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Program/Project Purpose: In preparation for regional cancer screening programs in Liberia, South Africa and Grenada a program to educate local nursing staff in performing gynecologic examinations, including speculum exams, collecting smears, performing visual inspection with acetic acid and cryotherapy procedures training was implemented in each country.

Structure/Method/Design: Educational Intervention consisting of didactic curriculum training, program manual, training tools utilizing simulation models and one-on-one supervision. Pretest followed by a workshop and post-test to assess impact were performed for all 3 groups of nurses.

All trainees were supervised in performing 50 VIAs and 10 cryotherapy procedures before they screened independently.

Six-month interventions at all three sites were used to assess quality, and reinforce training.

Outcome & Evaluation: In South Africa 5 nurses were trained. Post test assessment showed increase in knowledge regarding HPV, its association with HIV, prevention and treatment strategies. Five trained nurses screened 596 HIV positive/at risk patients with VIAs over one year. Clinical assessment showed improved skills in speculum examination and cryotherapy treatment procedures.

In Liberia 14 nurses were trained. Post test assessment showed increase in knowledge regarding HPV, prevention and treatment strategies. Fourteen trained nurses screened 978 patients over a period of 2 years and performed VIAs on all patients. Clinical assessment showed improved skills in speculum examination, visual inspection of the cervix and cryotherapy treatment.

In Grenada 60 nurses were trained. Post test assessment showed increase in knowledge and clinical assessment showed increase in clinical skills. 60 trained nurses screened 500 women over one year.

In South Africa and Liberia, training improved nurses' clinical skills and knowledge, improved interaction with patients and all nurses reported a sense of empowerment and ownership of the programs. In Grenada nurses reported increased clinical skills and ownership; training resulted in a change in country wide policy that allowed nurses to perform procedures independently. The program in Grenada is still ongoing.

Going Forward: Educational programs in cervical cancer screening should be tailored to meet the gaps in knowledge of trainees and available resources. Supervision and interval reinforcement of training is essential to the sustainability of these programs.

Source of Funding: The Women Global Cancer Initiative www.thewomen.org.

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Developing a Comprehensive Cancer Education Program to Increase Clinical And Research Capacity in Mozambique

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Program/Project Purpose: In 2011, cancer surpassed coronary heart disease and stroke as the leading cause of death worldwide. 14.1 million new cancer cases and 8.2 million cancer-related deaths

occur annually worldwide. 57% of new cases and 65% of cancer deaths occur in Low and Middle Income Countries (LMICs), and some cancers occur primarily in LMICs. For example, 90% of cervical cancer deaths occur in LMICs and cervical cancer is the most frequent cause of cancer mortality among women in Sub-Saharan Africa. Currently there are not enough medical specialists to provide prevention, screening and treatment services. For example, there are 245 physicians per 100,000 people in the US and 4 physicians per 100,000 people in Mozambique.

The aim of this program is to increase clinical capacity and to improve cancer prevention and treatment services, ultimately reducing cancer mortality, and to build on these partnerships to develop joint research projects.

Structure/Method/Design: Our cancer education program has three complementary components: 1) Strong partnerships with four academic institutions in Brazil, the Ministry of Health of Mozambique, Maputo Central Hospital and the General Hospital of Mavalane to develop educational programs and collaborative research; 2) Use of video-technology to deliver a regular telementoring program; and 3) In country, hands-on training twice a year. Collaboration with Brazilian institutions facilitates communication, and provides clinical expertise and opportunities for additional partnerships through provider exchanges. The telementoring component uses the Project ECHO® model, a program developed at the University of New Mexico, to engage providers in a horizontal manner, through videoconferencing and regular case-based discussions.

Outcome & Evaluation: To date 113 training hours have been provided through videoconferences to an average of 11 participants in breast, cervical and head & neck cancers. Two in-country workshops have provided an average of 1,000 training hours to about 100 providers in diagnosis and surgical management of breast cancer, pathology, colposcopy, LEEP (Loop Electrosurgical Excision Procedure) and surgical management of cervical cancer, medical oncology, surgical management of head and neck cancer, oncology nursing, palliative care support and radiation physics.

Going Forward: A funded joint research project is underway to demonstrate the feasibility of using HPV DNA testing for cervical cancer screening.

Source of Funding: Partial support: MD Anderson Cancer Center Sister Institutions Anadarko Petroleum.

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Exchange the World: Clinical and Research Exchanges as a Means to Promote Understanding of Other Health Care Systems in Medical Students

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Program/Project Purpose: The Quebec chapter of the International Federation of Medical Students' Associations (IFMSA-Quebec) organizes annually over 130 nonprofit, student-run clinical and research exchanges in 39 countries, which are recognized as credited courses in 3 of 4 medical faculties. Its objective is to

complement students' medical education by offering the opportunity to experience a different medical or research system where they will face challenges in communication, professionalism and scholarship (CanMEDS Framework). The purpose is to allow future physicians to gain academic knowledge and cultural sensibility in order to better serve a multicultural population.

Structure/Method/Design: 136 students from 4 Quebec medical schools were selected from 332 applicants through a match system between the 39 available countries and the choices of the applicants. Local officers in each university assisted the selected applicants in preparing the required documents. A pan-provincial mandatory pre-departure training is held to address issues that students can face on an exchange including culture shock, security and ethics. During the exchange, every student is required to complete a logbook, which tracks their academic progress and is required in order to obtain an official certificate. Upon return, surveys gathered students' ratings and comments on their exchange upon many criteria (on a scale of 0 to 3): the welcome, lodging, internship, supervision and social program.

Outcome & Evaluation: Surveys indicate that students were satisfied to very satisfied with their experience in all aspects mentioned previously (scores 2 and 3, ranging from 72.5% to 91.9% for each criteria). Individual responses were used to improve the program's structure and to give feedback to the countries if the score was low (0 or 1). Comments indicate that participants self-reported knowledge gained in both medical or research skills and cultural understanding. This suggests the programs' positive impact on participants' academic and personal progress. All participants have received their certificate.

Going Forward: Feedback from participants support the main objective to foster medical students' competences in communication, professionalism and scholarship in a novel cultural setting. Challenges remain in increasing the programs' visibility and accessibility to all medical students in Quebec, maximizing exchanges with countries with positive feedback and establishing the internship as a credited course in the remaining medical faculty.

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Impact of an Evidence-Based Pediatric Electronic Knowledge System on Peruvian Physicians' Perceptions of Care Quality, Learning, Teaching, and Self-Efficacy

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Program/Project Purpose: Lack of access to current medical information is a limiting factor in practicing evidence-based medicine (EBM). While many hospitals and most physicians have computers and smart phones, integration of these devices into everyday medical practice is poorly-developed in most resource-limited environments. The objective of this study was to evaluate how access to an EBM knowledge system, on the web and as

a mobile application (app), impacts Peruvian physicians' perception of care quality, learning, teaching and self-efficacy.

Structure/Method/Design: KidsCareEverywhere (KCE) is a California charity that donates medical software, PEMSsoft (Pediatric Emergency Medicine Software), to resource-limited health systems. PEMSsoft is a vast, multi-media library of EBM written in English and widely used commercially in America and Australia. The mobile app requires the web only for initial download and updates, but not for ongoing use. EBSCO Health, Ipswich, MA donates PEMSsoft to KCE. Universidad Peruana Cayetano Heredia in Lima, houses the Peruvian school of public health and medical school.

KCE, in collaboration with Universidad Peruana Cayetano Heredia, visited two hospitals in Lima in July, 2016. 252 primarily Spanish-speaking physicians underwent a 75 minute PEMSsoft training, then were surveyed three months later.

Outcome & Evaluation: The subjects were diverse in age, training levels, and medical specialties, and almost all regarded themselves comfortable with technology and written English. Before PEMSsoft, subjects queried written references about clinical questions as frequently as web-based software or mobile apps.

On follow-up, 54 subjects reported that they used the mobile app more than any other written or software reference, with few barriers. 70% reported using the web-based version weekly; 89% used the app weekly inside the hospital, 87% outside the hospital. 91% thought PEMSsoft was easy to use; 96% thought it improved patient care. 74% said it helped them learn medicine more easily and 67% said it helped them teach medicine more effectively. 70% considered themselves more confident with PEMSsoft.

Going Forward: Providing an EBM electronic knowledge system to physicians in Lima, Peru resulted in substantial changes in patterns of access to information, perceptions of care quality, and attitudes toward learning, teaching and self-efficacy. Electronic programs, especially mobile apps, may be powerful tools to dramatically improve information access, knowledge dissemination, and physician attitudes toward practice.

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Health Needs of Refugees: Port of Arrival versus Permanent Camp Settings

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Background: The world's refugee population currently stands at over 19 million, the large majority of whom reside in developing countries. The quality and accessibility of healthcare for refugee populations varies according to the geographic setting, availability of resources, and proper training of healthcare providers. This paper uniquely compares and contrasts two important settings for healthcare provision for refugees: the permanent "camp" settings of Za'atari, Jordan, versus the transitory location of Lampedusa, Italy—a major port of arrival for refugees. More specifically, we analyze governance and organizational structures, identify specific health needs, and propose gaps in health care that must be addressed.