

Effect of global health and underserved populations track on graduates' career choices following internal medicine residency

A.J. Kennedy¹, Z.G. Jacobs¹, T. Anderson¹, T.D. Bui^{1,2}, S.M. Zimmer^{1,3}; ¹Department of Medicine, University of Pittsburgh, Pittsburgh, PA, ²Global Health and Underserved Populations Track, University of Pittsburgh Medical Center Internal Medicine Residency Training Program, ³University of Pittsburgh Medical Center Internal Medicine Residency Training Program

Program/Project Purpose: Although an increasing number of residency programs have instituted tracks or pathways dedicated to training physicians in global health and international service, the impact of these changes on career choice and care of underserved populations remains unknown. The University of Pittsburgh Medical Center (UPMC) Internal Medicine Residency Program developed a separate track for residents interested in global health and underserved populations in 2007. This track exposes residents to six months of global and underserved healthcare—including up to four months of clinical work overseas, one month with the Indian Health Service, and a one month preparatory seminar—all over the course of a standard 3-year residency. The aim of this study is to assess how participation in this track has affected graduates' career choices as compared to categorical residents in the same program.

Structure/Method/Design: Occupational data was obtained from the UPMC Office of Graduate Medical Education on all categorical and global health track residents graduating from 2010–2015. Data obtained included fellowship specialty, as well as whether the graduate pursued a career in hospitalist, primary care, and/or underserved settings. Additional data were collected via online survey regarding the demographics of graduates' patient populations, community service, volunteerism and advocacy activity.

Outcome & Evaluation: A total of 188 graduates were included, 165 from the categorical program and 23 from the global health track. During the first 1–2 years after finishing residency, as compared to categorical residents, graduates of the global health track were more likely to pursue careers in primary care (44% vs 20%), and to work with underserved populations (52% vs 4%); they were less likely to specialize (44% vs 55%), become hospitalists (26% vs 34%), or work for the Veterans Affairs health system (4.3% vs 9.7%).

Going Forward: Immediately following graduation, internal medicine residents who completed 6 months of global health and underserved training were more likely than their peers to pursue careers in primary care and to work with underserved populations. As career paths often change in the initial years following residency, going forward, long-term outcomes of global health track trainees will need to be evaluated.

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Feasibility of using a remote app-based curriculum with short live training course to train mid-level providers in Haiti

Ayesha Khan, K. Masek, A. Ditullio; Stanford University School of Medicine

Background: This study attempts to address the global health staff shortage by assessing feasibility of a combined, eight-month, remote application (app)-based curriculum and two-week live bedside teaching program, in training lay-persons in North-East Haiti to diagnose and treat common acute care diseases, and stabilize and triage to higher levels of care when needed.

Methods: This study was a prospective, pre-test, post-test evaluation of the app portion of the program and oral, critical-action evaluation of the live portion, given to five trainees. Trainees were chosen from 30 applicants based on successful completion of a secondary-school level math and reading survey and the trainee's willingness to invest time needed for training. Two versions of the app test of 172 multiple-choice questions were created, with two questions for each learning objective. Questions were expert-reviewed and validated by four Stanford emergency medicine physicians. Trainees were divided into two groups with Group 1 taking "version A" as a pretest, "version B" questions as in-module quizzes and "version A" as a final post-test. Group 2 did the opposite. The questions were locked and could not be accessed for review once administered. Paired t-test for statistical analysis was used to determine significance in the pre-test, post-test evaluation. Both groups underwent oral case based tests with *a priori* critical actions to assess the synchronous training.

Findings: Trainees scored a mean of 34.8% (SD 12.4) on the pre-test and mean of 78% (SD 6.5) in the post-test with a *p* value of 0.004. The median score was 81% (IQR 11.5). Only one student did not achieve the passing score of 70% and was not allowed to progress to the oral case tests. The remaining four students achieved a 100% on oral case testing.

Interpretation: Despite a small sample size, magnitude of difference in pre-test and post-test results of this study shows significance and potential feasibility of using remote, asynchronous, app-based training with limited live training as a way to task shift and train providers in acute care diseases.

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Contributions to health workforce in Cambodia: a self-administered survey among the graduates of University of Health Sciences who graduated between 1999 and 2012

K. Khim¹, Goldman Laura², Cin Sovannara¹, Saphonn Vonthanak¹; ¹University of Health Sciences, Phnom Penh, Cambodia, ²Global Health through Education, Training and Service program, Boston University, USA

Background: Healthcare professionals in Cambodia had been decimated following two decades of wars. University of Health Sciences (UHS) is the oldest and only public health-related university in Cambodia which has trained most of the country's health care professionals, including the current health policy makers and decision makers. Between 1999 and 2012, over 5000 students in medicine, dentistry, pharmacy, nursing and midwifery graduated from UHS.

Aim: UHS conducted the first ever survey of alumni of UHS with an aim to gain an understanding about the graduates in relation to

their enrollment decisions, employment and their perceptions about their training programs and quality.

Methods: We randomly selected 842 graduates in the five programs between 1999 and 2012, located and provided them with a self-administered questionnaire. Data were collected between April and September 2015. A total of 428 questionnaires were completed and returned. Locating the graduates and involving them in the survey was challenging. The study was approved by the Ethics Committee in Cambodia and Boston University's Internal Review Board.

Findings: 56% of the respondents were female, 44% male, mean age was 32 years. 77% (n = 328) said would have chosen to study a health-related program if given another chance to decide. Primary reasons for the choice were easy to find a job (23%, n = 98), like the profession (71%, n = 303) and to satisfy parents (29%, n = 126). Over 90% reported had a health profession job within one year after study completion, and over 95% reported currently have a job in the health sector. Almost half of the respondents reported having the current job in the public health sector. The other half has a health-related job in the private health sector, including a quarter who reported owning a health-related business or private practices. An average rating of 20 scaled items on a four-point scale was 2.43.

Interpretation: UHS graduates have a strong job prospect. Several areas of the training programs need improvement, including updated training materials and textbooks, online and internet services, and quality of instructions.

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Healthcare workers' self-reported knowledge, attitudes, and practice implications regarding mental health care in rural Uganda

J.A. Koretski¹, K.D. Dieckhaus²; ¹University of Connecticut School of Medicine, Farmington, CT, USA, ²UConn Health, Farmington, CT, USA

Background: Uganda is challenged by limited resources for managing the increasing recognition of mental health disorders. Mentally ill patients are frequently provided with inappropriate and incorrect treatments. Facilitation of early detection and intervention for mental health problems may be achieved through development of training programs for generalist healthcare workers (HCWs). The current study aimed to assess knowledge, attitudes, and implications for practice regarding mental health care among HCWs at the primary care level in a rural setting in Uganda.

Methods: Structured interviews with 65 HCWs were conducted at six healthcare facilities in Kisoro district. The IRB-approved survey instrument was adapted from previously validated questionnaires. Independent variables included the participants' background and self-reported knowledge on diagnosis/treatment of mental illness. Primary outcome variables included perceived self-competency of mental health clinical management, therapeutic commitment, and stigma against mentally ill patients. Responses were scored on a 7-point Likert-type rating scale.

Findings: Higher degrees of self-reported knowledge were associated with higher levels of perceived self-competency (p<0.01) and higher therapeutic commitment (p<0.01). HCWs who had received some form of mental health training were found to have higher levels of perceived self-competency than HCWs with no such training (p<0.05). HCWs with higher levels of training had lower levels of stigma than nurses (p<0.05). The length of post-secondary education was also associated with lower levels of stigma (p<0.05). HCWs at the local private hospital with no mental health specialist on staff self-reported a lower degree of knowledge on management of mental illness than did their colleagues in the public sector with access to a psychiatric referral system (p<0.05), despite having, on average, higher levels of post-secondary education (p<0.01).

Interpretation: Educational programs for HCWs should focus on stigma reduction and improvement of knowledge on diagnosis and treatment of mental illness. Special focus should be on nurses, who are often the primary provider. Having access to a mental health specialist is shown to be associated with higher self-reported knowledge on management of mental illness, and thus higher perceived self-competency and therapeutic commitment — elements that lead to more effective practices.

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framework for interprofessional education (IPE) to advance global health learning

Abstract Opted Out of Publication

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A comparative look at the medical and nursing education partnership initiatives

Abstract Opted Out of Publication

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Relevance at scale: being global, feeling local

A. Nartker¹, L. Wall¹, F. Petracca², M. Hals¹, A. McGee¹, A. Downer¹; ¹Department of Global Health e-Learning Program (eDGH), Department of Global Health, University of Washington, ²International Training and Education Center for Health (I-TECH), University of Washington

Program/Project Purpose: E-learning is an inventive solution for responding to the growing need for trained health professionals in low- and middle-income countries (LMICs) because it can provide on-going education without interrupting care delivery or incurring high costs. The Department of Global Health e-Learning Program (eDGH) at the University of Washington has offered eight online courses to more than 10,000 health professionals in 60 LMICs since 2013. We have learned that effective training of a global audience from various cultural, demographic, linguistic, and geographic backgrounds requires that online content be localized. To achieve this, eDGH uses a site-facilitator and peer group discussion model blended with online learning.