Better preparing emergency medicine physician trainees for global and rural practice settings: a longitudinal component of University of Arizona’s South campus emergency medicine graduate medical education curriculum

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Program/Project Purpose: University of Arizona’s South Campus Emergency Medicine (EM) residency program created a unique Global, Border, and Rural Health (GBRH) curricular component to increase recruitment/training of Emergency Physicians to staff rural resource-limited settings in Arizona and internationally. This program addresses national efforts to better educate clinicians in population-based health, intercultural care, and ultimately reduce health disparities locally and globally. With 30% of Arizona being primarily Spanish speaking in 2010 and projected to reach 50% by 2030, this program also aims to increase quality of care in the Spanish speaking population through reducing language barriers by integrating Spanish language training.

Structure/Method/Design: This ACGME residency training institution has a specific GRBH focus across clinical specialties and trains 400 medical students and 450 post-graduate resident physicians annually. The 6 EM residents/year enrolled in the 3yr program apply according to the ACGME “match” process. The GRBH curricular components embedded in the EM residency program include: a required rural clinical rotation, longitudinal GRBH lecture series with medical Spanish/cultural competency training, and an opportunity to become a dual-role Spanish interpreter. A “Distinction Track” is available and aligns academic requirements with clinical rotations to complete an educational or quality improvement project in capacity development with rural/ international collaborators. Formative program assessments include ACGME milestones attainment, faculty evaluations, rural/ global site evaluations, self-evaluation and individual biannual medical Spanish language assessments. The GRBH curricula component is revised based on programmatic feedback and evolving guidelines.

Outcome & Evaluation: Since 2010, twenty-two resident physicians completed the program, with several taking clinical jobs in rural hospitals. Eight EM residents qualified as dual role Spanish interpreters. Currently, there are 4 rural Arizona sites (including hospitals on Native American reservations) and international rotations in Guatemala, Costa Rica, Mexico, Nepal, Kenya, and Uganda.

Going Forward: This unique GRBH curriculum component has had significant impact in recruitment and desire to practice in rural EDs. Challenges include obtaining sustainable funding for resident rotation/presentation expenses and protected faculty time for program refinement and collaboration development. Future goals include increasing dual-role Spanish interpreters, creating evaluation metrics for global health competencies, and developing collaborative proposals for fundable stakeholder-driven education, quality improvement, and research projects in Arizona and internationally.

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Collaborative development of an international training program in surgery, pathology, anatomy and medical education: exploration of the value in exchange experiences between Haitian, Rwandan and Canadian medical students

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Background: As healthcare delivery requires providers to cross international barriers and collaborate with other countries, there is a recent trend towards international training approaches of future health practitioners. We organized an international training program at McGill University from June 29– July 17th 2015. The aim of the project was to explore the value of an international exchange program for medical students in surgery, pathology, anatomy, and medical education.

Structure: The three-week long international training program involved students from Rwanda(N=3), Haiti (N=2), and Canada(N=2). The students spanned from first year to sixth year of their medical training. The program consisted of five key components; Anatomy Dissection, Research Methods with students participating in small group-learning sessions that introduced the research method, Clinical Simulation activities to practice suturing, orthopaedic casting, and Foley catheter insertion. Clinical Shadowing of pathologists and trauma surgeons, and Structured Teaching Sessions to ensure the effective transfer of knowledge back to their communities. To evaluate the international exchange program a survey was administered to students using a mixed methods approach (qualitative and quantitative).

Outcome/Evaluation: Common motivations for pursuing the international exchange included personal and professional growth, travel, and establishing relationships. The outcomes of the exchange included improved career development, a sense of responsibility towards one’s own community, development of teaching skills, and an increased cultural awareness and sensitivity. All students participating in the exchange agreed that the anatomy dissection component improved their knowledge of anatomy and made them more comfortable teaching the material. Furthermore, all the students agreed that the clinical simulation activities and clinical shadowing experiences allowed for them to integrate the different disciplines. All students felt the research component had too little time devoted to it within the program, and that the knowledge presented was beyond their educational level.

Going Forward: The development of an integrated program in surgery, pathology, and medical education provided medical students with an opportunity to learn about differences
in healthcare, medical education, and learning styles for acquiring knowledge. This exchange demonstrated that a cross cultural and neer peer teaching environment can be an effective method of medical student-centered development in global health.

**Funding:** Funding for the project was provided by the McGill Global Health Department and the office of the Dean of Medicine of the Faculty of McGill Medicine.

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*Making a global health home for faculty and students on an interprofessional campus: the example of university of maryland baltimore’s center for global education initiatives*

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**Background:** The Center for Global Education Initiatives (CGEI) at the University of Maryland Baltimore’s (UMB), formerly the Global Health Resource Center, was established in 2005 under the NIH Fogarty Center’s “Framework Program for Global Health” grant program to build interprofessional global health capacity on graduate campuses. CGEI provides UMB faculty and students from across the seven UMB professional schools (medicine, law, social work, nursing, dentistry, pharmacy and the graduate program in life sciences) with a variety of mechanisms that encourage joint scholarship, educational opportunities, and fellowship.

**Structure/Method/Design:** CGEI has been remarkably successful in creating a platform for faculty and students to interact and develop multidisciplinary research themes and training programs in global health through three ways: 1) an interprofessional experiential learning program, 2) an active global health interprofessional faculty council (GHIC) that convenes monthly to share and advance coordinated campus efforts, and 3) a global health interprofessional student council.

**Outcome:** CGEI implemented a pilot interprofessional program in 2010, involving one student from each school in a six-week research program in Malawi, led by faculty members of different disciplines. After four years of interprofessional educational success, the program expanded into a broader model; in 2014 and 2015, 78 students were supported in 18 different projects in 11 countries. Primarily through GHIC, faculty members are brought together from within the University as well as with international collaborators to formulate research proposals that go across disciplines and reframe solutions for global health challenges. Faculty and students return to UMB to share their experiences with their peers which continues the excitement and demand for meaningful interprofessional experiential opportunities.

CGEI has been able to effectively connect students to faculty members interested in global health across campus. Previously, students organized themselves around global health issues by schools but the groups were not engaged with one another. CGEI established a Global Student Advisory Council that brought together representatives from each school’s interest group, and they now coordinate substantive events and opportunities to encourage interprofessional fellowship.

**Going Forward:** CGEI continues to develop and evolve to support UMB faculty and students and meet the increasing demand for meaningful interprofessional global health opportunities.

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*EqualHealth’s visiting professor program: providing continuing medical education and professional development opportunities for haitian health professionals*

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**Program/Project:** EqualHealth (EQ) is a non-governmental organization that was founded in response to the lack of professional development opportunities available to Haitian health professionals and medical students. In 2011, EQ established its Visiting Professor (VP) program to bring physician-educators to Haiti to provide additional training to health professionals.

**Structure/Methods/Design:** First, our Haitian institutional partners identify priority topics and learners for each course. Then, the EQ volunteer health professionals database is searched to make an appropriate match, and finally, EQ works with the VP to coordinate a one or two-week training session on the topic of interest. For each course, all learners complete a pre- and post-test knowledge assessment, and all learners, VPs, and institutional management provide qualitative feedback. VP courses at medical institutions consist of classroom teaching and hands-on clinical training, and those at universities are classroom-based.

**Outcome/Evaluation:** To date, EQ has coordinated 59 courses and provided training to 2,338 Haitian health professionals. Results from learner pre-post tests indicate a positive change in knowledge base. Topics addressed include cardiology, colposcopy, electronic fetal monitoring (EFM), emergency medicine, first aid, health behavior, Intra Uterine Device (IUD) training, laparoscopy, neurology, radiology, research methods, social medicine, trauma, and ultrasound. This past year, we have supported longitudinal trainings in EFM, laparoscopy, and research methods, and have integrated the reinforcement of previously taught skills into subsequent trainings. The strong relationships between the VPs and Haitian learners have allowed EQ to continue the educational exchange between visits, expand key women’s health services offered at our partner sites, and collaborate on several abstracts that have been presented at international conferences.

**Going Forward:** Challenges include responding to shifting learning needs and VP recruitment. EQ is addressing this through expanded recruitment efforts, and has already identified VPs to provide courses on adolescent medicine, Advanced Cardiovascular Life Support, diabetes, EFM, and epidemiology during the coming year.

**Funding:** EQ is primarily comprised of volunteers. VPs cover their own travel expenses and pay a $300 fee to defray program costs. Funding to support the EQ staff members comes from contributions from individual private donations, family foundations, and public charities.

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