

To date, EM education in Bolivia and Venezuela has been scattered among independent agencies, each with their own training programs and certifications. International courses such as ACLS and ATLS are sometimes available, but these are often too expensive and too seldom to provide universal training.

**Structure/Method/Design:** To assist the development of EM education in Bolivia and Venezuela, the nonprofit A Tu Lado (ATL) collaborates with providers and public universities to build accredited courses that meet the needs of local medical, police, and fire agencies. ATL was founded by a group of undergraduate students from institutions across the United States, and works directly with students in South America to support these initiatives.

Invitations to collaborate are extended by local organizations. From this connection, ATL and its partners invite the participation of key stakeholders, including universities and emergency response groups. ATL then facilitates a three-step process:

Needs Assessment (step 1): Visit the prospective site to meet partners and stakeholders, assess community strengths and needs, and design a curriculum.

Model Course (step 2): A condensed course on prehospital care facilitated by A Tu Lado and co-taught with local instructors. This course serves as an opportunity to test the curriculum and to strengthen local partnerships.

Full Course (step 3): An expanded course taught exclusively by local instructors. The course's adoption and accreditation by a public university positions the program as a national model for replication.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Venezuela: Grupo Venemergencia, Universidad Simón Bolívar (USB), IESA. Bolivia: Universidad Mayor de San Simón (UMSS), Mano a Mano, SAR Bolivia. United States: University of Minnesota Department of Emergency Medicine; Princeton University; Macalester College Emergency Medical Service.

**Summary/Conclusion:** More than 180 students have been trained through ATL-affiliated courses. USB concluded Venezuela's first university-based EM technician course in May 2014 and began its second in September 2014. UMSS began Bolivia's first integrated EM training module for medical students in 2014.

Central to the success of these projects was their collaborative foundation and the model course, which provided an opportunity for stakeholders to establish a dialogue about course content and form a coalition that could advocate for EM standardization.

### Global health: Burn outreach program

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**Background:** Doctors Collaborating to Help Children is a nonprofit corporation that partners with multiple organizations including Massachusetts General Hospital and Shriners Hospital for Children in Boston, MA, which has established an outreach program with Ukrainian physicians to improve the care of patients with burn injuries. The goal of the program is to establish a sustainable and increasingly productive collaboration to treat burn patients in a resource-constrained environment. The program has grown from a collaborative effort with Ukrainian physicians and health care officials. With this collaboration, a multipronged approach has been developed to address the gaps in burn care as discovered by years of interaction with the medical community in Ukraine.

**Structure/Method/Design:** Contact was initiated with the burn unit of a single municipal hospital in Lviv, Ukraine. Patients with burn injuries were screened and selected patients were comanaged over a 3-year period by American and Ukrainian physicians. This

comanagement included repeated evaluation both by telemedicine conferencing as well as annual trips with physicians from Boston, MA, traveling to Ukraine to assess patients in an outreach clinic and perform surgical procedures. Over three successive annual mission trips, a total of 123 patients, ranging from 1 to 44 years of age, were seen and evaluated by the surgical and anesthetic teams.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** In our first trip in 2011, we assessed 22 patients and operated on 5. In 2012, 38 patients were evaluated and 12 had combined surgical intervention. In our 2013 trip, 63 patients were evaluated and we operated on 22 burn victims. Multiple clinical research projects related to burn prevention and improving perioperative care have been initiated, presented at national meetings, and submitted for publication in peer-reviewed journals.

**Summary/Conclusion:** Our outreach program in Lviv, Ukraine strives to improve overall burn care by a multilayered approach. These elements can serve as a possible template for additional international burn outreach plans as it can be customized for both large and small interventions.

### Leveraging health informatics for a global health needs assessment at home

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**Background:** Existing technologies facilitate rapid and easily updated reporting systems for changing situations such as epidemic surveillance (e.g., "GeoSentinel," "Distribute," etc). Knowing the location, type, and description of global health work performed by staff in a health care institution is important for collaboration, capacity building, and safety of those doing the work. However, information collection is often inefficient with no ability to track these characteristics in real time. To address this problem, health informatics was used to create an online "health map" to capture global health activities of staff at a pediatric tertiary hospital. Objectives: To pilot a mechanism for collecting real time data on global health activities of hospital staff; to characterize types of projects and partnerships and display this content on a "health map" for use by the hospital community.

**Structure/Method/Design:** A survey tool querying information regarding staff contact information, project type, countries of involvement, and partnerships was disseminated to staff at Boston Children's Hospital. Analysts collated responses and created a "health map." Each point on the map represents a unique project/partnership. Individuals with projects on the map can access and update information regarding project status and progress on an ongoing basis. The map was then made accessible to all.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Staff reported 86 unique projects, with physicians and nurses equally represented (37% and 41%, respectively). Attending physicians were more likely to be involved in  $\geq 2$  projects (relative risk, 2.1). Pediatric medicine and pediatric surgery had the majority of projects (80% and 18%, respectively) spread over subspecialties. Projects are being conducted in 42 countries. International partners were primarily academic medical centers (56%) and NGOs (34%). Four countries had multidisciplinary involvement due to formal institutional partnerships. Project themes focused on infrastructure/health systems development (23%), physician education (22%), and nursing education (18%).

**Summary/Conclusion:** Innovative technologies like the health map that employ crowd sourcing facilitate rapid institutional-level data

collection in global health, which can be used by leadership for program planning. It allows for information dissemination and skill sharing, and fosters collaboration in initiatives of common interest across departments and sites for maximum global impact.

### **A sustainable approach to the training and education of health promoters through incorporation into medical student and resident education**

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**Background:** Worldwide, health promoters (HPs) are a crucial part of the health care workforce. Studies show that HPs improve access to health care and overall community health status. HPs fill many roles including serving as a bridge between the community and the health system, providing culturally accessible health education, administering health screenings, and providing informal counseling and social support. To best serve these roles, promoters need adequate training and support. With appropriate orientation and education within the necessary on-the-ground infrastructure, family medicine residents and medical students have the ability to provide this training. Students and residents from the University of Cincinnati were trained in the concepts of community health education and applied these skills while working with the nongovernmental organization, Timmy Global Health, in Ecuador in April 2013.

**Structure/Method/Design:** As part of a global health course, medical students and residents developed a curriculum for two groups of HPs, one urban group in Quito and one rural group in the Amazon Basin region of Napo. In the weeks before the trip, faculty and resident leaders collaborated with Timmy staff and HPs in Ecuador to identify high-impact topics. In Quito, topics included mental illness, diabetes, geriatrics, and hypertension. In Napo, topics included mental illness, prenatal and infant care, geriatrics, and diagnosing inguinal hernias to prepare for an upcoming surgical brigade. In both areas, we developed interactive educational sessions discussing the role and responsibility of being a promoter, including patient advocacy.

Each site received four interactive workshops over a 2-day period provided by medical students and residents. Sessions included team-building exercises, small-group activities, skills practice, and Q&As. Following each session of two lectures, HPs completed a brief quiz based on that day's material. Quizzes were read aloud at each site and included both words and pictures to reach multiple educational levels. Teaching was further enforced as HPs applied their new knowledge with providers during clinics following lectures.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Timmy Global Health

**Summary/Conclusion:** Based on a small sample size, it is difficult to draw definitive conclusions from the post-teaching quiz data. Some general themes included greater knowledge with hypertension, diabetes, and infant care. Lower scores were seen in areas of depression and geriatrics, both in the urban and Amazon Basin group. Challenges included transmitting a large amount of needed information in relatively small amounts of time. Results will assist future teams to provide focused training sessions for HPs on specific topics.

### **A case-based approach to village health worker supervisor continuing education**

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**Background:** In the developing world, village health workers (VHWs) are the primary care contacts for many, providing direct care, prevention, education, timely referral, and on-site data collection to inform public health initiatives. While supervision of VHWs has been considered essential to the function of VHW programs, little attention has been given to the education or continuing education of VHW supervisors—RNs and clinical officers (midlevel providers). We sought to develop a novel program of continuing education for VHW supervisors that integrates education with a report form documenting supervisory highlights, inspired by a case-based “ambulatory morning report” utilized at Montefiore in house staff education.

**Structure/Method/Design:** In 2007, a VHW program was established in the rural Ugandan district of Kisoro through collaboration between the NGO Doctors for Global Health (DGH), Montefiore/Einstein, and the Kisoro District Hospital. In 40 villages, the program employs 55 VHWs who provide care for common problems, education, screening, and referral. Five VHW supervisors meet with each VHW in their village biweekly to review health-related activities. We developed a VHW supervisor report form that solicits the two to four most important cases/issues addressed in supervision, and incentivized VHW supervisors to complete the form by giving them “points” toward their annual bonus. In 2012, Global Health and Clinical Skills (GHACS) faculty fellows (internal medicine faculty from Montefiore who work in Kisoro as part of a faculty development fellowship) initiated continuing education sessions every 2 weeks based on issues recorded on supervisor reports. Three to four themes, selected through faculty review of the forms, were presented and discussed by the faculty fellows at the 1.25-hour continuing education sessions with the VHW supervisors.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Supervisors submitted an average of 19 supervision reports per month from among 30 supervisions performed (63%). Topics discussed were varied and included infectious diseases (e.g., fear of ebola, pneumonia vs. asthma), women's health (e.g., myths about contraception, birth spacing), and social issues (domestic violence). In 1 year, 80 to 90 “real” themes were discussed, with some surfacing repeatedly, allowing increased attention to common issues from diverse perspectives. Informal feedback suggests that the effort invested in supervisor documentation heightens sensitivity to and reflection about the most challenging issues encountered during VHW supervision. Supervisors provided very positive oral feedback and enjoyed the continuing education case-based format (written evaluations pending).

**Summary/Conclusion:** The use of VHW supervisor report forms that document actual cases and health issues that arise in the villages provides immediate relevance to continuing education sessions. The report-based format provides time for the faculty-facilitator to focus on and prepare pertinent points to discuss. The act of supervisor documentation also provides insight into the prominent health concerns of the villagers, and permits identification and analysis of key events encountered in village-level primary care in rural Africa.

### **Nursing education in Africa: A multcountry initiative**

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**Background:** The US President's Emergency Plan for AIDS Relief (PEPFAR) Nursing Education Partnership Initiative (NEPI) is a 5-year subproject of the Nursing Capacity Building Program that aims to 1)