/US, <sup>2</sup>Boston University Family Medicine Global Health Collaborative, Boston, MA/US, <sup>3</sup>Boston University Family Medicine Global Health Collaborative, Providince, RI/US, <sup>4</sup>Boston University Family Medicine Global Health Collaborative, Portland, ME/US

**Program/Project Purpose:** Many improvement efforts in global health are consistently hampered by insufficient and unprepared health systems lacking a sufficient primary care workforce and delivery system. Whether managing infectious outbreaks or the increasing burden of chronic disease, there is an acute need to address inequities in health by shifting global health efforts towards a stronger focus on primary care development. We share our approach to primary care systems strengthening over nearly 20 years in countries of southeast Asia that are early on the continuum of development. Our aim has been to develop systems to effectively train, support and integrate competent primary care physicians for health systems as part of an effort to address human resource development of the primary care workforce.

Structure/Method/Design: Primary efforts have targeted capacity building through training of a competent primary care workforce,

initially focused on developing formal specialist training for primary care physicians. We have applied this approach in Vietnam with over 600 family physicians trained, and are currently working with the MInistry of Health on further scale-up and policy supports. We have completed a similar pilot program in Laos, and are in the early stages of supporting similar programs in Cambodia and Myanmar. Key to the sustainability of this approach has been the engagement of local stakeholders for policy integration coupled with implementation performed exclusively by local partner universities to train and support primary care physicians.

**Outcomes & Evaluation:** The success and sustainability of the training programs in Vietnam is evident now with over 600 family physician graduates and continued training at most universities. Quantitiative evaluation results have shown that knowledge and confidence of physicians are improved in multiple clinical areas, and measured observations of clinical practice indicate improvements. Similar results were seen in our pilot program in Laos, with qualitative results identifying far-ranging improvements in practice, especially in community and maternal health. Most importantly, Ministries of Health and local health authorities are highly supportive of these programs and continue to seek enrollment of their health staff in these programs.

**Going Forward:** Maintaining training capacity and carrying out national-level scale-up remain the biggest challenges. The World Bank has recently entered into a \$126 million Health Professionals Education and Training for Health System Reforms Project with Vietnam to imp

**Funding:** Current funding from the China Medical Board, the Atlantic Philanthropies, and GHETS.

Abstract #: 02ETC054

## Fostering institutional collaboration: Building global virtual partners

D.W. McKinley<sup>1</sup>, A. Iacone<sup>2</sup>; <sup>1</sup>Foundation for Advancement of International Medical Education and Research, Philadelphia, PA/US, <sup>2</sup>ECFMG, Philadelphia, PA/US

Program/Project Purpose: International student exchange experiences are increasingly popular, particularly in developing countries. The Global Education in Medicine Exchange (GEMxSM) was developed to facilitate multilateral partners among schools by committing to shared values that transcend differences in culture, curricula, resources, and local health care needs. GEMx is comprised of three components: a web-based system, a Charter, and regular virtual meetings. The Charter outlined school roles and responsibilities and defined activities that would be undertaken by home schools (those sponsoring students) and host schools (those receiving students). GEMx promoted development of the partner school network through face-to-face and virtual meetings. The use of collaborative technology is increasing because it can reduce expense and can be effective, particularly for information sharing (1). However, the virtual environment can be void of contextual cues that promote trust, and can leave participants feeling isolated (2). The purpose of this investigation was to evaluate the extent to which new collaborations between schools could be developed through the GEMx partnership.

Structure/Method/Design: In 2013, partners at 20 medical schools were recruited. GEMx hosted three face-to-face meetings with representatives from eight of the 20 schools and six virtual meetings (webinars, conference calls) to promote multilateral partnerships. In October 2014, representatives of partner schools were

asked to report on expansion of partnership opportunities through GEMx.

**Outcomes & Evaluation:** Based on their responses to open-ended questions, the participating partner schools indicated that the GEMx application system could be useful in promoting transparency because schools can promote the exchange opportunities they provide. Two schools formed new partnerships during the initial phase of GEMx. While virtual meetings could be used for information sharing, face-to-face meetings were thought to increase familiarity and promote engagement that would provide the basis for formation of virtual relationships. Some representatives of partner schools recognized the need for additional effort on the part of their schools and stated that dedicated staffing and time were needed to support these efforts. GEMx regional meetings are planned to foster a sense of community that can support virtual team formation and foster multi-institutional collaboration.

**Going Forward:** Global virtual partnerships may not work without the integration of face-to-face meetings establishing an atmosphere of trust in order for global virtual partners to collaborate. The identification of common needs and goals of partner schools by a facilit **Funding:** No funding listed.

Abstract #: 02ETC055

## Implementing and evaluating a sustainable early child development program in Limpopo, South Africa: A pilot study

G. Milbrath<sup>1</sup>, V. Gopinath<sup>2</sup>, C. Constance<sup>3</sup>, A. Ogendi<sup>2</sup>, M. Compton<sup>4</sup>, J. Plews-Ogan<sup>2</sup>; <sup>1</sup>University of Virginia, Loveland, CO/US, <sup>2</sup>University of Virginia, Charlottesville, VA/US, <sup>3</sup>University of Virginia, Charlottesville, VA/CA, <sup>4</sup>University of Virginia College at Wise, Wise, VA/US

**Background:** According to the World Health Organization, inadequate cognitive stimulation affects 20-25% of children in the developing world, resulting in an estimated 20% loss in adult productivity. Consistent evidence from early child development (ECD) literature states that interventions providing increased cognitive stimulation or learning opportunities to young children significantly increase cognitive and social-emotional competence later in life. The purpose of this study was to determine the suitability and feasibility of an ECD assessment tool and program to improve ECD in Limpopo, South Africa.

Methods: A mixed-method approach was used to determine the feasibility and cultural acceptance of an ECD assessment tool and intervention. The sample consisted of 18 primary health nurses employed in the Vhembe Health District of South Africa. Focus groups were conducted to select an appropriate assessment tool and discuss the barriers and feasibility of implementing an ECD program. The Ages and Stages developmental screening tool and the CAT/CLAMS developmental assessment tool were taught and discussed with the focus group participants. An educational intervention was used to teach nurses about ECD, the ECD program, and ECD interventions for parents. Knowledge surveys were used to compare pre-existing and learned content related to ECD. Quantitative data were analyzed using descriptive and inferential statistics to compare pre- and post- intervention knowledge. Qualitative data were analyzed using conventional content analysis.

**Findings:** The Ages and Stages program was most feasible for this population. Knowledge of ECD significantly improved after the educational intervention (p < 0.0001). Nurses believed that ECD monitoring and interventions are needed to improve child health;

however, time constraints, cultural and language modifications, financial concerns, and administrative challenges were identified as barriers to implementation.

**Interpretation:** Overall, a child development monitoring program using low-cost and culturally appropriate tools is feasible in this community. Limitations include time, cultural barriers, and a small non-generalizable sample. Future research includes assessing children using a culturally adapted tool and increasing the area of screening and participation.

**Funding:** This study was jointly funded by the University of Virginia Jefferson Public Citizens Program and the University of Virginia Center for Global Health.

Abstract #: 02ETC056

## Reflection and debriefing: Tools for fostering student emotional learning during and after international health electives

C. Miller, C. Satterfield, P. Patel, M. Dacso; University of Texas Medical Branch, Galveston, TX/US

Program/Project Purpose: During international health electives (IHEs) medical students experience the challenge of working in resource-limited healthcare settings firsthand. In addition to the mental and physical challenges related to their clinical, laboratory, and scholarly work, students often experience challenges that are emotional in nature. To help students identify and explore these emotional challenges, the Center for Global Health Education at the University of Texas Medical Branch (UTMB) piloted a Reflection and Debriefing assignment for students participating in summer 2014 IHEs This assignment had two components: A written reflection narrative, and attendance at an optional debriefing session three weeks after the IHE. For the reflection narrative, students described and critically reflected on a specific experience during their IHE that had a significant emotional impact on them. The debriefing session was a faculty-facilitated discussion on ethical, moral, and emotional challenges experienced during the IHE; as well as readjustment to life at home. Reflective writing and debriefing are techniques that have benefitted students and professionals returning from emotionally-charged situations, helping them process and learn from the situation, preventing burnout, and fostering professional identity formation.

Structure/Method/Design: The goal of this assignment is to identify and help students more effectively process emotions, challenges, and ethical dilemmas potentially encountered during IHEs. Participants in the assignment include all students who travelled on IHEs through UTMB. Completing the reflection narrative is required to receive credit; while debriefing session participants were selfselected. Faculty mentors are available to assist students throughout the IHE and reflective writing process to encourage assignment viability.

**Outcomes & Evaluation:** Forty-nine students completed reflection narratives and nine students participated in the debriefing session in summer 2014. To measure the effectiveness of the assignment's ability to identify and help students process emotions, challenges, and ethical dilemmas potentially encountered during IHEs, monitoring and evaluation will be conducted by analyzing the content of the reflection narratives through an analysis of key words, and by analyzing the results of an evaluation survey for the debriefing session. Evaluation questions assessed the session's ability to help students explore, process, and better understand their emotions during and after their IHE.