18 years old who attended schools on the day were selected to participate in the pencil-paper survey and reported their experience on road traffic crashes and near misses. Descriptive analysis and logistic regression were conducted by using STATA. Signed informed consents were given by all participants and the study was approved by IRB at Duke University and Ruhuna University.

Findings: A total of 1370 students (681 males and 689 females) with the average age 17.73 (+0.46) from 16 secondary high schools completed the survey. Among all respondents, 206 students self-reported they were involved in road traffic crashes in the past 6 months as victimized pedestrians (20.98%), cyclists (21.46%), three-wheel or motorcycle passengers (34.14%) and vehicle passengers (19.02%). 381 students experienced near misses and 33.24% of these events happened on the way to/from schools. 98 and 7 students suffered minor or severe traffic injuries respectively leading to on average 1.23 days off from school. However, only 21 students reported to the police and 16 students sought healthcare. The regression shows that male (OR=2.21, 95%CI [1.51, 3.24]) and cyclist (OR=2.20, 95% CI[1.03, 4.71]) are more likely to be involved in the crashes. Behavior factors, as crossing the street without looking both ways and vehicle conditions as not having seat belts also significantly increase the risk (p=0.001 and 0.037).

Interpretation: This study is one of the few studies that conducted a cross-sectional survey to understand the burden of road traffic injury and near misses among adolescents in LMICs. More attention should be given to adolescents in LMICs on road traffic injury prevention especially among males and vulnerable road users. Consistently with previous studies conducted in developed countries, improving the safety on the way to school is a potential way to significantly reduce the risk of road traffic injury among adolescents in developing counties. In addition, the low rate of reporting to the police and seeking healthcare indicates most previous studies based on second hand data may underestimate the burden of road traffic injury among adolescents in LMICs.

Funding: This study was supported and funded by Duke University Global Health Institute.

Abstract #: *02NCD003*

Injury-related death disparity in children under age five in low-income countries: An analysis of world health organization data

L. Goodman, S. Sen; University of California Davis, Sacramento, CA/US

Background: In the last 10 years there has been increasing attention given to injury as cause of childhood death, as the relative contribution of injury to mortality has increased. A recent analysis of childhood mortality predicts that in the next two decades the contribution of injury to childhood mortality before age five will increase. We aimed to elucidate the burden of childhood injury related death before age five by country income status. We hypothesize that childhood mortality due to injury is highest in the poorest countries and that the rate of injury related mortality has not changed since the year 2000.

Methods: We used World Bank country income groups (quartiles), and the six World Health Organization (WHO) regions: Africa, Americas, South-East Asia, Europe, Eastern Mediterranean and Western Pacific. We used the WHO dataset for injury deaths in newborns (0-27 days old), and children (1-59 months old) from 2000-2012. Data was analyzed by analysis of variance (ANOVA) and linear regression modeling using R-statistical package. All death rates are deaths per 1000 live births. All mean values are mean ± standard deviation. Statistical significance was set at $p < 0.05$.

Findings: From 2000 to 2012 there was only a small but non-significant world-wide decrease in injury related death rates (2.3 vs. 1.7, p=0.99). High-income countries (HIC) had a significantly lower death rate (0.46±0.3) than low income (LIC) (3.4±2.2, p=0.0000000), low-middle income countries (LMIC) (2.3±1.4, p=0.0000002) and upper-middle income countries (UMIC) (1.6±1, p=0.0036). On analysis by linear regression of injury death rates by region, LIC (B=2.9, p< 2 X 10 -16), LMIC (B=1.8, p=1.8 X 10 -8) and UMIC (B=1.1, p=0.0004) are significantly associated with higher injury related death rates. Additionally, while injury related death rates decreased, from 2000 to 2012, by 42% in HIC (0.6±0.5 to 0.35±0.3), death rates only decreased by 16% in LIC (3.7±2.8 to 3.1±2.4). By age groups, newborns and children in LIC suffered significantly higher death rates (0.4±0.1, p=0.0000000, and 4.7±0.3, p=0.0000000 respectively) than their counterparts in HIC (0.04±0.01 and 0.42±0.3 respectively).

Interpretation: There was no significant change in worldwide childhood annual mortality due to injury from 2000-2012. Low-income countries continue to bear the burden of world injury-related deaths in children under five. Efforts should be targeted at identifying the injury mechanisms causing these deaths in order to develop country and region specific preventative measures. Limitations and strengths of the study: Our study was limited by its retrospective nature and the inconsistent manner in which death data is collected across countries. The strength is improved by our focus on mortality rather than disability due to injury, which is fraught with inaccuracy by the necessary estimation of years of life lost due to disability.

Funding: None.

Abstract #: *02NCD004*

Sterilization and re-use of single use devices in India as a safe and acceptable method of cost reduction

C. Gutierrez; University of Texas Southwestern Medical School, Dallas, TX/US

Background: The sterilization and reuse of medical equipment marked by the manufacturers for single use only is a common practice in many hospitals in India. This practice becomes a concern when patient safety is compromised. The adverse reactions a patient may experience that may be tied to the reuse of SUDs include fever, hypertension, hypotension, sudoresis, chills, bleeding, nausea and vomiting. There is no national licensing regulatory authority in India. Hospitals follow an in-house protocol to determine safe standards of sterilization and reuse. This raises the question of whether protocols used in India are enough to prevent adverse reactions.

Objective: The objective of this study is to analyze the outcomes of Percutaneous Transluminal Coronary Angioplasty (PTCA) patients at different hospitals in India in order to determine the correlation between reuse of single use devices and adverse reactions.

Methods: The study took place in two hospitals in India with different economic resources, Medanta Medicity (high income) and Bangalore Baptist Hospital (low income). A retrospective chart review was done for PTCA patients at each hospital to determine whether there were any correlations between the number of reused SUDs used in a procedure and adverse outcomes. Forty PTCA patient charts were analyzed in Medanta and 42 in BBH. Reasons for hospitalization were similar at both hospitals. Data regarding the SUDs used during the procedure, and information regarding serious and non-serious adverse reactions following procedures was collected. Serious adverse reactions were considered death, pyrogen reactions

and extended hospital stays. Non-serious complications included formation of a hematoma, discoloration, oozing, swelling, or bleeding at the entry site. P values < 0.05 were considered significant.

Results: An independent T-test indicated a significant ($p < .001$) increase in the mean percentage in the number of reused SUDs at BBH. There was no difference in the number of complications that developed after surgery between the hospitals, despite the significant difference in the number of SUDs per procedure. When analyzing length of stay, the results showed significant ($p < .001$) increase in the average mean stay for patients in BBH which may be attributed to the initial health status of patients. No significant differences were found between hospitals in the severity of complications was analyzed (serious vs. non-serious).

Conclusion: There was no significant correlation between the reuse of single use medical devices and adverse outcomes for PTCA at either of the two hospitals in which the study took place.

Funding: No funding listed.

Abstract #: *02NCD005*

Osteoporosis-Related knowledge, self-efficacy and health beliefs among Chinese women with breast cancer

E. Hsieh[1], Q. Wang[2], X. Niu[2], L. Fraenkel[1], E. Bradley[3], K. Insogna[1], W. Xia[4], J. Smith[5], Y. Qiao[6], P. Zhang[2]; [1]Yale School of Medicine, New Haven, CT/US, [2]Cancer Institute and Hospital, Chinese Academy of Medical Sciences, Beijing, CN, [3]Yale School of Public Health & Graduate School of Arts and Sciences, New Haven, CT/US, [4]Peking Union Medical College Hospital, Beijing, CN, [5]University of North Carolina Gillings School of Global Public Health, Chapel Hill, NC/US, [6]National Cancer Center, Cancer Hospital of Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing, CN

Background: Women with breast cancer (BC) are at increased risk for fracture, particularly in resource-limited settings where infrastructure for osteoporosis screening and treatment is fragmented. Understanding behavioral factors that influence adoption of fracture prevention measures in this population is critical. Utilizing concepts from the Health Beliefs Model, we sought to evaluate osteoporosis-related knowledge, self-efficacy, and health beliefs among a cohort of breast cancer survivors in China.

Methods: From April 2013- August 2014, BC survivors receiving care at the Cancer Institute and Hospital of the Chinese Academy of Medical Sciences were invited to participate in this cross-sectional study. Women were eligible if they were 50-70 years of age, had initiated treatment for BC at least 5 years prior to enrollment, and had no history of prior osteoporosis or metabolic bone disease. Volunteers completed a mandarin-language questionnaire that included sociodemographic and fracture risk assessment, the International Physical Activity Questionnaire, a calcium and vitamin D intake scale, the Osteoporosis Knowledge Test (OKT), Osteoporosis Self-Efficacy Scale (OSES), and Osteoporosis Health Beliefs Scale (OHBS).

Findings: 200 women were enrolled with a mean age of 57.5±4.9 years, and BMI of 24.9±3.7 kg/m2. 78% of women had high school level education or beyond. Smoking (ever; 3%) and alcohol use (current; 5.5%) were rare. Rates of parental fracture history, personal fracture history, fall within the last year, and calcium supplement use were 10.6%, 10.5%, 15.7%, and 51% respectively. 53% engaged in high levels of physical activity and on average women reported consuming calcium/vitamin D rich foods more than once per week. Mean OKT score was 11.9±3.8 (scale: 0 to 26). OSES scores (scales: 0 to 100) indicated greater confidence regarding adopting dietary calcium intake behaviors (89.3±12.8) compared with exercise-related behaviors (66.8±15.2). OHBS scores (scales: 6 to 30) showed neutral levels of perceived susceptibility to (18.2±2.9) and seriousness of osteoporosis (20.1±3.3), high levels of health motivation (26.7±2.9), high perceived benefit to exercise and dietary calcium intake (25.9±3.6 and 23.6±3.3, respectively) and relatively low perceived barriers to these activities (14.0±3.9 and 14.0±3.5, respectively). Logistic regression adjusted for age and BMI showed that high dietary calcium/vitamin D intake was associated with fewer perceived barriers to dietary calcium intake (OR 0.84, 95%CI 0.77-0.93, p=0.001), and high physical activity level was associated with fewer perceived barriers to exercise (OR 0.92, 95%CI 0.84-0.99, p=0.04) and higher self-efficacy (1.02, 95%CI 1.01-1.05, p=0.02).

Interpretation: Despite high risk for fracture, women in our study demonstrated only moderate levels of knowledge regarding osteoporosis. Perceived barriers to dietary calcium intake and physical activity, as well as self-efficacy regarding physical activity may influence uptake of these behaviors. Understanding these associations can aid development of targeted fracture prevention measures for women with BC.

Funding: UJMT Fogarty Global Health Fellowship

Abstract #: *02NCD006*

Patterns and predictors of early mortality in the Tikur Anbessa hospital emergency department in Addis Ababa, Ethiopia: a prospective study

C. Hunchak[1], S. Teklu Waji[2], N. Meshkat[3], C. Meaney[4], L. Puchalski Ritchie[5]; [1]Schwartz/Reisman Emergency Center and Emergency Medicine Institute, Dept. of Family and Community Medicine, University of Toronto, Canada, Toronto, ON/CA, [2]Addis Ababa University School of Medicine, Department of Obstetrics & Gynecology and Emergency Medicine, Addis Ababa, ET, [3]Department of Medicine, University Health Network, University of Toronto, Canada, Toronto, ON/CA, [4]Department of Family and Community Medicine, University of Toronto, Canada, Toronto, ON/CA, [5]University Health Network, Department of Medicine, University of Toronto, Canada, Toronto, ON/CA

Background: Ethiopian emergency department (ED) patients have a high burden of illness and injury for which mortality rates have not been previously published. This study sought to characterize the burden of and to identify predictors for early ED mortality among patients presenting to the Tikur Anbessa Specialized Hospital ED (TASH-ED) in Ethiopia.

Methods: Data was prospectively collected from the records of all adult (>=15 yrs. of age) patients who died within 72 hours of ED admission to the Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia. Pearson's chi-square and Fisher's exact tests were used to investigate associations between time to death and cause of death in addition to demographic and clinical factors. Time from ED admission to death was dichotomized as 0-6 hours and 6+ hours and logistic regression was used to assess the adjusted impact of these variables on the probability of dying within 0-6 hours of ED admission. This study was approved by the Research Ethics Boards at Tikur Anbessa Hospital, Ethiopia and the University Health Network in Toronto, Canada.

Findings: Between October 2012 and May 2013, 16,056 patients visited the ED and 220 patients died within 72 hours of admission. After excluding patients dead on arrival (n=34), the average age of death was 43.1 years and the overall mortality rate was 1.2%. Head injury (21.5%) and sepsis (18.8%) were the most common causes of death. Relative to medical patients, trauma patients were younger