

63%), site-based mentors (n = 62; 66%), FICRS-F trainees at training site (n = 42; 45%), FICRS-F trainee alumni who were no longer stationed at the same site at time of training (n = 23; 24%), and other FICRS-F trainees/alumni stationed elsewhere (n = 30; 32%). The FICRS-F orientation and training experience encouraged trainees to interact with nascent and experienced health professionals. Although we had no control group, our findings suggest that the FICRS-F experience played an instrumental role in training and retaining researchers for global health.

### Evaluating the outcomes of a surgical postgraduate training program in Guyana

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**Background:** Training competent health professionals is crucial to strengthening health systems and improving a country's health outcomes. In the developing world, the unmet burden of surgical disease exists largely because of inadequate training and retention of health workers.

Like many developing countries, Guyana faces a severe shortage of surgeons, worsened by high rates of emigrating medical professionals.

In 2006, a locally based postgraduate diploma in surgery program was established by the Georgetown Public Hospital Corporation Institute for Health Science Education and the University of Guyana to address the deficit of surgeons in the Guyanese health workforce. Initial funding was obtained from the Canadian Cooperation Fund through a partnership with the Canadian Association of General Surgeons (CAGS). Additional program support has come from McMaster University Surgical Associates and the Canadian Network for International Surgery. Between 2008 and 2012, 14 surgeons graduated from the program.

**Structure/Method/Design:** The 2.5-year course involves clinical rotations and structured tutorial modules conducted by Guyanese and visiting Canadian surgical faculty members. The training prepares surgeons to meet the general surgery needs in the secondary regional and district hospitals of Guyana.

Bonds and incentives are implemented to retain graduates of the program in Guyana. Academic appointments at the University of Guyana are provided for recent graduates. A Young Professional Housing Scheme provides housing lots and houses for graduates of the postgraduate training program. Following their training, residents have a 1-year contractual agreement to the Ministry of Health.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** The program has benefited from a long-standing partnership between Guyanese and Canadian surgeons. The program is now locally governed and sustained by a Surgical Postgraduate Education Committee, which includes leaders from the UG medical school, hospitals, surgical faculty, Guyana Medical Council and Guyana Medical Association. Surgical registrars who are graduates of the program have been trained as course instructors, and take increasing responsibility for running the program.

**Summary/Conclusion:** Overall, the program has increased the capacity for service within the surgery department. The program has played a key role reducing the number of emigrating medical professionals. Of the 14 graduates from the program, 11 remain in Guyana. Further analysis is underway to determine the program's impact on surgical disease burden and retention of graduates. Research aimed at understanding the intention of trainees to remain in Guyana can guide changes to current practices.

### Innovation in global nursing education: A long-term community-focused collaboration between university students in Seattle and Nicaragua

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**Background:** This innovative program aims to create a long-term partnership between nursing programs at Seattle University (SU) and the Polytechnic University of Nicaragua (UPOLI) that provides a setting for students to learn and apply community health nursing concepts in concert with a small suburban community in southwestern Nicaragua. The students collaborate to support the community in creating the future it envisions while learning skills in data collection, management, and analysis; planning, implementation, and evaluation of research; dissemination of information; and ethical conduct of research. Development of intercultural competency is embedded in the community health partnership via the US and Nicaraguan students' engagement with each other and their collaborative work with the community.

**Structure/Method/Design:** The guiding project structure is the SEED-SCALE model, in which communities, local government, and outside experts form three-way partnerships to advance changes the community envisions for its future. In this model, the SU-UPOLI partners are outside experts who perform the functions of facilitating the community vision process, bridging between the community and local government, and generating evidence for action. The main means of generating evidence is an annual small-scale health and demographic survey that tracks demographic trends, measures the prevalence of conditions of concern to the community, and informs advocacy for and planning and evaluation of health programs.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** The primary partnership is between Seattle University and the Polytechnic University of Nicaragua—Rivas Campus (UPOLI-Rivas); these partners work together with a suburban community in southwestern Nicaragua, its local government, and the public health agency. **Summary/Conclusion:** This past year, the program saw the successful establishment of a university-to-university partnership, the agreement of the local government to support the partners' activities, and the initiation of community involvement. Over a period of 4 weeks in 2013, 4 faculty members and 26 students worked on various phases of the project, hosting an initial meeting with the community, completing human subjects research ethics training, designing and administering round 1 of the health and demographic survey, mapping the community using GPS, and hosting a meeting to report the results to the community and discuss next steps. Challenges encountered include the short-term presence of the SU partners in Nicaragua, the difficulty of creating a true community-owned project involving the community at every stage and sustaining a year-round partnership given academic constraints, serving as an effective bridge between the local government and the community, and integrating technology into the project. Round 2 is planned for 2014.

### Pathway to professionalization: A competency-based evaluation of humanitarian aid workforce personnel during a humanitarian crisis simulation exercise

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**Background:** Disaster simulation exercises and drills have been introduced to training programs in many different ways in order to

test the preparation of responders for a number of scenarios. Preparation is considered a cornerstone as well as an effective tool to plan for and mitigate the effects of disasters. For those planning on working in humanitarian crises, it is an ideal method to evaluate a participant's competence prior to deployment into a real humanitarian setting. Additionally, simulation provides a safe way to introduce and practice competencies in a setting that does no harm and will be instructively added and beneficial to the participant and their employer. Long recognized in the developed world, simulations and drills are increasingly recognized as essential to response in the developing world.

**Structure/Method/Design:** The primary objective was to evaluate the workforce personnel during a humanitarian crisis simulation and provide real-time feedback to the World Health Organization to help determine whether or not participants were immediately deployable in crisis response, or would need additional training in competency specific areas. Secondary objectives were to create and test the applicability of an evaluation tool that would be competency based, and incorporate within it the knowledge skills and behaviors required for crisis response.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** The evaluation forms for each participant reflected different skills and scenarios and the composite of all evaluations reflect each participant's core competencies. Each participant received an average score for each competency, and the standardized format allowed for comparison between individuals. Each person had a "roadmap" of areas to work on, which facilitators used to guide their recommendations about best next steps. This novel tool also allowed WHO leadership to assess select participants' suitability for deployment with an evidence-based approach.

**Summary/Conclusion:** This tool will help to determine the core competency of humanitarian aid personnel. With this tool, one can teach and evaluate competencies and help to close the gap between the workforce presently available and that with the necessary competencies to do the job. This is a critical accountability step in the pathway to the professionalization of humanitarian workers and will create a workforce of providers who not only have discipline-specific knowledge but also the operational skills and attitudes necessary in crises situations.

### Building effective global health education and training at local levels

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**Background:** Scientists have an increasing responsibility to share research findings. Yet, burgeoning amounts of information, and disparate information-sharing and retrieval systems challenge scientists to find the best venue and means to communicate their results to those who will receive the most value. The need for such targeted communication and information sharing is vital to the success of education and training necessary to mitigate the impact of emerging infections. As these diseases do not recognize borders, effective education and training can be difficult across governments, industry, and nongovernmental and academic institutions; and yet vital to disease intervention from the global to the local level. This presentation provides guidance on communicating research findings and mitigation strategies to educate and train communities to combat the threat of emerging infections.

**Structure/Method/Design:** Experience researching and mitigating emerging vector-borne and other disease threats across multiple,

international rural settings provide case studies and detailed examples for this presentation. Specific operations against emerging infections begin with understanding their context and situation, the pressures facing those responsible for intervention, and the expectations of the public, who are the customers of the intervention efforts. Assembled multidisciplinary teams include scientists, decision makers, and customers. Formats to share information and educate include forums, lectures, hands-on activities, multimedia, press releases, and small- or large-group projects. Each venue has specific tangible products to provide a bridge targeted for future cooperation and customer acceptance. Basic concepts of "who, what, when, where, why, and how" educate all parties to the function of the system responsible for intervention, and the process by which scientists produce results.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Expected outcome is a targeted sharing of research findings to produce sustainable collaboration and effective intervention from global to local levels. Understanding specific problems and concerns facing decision makers and consumers at all levels provides the opportunity for scientists to meet the challenge of effective communication. Properly communicated science can, and has, benefited thousands in education and training programs to combat emerging disease threats.

**Summary/Conclusion:** The future of successful emerging disease prevention and control depends on successful and sustainable educational and scientific discussions involving scientists, decision makers, and the public at all levels. A targeted information sharing approach educates all parties to the dynamic structure of the disease, the function of the system responsible for intervention, and the process by which scientists define and research the problem to meet the public's need.

### Establishing a program of global initiatives for nursing education

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**Background:** In this global community with great disparities in access to quality health care, distribution of health workforce, and burden of disease, schools of nursing are increasingly developing initiatives and networks across national boundaries to address these inequities.

**Structure/Method/Design:** This presentation describes the process undertaken at a school of nursing to determine its global health priorities, within the context of health care as a human right and unacceptable inequalities in population health, and develop a program of global initiatives for nursing education to address these issues. A series of meetings were held to determine faculty global activities, with input from nursing educators on several continents, and gauge interest in designing a 5-year strategic plan for the program. A volunteer Strategic Planning Workgroup was convened to formalize a mission, vision, and strategic plan for the program that were presented to, refined, and vetted by an advisory board and the faculty at large. A model depicting priority areas of focus was developed based on identification of global health needs and gaps that could be filled by nursing education and research as well as expertise of faculty members. The strategic plan is currently being implemented with collaborations being developed in two global regions.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** Based on this strategic planning process, an Office of Global Initiatives was developed and expanded with a 3-year plan for collaboration in two global regions (<http://www.cumc.columbia.edu/nursing/global/index.html>).