

A search was also done with regards to current policy within the various societies of family medicine in relation to planetary health.

Based on the preliminary information, a curriculum was created with the following objectives:

- Define planetary health. List the current elements of planetary health as they relate to family medicine. Determine future avenues of involvement for family physicians interested in planetary health.
- The course was rolled out to participants over a variety of venues and a webinar created for asynchronous learning.
- Surveys were done to determine participants' knowledge and/or understanding of planetary health and its relation to their current stage of medical practice.

Outcome & Evaluation: Preliminary studies show though planetary health is not a new concept in the field of public health, it is not very well known amongst family physicians. Current policies from various societies touch on various elements of planetary health, but as a whole it is not clarified as to the role of the family physician in this specialty. There is room for improvement with regards to educating family physicians on planetary health competencies and their role in its promotion.

Going Forward: Create an advanced planetary health elective/track.

Source of Funding: Departmental.

Abstract #: 1.009_PLA

Drinking Water Provision and Quality in Low-Income Peri-Urban Communities of Lusaka, Zambia

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Background: Lusaka, Zambia, is a rapidly growing city with over 2 million people. About 65% of Lusaka's population lives in unplanned, low-income, periurban communities with historically poor access to safe drinking water. Almost all of the supply for these communities comes from a vulnerable, karst aquifer system, severely impacted by human activities, especially waste disposal and sanitation. Water-borne disease is frequent, including diarrhea, dysentery and cholera. To address this problem, in the early 2000s, CARE International partnered with Zambian government agencies to establish Water Trusts in several communities, completely run by community residents. The Water Trusts extract groundwater from relatively deep boreholes and deliver the water through underground pipes to numerous public tap stands. Vendors sell the water at limited times of the day for approximately \$0.02 per 20 L; the money is used to run and expand the water delivery systems. Not all residents, however, choose to purchase the Water Trust water. Instead, they may acquire water from shallow, hand-dug wells.

Methods: Research goals were to 1) assess the quality of water provided by the Water Trusts compared to water in the shallow wells, 2) assess the coverage provided by the Water Trusts, 3) explore why some residents might still acquire their drinking water from the shallow wells, and 4) document the reported extent of water-borne disease. Water quality was assessed in six communities mainly by measuring concentrations of *E. Coli* bacteria, an indicator of fecal contamination, and nitrate. Water Trust community coverage and attitudes towards different water sources were assessed with surveys given to Water Trust managers.

Findings: Water Trust-supplied water was generally high quality. Shallow well water was often directly influenced by nearby pit latrines as evidenced by high nitrate and *E. coli* concentrations. Water Trust managers reported that among the six communities, the percentage of people served ranged from 14 to 95% and averaged 55%. Many residents rely on the shallow well water due to the convenience (close by and always open) and the cost. Water Trust managers report much greater incidence of water-borne disease among residents drinking shallow well water.

Interpretation: Education and Water Trust provision expansion can decrease the incidences of these diseases.

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Disasters as a Global Health Topic: Understanding the Case of Haiyan in the Philippines

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Background: On 8 November 2013, typhoon Haiyan struck the central islands of the Philippines resulting in more than 6,000 deaths. This study seeks to characterize the global dimension of disasters through Haiyan and understand how it informs global health.

Methods: This is part of an ongoing study on typhoon Haiyan that seeks to identify the different factors that affect risk, recovery and resilience to disasters using a survey questionnaire, in-depth interviews and review of documents and literature.

Findings: Typhoon Haiyan is one of the major disasters in the recent times that attracted global attention due to a number of reasons. The devastation (death, injury, displacement and damages) was so massive resulting into a humanitarian appeal before a global audience. Governments, civil society and UN organizations provided massive support immediately after the disaster. Satellite technology enabled the international media to expect massive effect thus an anticipated response by the international community. International framework mechanisms in place were the rationale for many of the support. This includes bilateral and multilateral agreements, and international mandates of the international civil society organizations. Pledges amounted to USD 763 million with actual amount received at USD 336 million. Numerous humanitarian organizations were allowed to directly provide services sometimes undermining government efforts, which were seen inefficient. Managing

numerous players on the ground however resulted into disorganization of services. Different international actors can be categorized depending on the stage of their role within the disaster phases. There was an overall satisfaction by the affected populations on the role of international players during the disaster.

Interpretation: Typhoon Haiyan provides a good understanding on why major disasters are becoming more and more a global health

field. The understanding behind this changing nature of outlook towards disasters is embedded within various philosophies, motivations and frameworks that guide international actions which informs and reshapes the global health landscape.

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