

### Nutritional status of school children in plantation sector, Sri Lanka

G.L. Galgamuwa<sup>1</sup>, W.M. Iddawela<sup>1</sup>, S.D. Dharmarathne<sup>2</sup>; <sup>1</sup>Department of Parasitology, Faculty of Medicine, University of Peradeniya, Sri Lanka, <sup>2</sup>Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Sri Lanka & Institute for Health Metrics and Evaluation, University of Washington, USA

**Background:** Child malnutrition is a major public health and development concern in most of the poor communities leading to high morbidity and mortality. Objective of this Study was to assess the nutritional status of schoolchildren residing in a plantation area in Kandy, Sri Lanka.

**Method:** A cross sectional study was performed involving children aged between 6 to 12 years in Hanthana tea plantation area, Kandy. Anthropometric parameters of height and weight and were collected by standard procedures to assess Height-for-age (HAZ) BMI-for-age (BAZ) and weight-for-age (WAZ). Anthroplus 1.0.4, Epiinfo 3.5.1, and SPSS version 17softwares used for the analysis of data.

**Findings:** 283 children with ( $8.9 \pm 1.4$ SD) years were assessed. Mean HAZ, WAZ and BAZ was  $-1.35 \pm 0.85$ ,  $-1.94 \pm 0.76$ ,  $-1.84 \pm 0.97$  respectively. Majority of them were in normal nutritional conditions. 2.5% were over height ( $2.18 \pm 0.10$ ,  $> 2$ SD HAZ) while 1.4% overweight ( $2.09 \pm 0.10$ ,  $> 2$ SD WAZ) and 2.1% obesity ( $2.23 \pm 0.16$ ,  $> 2$ SD BAZ). 19.8% were stunted ( $-2.62 \pm 0.58$ ,  $< - 2$ SD HAZ), 25.3% underweight ( $-2.48 \pm 0.41$ ,  $< - 2$ SD WAZ) and 21.4% wasted ( $-2.82 \pm 0.60$ ,  $< - 2$ SD BAZ). The prevalence of each indicator was higher in boys than in girls and the children aged 6-8 years showed the highest prevalence of under nutrition. However, there was no significant association between nutritional status with gender and age.

**Interpretation:** Child under nutrition remains a public health concern in this community. School health education programs promoting better eating habits and physical growth are need periodically for this community.

**Funding:** None.

**Abstract #:** 1.041\_HRW

### A new workforce for a new era: characteristics of Master of Science in Global Health students

S. Galvin, A. Doobay-Persaud, C. Peterson, D. Young, R. Murphy, M. Cohen; Northwestern University, Chicago, IL, USA

**Background:** There are critical shortages of global health providers, and traditional degree programs often do not target all skills essential for global health professionals. MD, RN and MPH degree programs are time intensive and focused on clinical and research skills; global health careers are not the intent of such degrees. The Master of Science in Global Health (MSGH) is a new degree program that focuses on interprofessional competencies and targets non-traditional students, such as working adults and international students. It also allows health, engineering, business and other professionals to gain targeted skills that translate existing degrees to a global context. However, given the recent

introduction of such programs, the general characteristics of MSGH students remains unknown.

**Methods:** Cross-sectional analysis of students in enrolled in an online MSGH program at Northwestern University. Initial student surveys are routinely collected upon admission. De-identified aggregate data was analyzed from student survey responses. Publically available data from comparator degree programs was obtained. Descriptive statistics were utilized to describe the cohort, and Chi-square and Fisher exact tests performed to examine differences between student types.

**Findings:** Thirty two individuals matriculated during the first six months of the MSGH program, 78% female, median age 30, with 31% being under 25 and 16% being over 45. They identified as being 74% white, 16% Asian, and 10% black. 87% were currently employed; with 58% working in health care, 15% in government or public administration, and under 10% working in education, information technology marketing/sales, hospitality/tourism. Matriculates to Northwestern medical school over the same time frame were 41% female, median age 24 with none being over 45, 37% white, 36% Asian, 13% Hispanic, 6% black. MSGH students were more likely to be female (Chi square  $p < 0.001$ ) and over 45 (Fisher exact  $p < 0.001$ ).

**Interpretation:** On-line MSGH programs attract students who are different than other traditional degree programs. Notably, the program attracts persons already working in relevant professions who have interest in pursuing global health. This is a potential mechanism to diversify and expand the global health workforce. Further data on the career trajectories of these students will be important.

**Funding:** None.

**Abstract #:** 1.042\_HRW

### Development of a global health program for Kaiser Permanente Northern California Graduate Medical Education program

H. Garzon, B. Blumberg, T. Azevedo, E. Ramirez; Kaiser Permanente – Oakland California

**Program Purpose:** Kaiser Permanente (KP) is the largest non-for-profit pre-paid integrated health care delivery system in the United States. In Northern California, Kaiser Permanente has 21 medical centers, caring for over 3.8 million members by over 7,000 physicians. Kaiser Permanente's Northern California Graduate Medical Education supports 16 distinct residency and fellowship programs, including approximately 400 residents and fellows (of which, 250 positions are KP and eligible to apply to the KP global health program), and over 600 medical student rotations annually. The overall goals of developing and implementing a global health program included, a) provide KP residents and fellows with global health rotations to expand their cultural competency patient care skills, b) enhance KP's external outreach to underserved populations, c) provide KP physicians with teaching rotations as they precept KP residents and fellows.

**Methods:** In 2008, the Global Health Program Advisory Committee was convened and the global program mission and goals

were defined. Program development consisted of researching, review, vetting, and development, when necessary, of existing non-profit health care programs focused on care for medically underserved populations. Program development led to affiliations with 10 foundations, non-profit organizations, universities, or public hospitals in three continents.

Resident rotations are supported through the development of goals and objectives, and provision of a global health core curriculum through resources and references.

**Outcomes:** Medical students and residents continue to have a high level of interest in global health. Since the inception of the global health rotations in 2010, we have experienced a steady increase of participation, with the most recent increase from 35 rotations in 2014 to over 40 rotations expected in 2015. The KP Global Health Program has increased interested in KP GME programs, and contributed to physician retention and participation in Global Health work.

**Going Forward:** Future goals include development of additional affiliated programs, increasing participation, and conducting further research.

**Funding:** Funding for travel related expenses for residents and attending physicians is available.

**Abstract #:** 1.043\_HRW

### Implementing international standards for facility management in healthcare facilities in resource-limited settings

*C. Daskevich, B. Gumeringer, D. Nguyen, A. Gibson, T. Napier-Earle, M. Mizwa;*

**Program/Project Purpose:** All too often, in resource-limited settings (RSL), facilities are constructed without a plan or procedure for ongoing maintenance, service or upgrades. As an Academic Medical Center (AMC) with a significant investment in multiple healthcare facilities, the development of a facility management strategy became an imperative. In all, the AMC operates nine clinics, including satellite clinics, in SSA and one clinic in Eastern Europe.

**Structure/Method/Design:** Each facility was staffed with local human resources that reported back to the AMC for approval and funding of facility repairs. It was soon recognized by the global health project management team and U.S.-based facility management staff they interfaced with, that it was necessary to introduce and build local capacity in facility maintenance and management.

In order to accomplish this, an oversight committee was established at the AMC consisting of project managers familiar with the infrastructure in the RSL settings owned and managed by the hospital, U.S.-based facility management personnel and in-country facility staff. The oversight committee was first established to review requests for service and administer the facilities management budget set-aside for these locations by the AMC.

In the third year of this program, an initiative began to implement an internationally-recognized facility management curriculum

with a goal of seeking a base-line certification for the in-country facility managers – a strategy mirroring the approach used to build the local capacity of the health care workers utilizing those facilities for clinical operations.

**Outcome & Evaluation:** A broadly recognized curriculum was identified and the project management and facility management teams from the AMC utilized an annual conference of the in-country staff in SSA as a forum to disseminate the training curriculum and set the in-country staff on a track to achieve international certification in facility management. Eight individuals were identified to participate in the year-long program.

**Going Forward:** The curriculum will initially be presented in December 2015. Facility management staff from the AMC will continuously touch base with the eight trainees throughout the year with a goal of administering the certification exam in December 2016.

**Funding:** All funding for the trainings, course materials and conference costs are supported by the AMC and its affiliated non-governmental organization.

**Abstract #:** 1.044\_HRW

### The impact of international service-learning trips on medical student concerns

*Siddique Khatri<sup>1</sup>, Manpal Gill<sup>2</sup>, Guillaume Farab<sup>2</sup>, Chih Chuang<sup>1</sup>;  
<sup>1</sup>Wayne State University School of Medicine, <sup>2</sup>Wayne State University*

**Background:** Many medical schools provide students with the opportunity to attend international service learning trips (ISLTs). These trips have become increasingly prevalent. While there are numerous studies in the literature about the value of offering such trips to students, few address the concerns of students attending them. This study is a follow-up to a pilot study about the impact of ISLTs on student concerns at Wayne State University School of Medicine.

**Methods:** Surveys were administered to 47 medical students who attended ISLTs in Spring 2013. Surveys were modified based on feedback from faculty and students with prior trip experience. Surveys included quantitative and qualitative questions about demographics, personal and professional goals, trip concerns, and satisfaction. Questions regarding concerns about food, language, hospitality, disease/health epidemics, natural disasters, terrorism, travel concerns, monetary issues, cultural barriers and group dynamics were asked. Concerns and trip satisfaction were rated using a five point Likert-type scale (1 = minimally concerned; 5 = extremely concerned). All participants provided informed consent. The study was approved by the Institutional Review Board of Wayne State University.

**Findings:** All administered surveys were returned. Almost all students (46/47; 98%) were satisfied with their trip experience. The highest level of pre-trip concern was related to language and disease/health epidemics. Concerns related to both disease/health epidemics and language decreased post-trip. Students rated concerns about disease/health epidemics (Pre-trip: 2.40 vs. Post-trip: 1.00;  $P < 0.03$ ) and language (Pre-trip: 3.50 vs. Post-trip: 2.20;  $P <$