

Structure/Method/Design: The development of the textbook began with the editor recruiting an editorial board of diverse experts, who then assisted in determining textbook content and identifying pertinent clinicians as chapter authors. Leadership from the Consortium of Universities for Global Health and the former GHEC provided critical input on selecting editorial board members, chapter contributors, and textbook content. Chapter content was developed through an intense and iterative process between chapter authors and the editorial board, including several stages of drafting, reviewing, editing, and revising. We also partnered closely with illustrators from Wiley-Blackwell to produce a text rich in illustrations and photographs.

Outcomes & Evaluation: Essential Clinical Global Health includes contributions from nearly 100 global health experts, with content organized into 37 chapters and 6 sections: Introduction; Newborn and Child Health; Adolescent, Reproductive, and Maternal Health; Infectious Diseases; Non-Communicable Diseases; and Other Global Health Topics. Chapters cover the clinical diagnosis, management, and prevention of the leading causes of morbidity and mortality in low- and middle-income countries, along with special chapters on resource-limited health systems and other contextual topics, for example, “Working clinically in resource-limited settings,” “Preparing for travel and staying safe abroad,” “Neglected tropical diseases,” “Laboratory skills,” “Nursing care,” “Pharmacy,” “Global health technologies,” “Illness in returning travelers,” and “Developing a career in global health.” Each chapter features key learning objectives, evidence-based clinical guidelines, practical clinical skills, real-world experiences from trainees and clinicians in the field, and core readings. The textbook’s accompanying electronic supplement contains additional resources, videos, and self-assessment questions and answers as well as an electronic version of the complete textbook – valuable for reference abroad on a laptop, tablet, or mobile device.

Going Forward: As this collaborative textbook is published the beginning of 2015, our goal is to make it widely accessible to individual global health students, trainees, and clinicians, as well as to all institutions with global health programs. We welcome feedback from the global health community on how to improve future editions of Essential Clinical Global Health. We are also working with Wiley-Blackwell to develop online CME offerings based upon the textbook.

Funding: None

Abstract #: 01ETC068

Strengthening the health system capacity to monitor demographic and population health metrics through surveillance nested on existing government community health structures: A pilot from a rural area of Kenya

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Background: The community health strategy (CHS) is a response of the Kenyan government to reversal in gains for population health indicators in the 1990s. CHS’s main aim is to improve health outcomes by bridging the gap between households and the health system. The key innovation of CHS is the development of capacity to monitor the population and deliver primary health services at the community level by well-trained community health workers (CHWs). We aimed to evaluate the feasibility of generating reliable demographic and household level health information using CHWs in a rural area in Kenya.

Methods: We trained and supported 100 CHWs to conduct a registration, enumeration and household health information data

collection. They used the standard CHS household registration tool with items covering demographic, maternal and child health, and social determinants of disease aspects of the household. The data were entered into a relational database and analyzed in Stata v13 (Statacorp, College Station, Houston TX, USA). We used Whipple’s index to assess for age heaping and compared the distribution of demographic parameter with those of other surveys in the area (e.g. DHS) and an adjacent HDSS. Overall and category specific denominators were used to evaluate the collected household health information.

Findings: The population of the area was 16,005 individuals living in 2,722 households. The median (IQR) number of individuals per household was 6 (4-7). Females comprised of 51% of the population and 99% provided a date of birth. The median (IQR) age was 17 (8-32) years. There was no age heaping (Whipple’s index was 97), reflecting reasonably accurate age reporting. Children Parents/guardians of 93% of children aged

Interpretation: This project demonstrated that it is feasible to identify and register populations under the existing government CHS structures as well as generate relatively accurate demographic data which can be used as denominators in monitoring and evaluation of population health programmes. Reporting of maternal health information was poor and more training is needed to enable CHWs to collect this information.

Funding: No funding listed.

Abstract #: 01ETC069

Cultural relevancy in capacity building: Community education to address the malnutrition spectrum

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Program/Project Purpose: Addressing under-five mortality, morbidity, and associated influence of nutrition is a public health priority world-wide. The Children’s Hospital of Philadelphia (CHOP) has a long-standing partnership with a local clinic in Consuelo, Dominican Republic. Their Niños Primeros en Salud (NPS) programming, engages local medical staff, residents, and health promoters (HPs) as a medical home for the community’s children. In 2009, they initiated a nutrition supplementation program, for undernourished children; however, children did not significantly or consistently improve. Through efforts of CHOP and local NPS staff, a needs/assets assessment was conducted and a nutrition curriculum designed. Globally and locally a “Nutrition Transition” is occurring where all forms of malnutrition exist, including traditional “undernutrition”, micronutrient deficiencies, and the risk for obesity and noncommunicable diseases. Contributors to these forms include food insecurity, access to nutrient-poor processed foods, and misunderstandings around nutrition’s importance to health. Subsequently, the curriculum focused on how to make healthy choices in nutrition, physical activity, and hygiene with available resources. The training and curriculum implemented resulted in improved clinical data. In 2014, Vanderbilt Peabody College performed an external evaluation of the curriculum.

Structure/Method/Design: To evaluate the effectiveness and use of the nutrition curriculum, an assessment was conducted via individual interviews of the clinic staff and HPs, and a collective HP focus group. These were conducted in Spanish and the audiotape then transcribed into English for analysis. This existing sustainable structure of staff and HPs will now be used in the program revision based on findings.

Outcomes & Evaluation: Through this nutrition curriculum evaluation, multiple themes emerged: An increased capacity among HPs to deliver curriculum content, personally learning and applying that knowledge towards nutrition related recommendations. The HPs were not using the nutrition booklet in community homes as designed due to concerns regarding being received as too formal or pretentious. The HPs recurrently described their ability to personalize the education through a process consisting of: an environmental scan, diet assessment, and educational and behavioral recommendations.

Going Forward: The findings illuminated barriers and opportunities related to community health education using the health promoter model, such as tensions for HPs across their multiple roles, specifically as a professional and neighbor. These tensions have implications for training, program implementation, and program sustainability. Steps forward include: Sharing results with clinic staff and HPs to engage their expertise in topic priority setting and delivery format. Augmenting our support and training of the HPs and clinic staff to address these tensions and preferences through further skill building in educational techniques and motivational interviewing. Design subsequent assessment of the program revisions and interviews with another key stakeholder: the community members/recipients.

Funding: Funding for this project came from Vanderbilt Peabody College and Vanderbilt Medical Center's Pediatrics Department.

Abstract #: 01ETC070

Giving back: A mixed methods observational study of the contributions of US-based Nigerian physicians to their home country

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Background: There is increased interest in the capacity of US immigrants to spur economic growth in their homelands via entrepreneurship and remittances. However, there has been little research examining how immigrant physicians may support health systems and what factors facilitate or raise barriers to increased support.

Methods: This study used an observational design with survey and interview components. A purposive sample was drawn from attendees of a 2011 conference for US Based Nigerian physicians; respondents who were not US residents, physicians, and of Nigerian birth or parentage were excluded from further analysis. Respondents were randomly selected to complete a follow-up interview, with separate scripts for those having made past financial contributions or medical service trips to support Nigerian healthcare versus those who had done neither. Survey results were analyzed using Fischer exact tests and interviews were coded in pairs using grounded theory. Study protocol was approved by IRB at the University of Pittsburgh.

Findings: Seventy-five (48%) of 156 individuals who attended the conference met inclusion criteria and completed surveys, and 13 interviews were completed (with 7 "contributors" and 6 "noncontributors"). In surveys, 65% percent of respondents indicated a donation to an agency providing healthcare in Nigeria the previous year, 57% went on medical service trips in the past 10 years and 45% indicated it was "very likely" or "likely" that they would return to Nigeria to practice medicine. Frequency of encounters with Nigerian professionals was significantly associated with likelihood of having made a donation ($p=0.024$) or medical service trip ($p=0.001$), and perceived likelihood of permanent return was associated

with level of perceived impact of practice in Nigeria ($p=.002$). In interviews, respondents tended to favor gifts in kind, financial gifts, and medical service as modes of contribution, with medical education facilities as the most popular recipient. Personal connections, often forged in medical school, tended to facilitate contributions, while lack of cooperation from government tended to hamper it. Individuals desiring to return permanently focused on potential impact and worried about health system under-preparedness; those not desiring permanent return reported concerns about safety, financial security and health systems.

Interpretation: An important portion of Nigerian physicians are engaged in home country health care utilizing a spectrum of contributory levels and mechanisms. Relationships with other Nigerians likely have a positive effect on contributions while health system issues largely prohibit contributions and return. As such, there is reason to believe that strengthening accountability mechanisms and outreach from health systems can further increase support. Our study is limited by its restriction to a single organization but nonetheless represents an engaged subset of physicians upon whom interventions will have great impact.

Funding: University of Pittsburgh Institute of Clinical Research Education; University of Pittsburgh SOM Dean's Summer Research Project.

Abstract #: 01ETC071

Improving occupational and environmental health in Mongolia through a multidisciplinary public-private international capacity building partnership

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Program/Project Purpose: Mongolia is currently experiencing rapid social and economic changes that are further intensified by the recent mining boom in the country, and Environmental and Occupational Health (EOH) is only now emerging as a new field within the public health sector in Mongolia. Although the government is committed to promoting sustainable green development by passing a law to require both environmental and health impact assessment for all projects implemented in the country, its implementation and the future of EOH field hinges upon the development of human capacity as we are in a dire need for EOH professionals with modern knowledge and skills to deal with the current challenges faced in Mongolia.

Structure/Method/Design: We established the first department of Environmental and Occupational Health in the country under the School of Public Health of MNUMS to meet the urgent need to provide solutions to environmental and occupational health issues in Mongolia. Mission of our department is to prepare qualified professionals with knowledge and skills to conduct rigorous fact-based research in environmental and occupational health, identify and implement effective interventions, advance and disseminate knowledge, and to ultimately strengthen human capacity in the EOH field in Mongolia. Our department is working with various organizations including government agencies, academic institutions, and NGOs around the world on projects such as collaborative research studies on environmental exposure assessment and its health impacts, graduate training programs with research component, and advanced in-country seminars and training workshops, and benefits from financial and technical assistance from both national and international organizations such as Fogarty International Center and University of Southern California and private entities.