

patients seen since 2010 were included in this study. The burden of disease, measured as the ratio of unique diagnoses per total patient encounters, was determined. Prevalence of intestinal helminthiasis, representing the greatest burden to the total patient population, was compared between 25 communities using bivariate and multivariate analysis.

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** FD patient records over the past 2 years indicate that intestinal helminthiasis represents the greatest perceived health burden in all 21 Ngobe communities visited, with 32% (95% CI,  $\pm 5.99$ ) of patients seeking treatment for worms, while non-indigenous patients present with worms in only 10% (95% CI,  $\pm 4.53$ ) of 421 consultations. Integrating the data from each community into geographic information systems (GIS) has allowed for meaningful graphic data presentation.

**Summary/Conclusion:** The overwhelming burden of helminthiasis is well known to FD clinicians and quantifying this burden in each community has provided both FD and the local Ministry of Health with an improved understanding of 1) geographic distribution of helminth burden, 2) the effectiveness of individual anthelmintic programs, and 3) regions that may require novel anthelmintic approaches.

As a consequence of this research and the partnership between Floating Doctors, US medical schools, and local Ministry of Health, a group of first-year medical students from Stony Brook University will be conducting a fecal sample study in the indigenous town of Norteno this summer. In addition to identifying the types of helminths burdening the community they will coordinate with the school's principal, teachers, and Peace Corps volunteer to implement a helminth education curriculum. This winter MD and MPH students will also be applying for a grant to install a Pan-American Health Organization (PAHO) chlorine filtration system for Norteno's largest aqueduct.

### Risk and prevalence of vertebral fractures among breast cancer survivors in China

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**Background:** Osteoporotic fractures lead to significant morbidity and mortality worldwide. Women with breast cancer (BC) are at high risk for fracture due to the deleterious impact of BC therapies on bone density. In China, BC survival is improving as screening, diagnosis and treatment programs expand, however, the long-term impact of BC therapy on fracture risk among Chinese women remains unknown and no guidelines exist to prevent BC treatment-induced bone loss. We designed a pilot study to evaluate the scope of this problem among BC survivors at a large cancer referral hospital in Beijing.

**Structure/Method/Design:** BC survivors receiving care at the Cancer Institute and Hospital of the Chinese Academy of Medical

Sciences between April and December 2013 were invited to participate. Women between 50 and 70 years of age were eligible if they had initiated treatment for BC at least 5 years prior to enrollment, and had no evidence of metastatic bone disease. Study procedures included a self-administered questionnaire regarding risk factors for and personal history of fracture and a thoracolumbar x-ray to assess for presence of vertebral fractures (VF).

**Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract):** 100 women were enrolled with a mean age of  $57 \pm 5$  years, and BMI of  $26.6 \pm 4.8$  kg/m<sup>2</sup>. Mean years since BC diagnosis was  $6.0 \pm 0.8$ . The majority of cases were stage I or II at diagnosis (79.2%) and estrogen and/or progesterone receptor positive (87%). In total, 12 VFs were identified via thoracolumbar x-ray. In terms of fracture risk, average reported lifetime height loss was  $1.7 \pm 1.1$  cm, 11% reported a parental history of fracture, 9% reported a personal history of fracture, and 22% of women reported falling within the past year. Forty-five percent of all participants reported taking calcium supplements, but only 4% reported taking vitamin D supplements. Only 25% of women reported having a bone density scan since being diagnosed with BC and 14.4% had been diagnosed by a physician with low bone density or osteoporosis.

**Summary/Conclusion:** Prevalence of VF among our cohort of Chinese BC survivors was 12%, much higher than recently reported rates among age-matched healthy Chinese women in Beijing of less than 5%. Chinese women undergoing BC therapy should be routinely evaluated for osteoporotic fracture risk. Larger studies are necessary to identify sub-groups at particularly high risk in order to inform screening and prevention guidelines.

### Design of the Dhulikhel Heart Study (DHS): The epidemiology of emerging cardiovascular disease in Nepal

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**Background:** The burden of disease in developing countries is shifting from infectious to noncommunicable diseases with devastating consequences to public health. As in most of the developing countries Nepal is currently experiencing a rapid growth in cardiovascular disease (CVD) but there is little community-based data available to measure its impact and track trends. The Dhulikhel Heart Study (DHS), based out of Dhulikhel Hospital, Kathmandu University, was designed to address this need by providing comprehensive data using standardized protocols to evaluate CVD prevalence, incidence, and risk factors.

**Structure/Method/Design:** The DHS is a prospective, longitudinal cohort study targeting all adults age  $\geq 18$  years and residing in the town of Dhulikhel, in central Nepal, for a baseline examination and planned 20-year follow-up. The home visit includes collection of informed consent, demographic and socio-economic characteristics, medical history, health behaviours, physical and cognitive function,