

needed and how research should be continued in the future. Primary, clinically significant findings point to further education about the benefits of breastfeeding and the use of contraception before and after pregnancy. The study's future lies with the local partner and their ability to continue and implement interventions to improve the health outcomes of this population.

Funding: The funding for this study was provided by the Mount Sinai Global Health Center.

Abstract #: 01SEDH009

The impact of neighborhood violence and social cohesion on smoking behaviors in Mexico

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Background: In recent years, Mexico has experienced serious increases in violent crime, which may impact multiple health indicators. Neighborhoods are important contexts for exploring the impact of violence on health. In this paper, we examined the relationship between neighborhood-level violence and smoking intensity, quit behaviors and relapse among a cohort of smokers in Mexico from 2011-2012, and whether the relationships were modified by neighborhood-level social cohesion.

Methods: Data were analyzed from Waves 5–6 of the International Tobacco Control (ITC) Mexico Survey. ITC Mexico is a population-based cohort study of adult smokers and recent ex-smokers from seven Mexican cities. Questions on neighborhood violence and social cohesion were asked of Wave 6 survey participants (n=2129 current and former smokers, n=150 neighborhoods). Neighborhood-level averages for violence and social cohesion (possible range 4-16 and 5-25, respectively) were assigned to individuals, based on their residence. Four outcomes were studied: (1) smoking intensity (6 or more cigarettes per day versus less than 6); (2) quit attempts (quit attempt in the past year); (3) successful quitting (having quit for at least one month); and (4) relapse (a smoker who quit at Wave 5, but smoked at Wave 6). We used generalized estimating equations to determine associations between neighborhood indicators and individual smoking behaviors. Participants provided informed, written consent. ITC Mexico was approved by Institutional Review Boards at the Instituto Nacional de Salud Pública (Mexico) and the University of Waterloo (Canada).

Findings: The number of participants varied according to the outcome analyzed: n=1728 for smoking intensity, n=1384 for quit attempts, n=492 for successful quitting, and n=307 for relapse. Higher neighborhood violence was associated with higher smoking intensity (Risk Ratio (RR)=1.06 for a one-unit increase, 95% Confidence Interval (CI) 1.01–1.11), and fewer quit attempts (RR=0.89 for a one-unit increase, 95% CI 0.83–0.94). Higher neighborhood social cohesion was associated with more quit attempts and more successful quitting, and modified the impact of neighborhood violence for smoking intensity.

Interpretation: In light of the increased violence in Mexico over recent years, smokers living in neighborhoods with more violence may smoke more cigarettes per day and make fewer quit attempts than their counterparts in less violent neighborhoods. Neighborhood social cohesion may buffer the impact of violence on smoking intensity. This is the first study to examine the impact of neighborhood violence and social cohesion on smoking cessation behaviors. We were limited by self-reporting of neighborhood social conditions, and small sample sizes for some outcomes.

Funding: Funding for data collection came from the Mexican Consejo Nacional de Ciencia y Tecnología (Salud-2007-C01-70032); funding for analysis provided by the National Cancer Institute at the National Institutes of Health (P01 CA138389) and the Canadian Institutes for Health (57897, 79551, and 115016).

Abstract #: 01SEDH010

Determinants of maternal health service utilization in urban Ethiopia

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Background: Antenatal care (ANC) and the presence of a skilled birth attendant (SBA) during delivery have been demonstrated to improve maternal health outcomes. In urban areas of Ethiopia, only 50% of pregnant women received the recommended four or more ANC visits; and only 51% pregnant women had an SBA present at delivery. To guide policy makers and public health managers in developing targeted maternal health program improvements, we examined the socio-demographic factors affecting maternal health service utilization (ANC and SBA) in urban Ethiopia to identify inequities in service use.

Methods: Using descriptive and bivariate analysis methods in SPSS V.19, we investigated the associations between women's use of maternal health services (ANC and SBA) and their socio-demographic determinants including household wealth, maternal age, and maternal educational attainment using data from the 2011 Ethiopian Demographic and Health Survey (2011 EDHS). With our focus on disparities in the urban environment, we subset our analysis to urban women surveyed (n = 1496).

Findings: Wealth, maternal age and education independently affected ANC service use. Women in the top wealth quintile were more likely (OR=6.0, P < 0.001). Educated women were more likely to attend ANC at least once (OR=4.3, p < 0.001) than uneducated women. Ninety-three percent of those who attended secondary education had at least one visit compared with only 59% of those with no formal education. Similar patterns were seen for skilled birth attendance. Household wealth predicted presence of SBA during delivery with the top three wealthiest quintile more likely to delivery with SBA than the lowest two wealth quintiles (OR=7.2, p < 0.001). Nearly 19% of the poorest quintile of urban mothers had delivered with SBA compared to 87.2% of the wealthiest quintile. Younger women (age 30 years or less) were likely to delivery in the presence of SBA than older women aged 30 years or older (OR=1.44, P < .001). Educated women were more likely (OR= 4.0, P < 0.001) to have an SBA at delivery than those not educated. Majority of births from women with secondary education were attended by SBA (84%) compared with few births (29%) from women lacking education.

Interpretation: Inequalities in wealth, education and age are shown to affect maternal health service utilization in urban Ethiopia. Targeted programs should focus on the poor and less educated segment of urban population to ensure improved maternal and child health outcomes.

Funding: No funding is obtained.

Abstract #: 01SEDH011

Determinants of healthcare seeking for childhood illnesses and vaccination in urban Ethiopia

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Background: Demographic and socio-demographic factors such as place of residence, maternal age, educational attainment, occupation, parity, house-hold wealth and religion are critical determinants of healthcare utilization. We examined socio-demographic determinants affecting child health service utilization in urban Ethiopia to support recommendations for policy makers and public health managers.

Methods: Using the 2011 Ethiopian Demographic and Health Survey (2011 EDHS) data, we investigated factors determining health service utilization (treatment seeking behavior for childhood illnesses and vaccination) and socio-demographic demographic factors such as maternal age, maternal educational attainment, and household wealth using descriptive statistics.

Findings: Among Ethiopian urban children age 12-24 months, 63% received the recommended three doses of DPT vaccine; 44% of urban children under 5 years of age with a fever or cough received appropriate treatment and 51% of the children with diarrhea were treated with oral rehydration salts (ORS) or recommended home fluids. Slightly more male children received medical treatment (56% for diarrhea and 43% for fever or cough) compared to females (44% and 32%) respectively. Maternal education and household wealth are shown to be the most important determinants of health care seeking for childhood illnesses and vaccination. The proportion of children who received DPT3 vaccination increased as maternal education and household wealth increased. Much higher proportion of children (78%) who are born to women who attended higher education received DPT3 than children born to women of no education (37%). Almost all (94%) children born to the wealthiest quintile households received DPT3 compared to only 42% of children in the poorest quintile. Maternal education and household wealth influence decisions to seek health care for childhood illnesses in urban Ethiopia. Much higher (86%) of urban children born to highly educated women receive ORS or recommended home solution for diarrhea compared to only 34% of children born to women without primary education. The relationship between education and fever treatment was not as large: nearly half (45%) of children born to highly educated mothers received treatment for fever or cough compared to children born to mothers with no education (34.5%).

Interpretation: In urban Ethiopia, inequalities in wealth and education are shown to affect child healthcare utilization. Health programs in urban Ethiopia should focus on the poor and less educated segment of urban population in order to improve child health outcomes.

Funding: No funding was obtained.

Abstract #: 01SEDH012

“Rather than talking in Tamil, they should be talking to Tamils”: Sri Lankan Tamil refugee readiness for repatriation

Abstract opted out of publication.

Abstract #: 01SEDH013

Building partnerships for trans-disciplinary global health research: the caribbean consortium for research in environmental and occupational health

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Program/Project Purpose: The Caribbean Consortium for Research in Environmental and Occupational Health (CCREOH) was established in September 2012. The overall aims of CCREOH is to characterize key environmental and occupational health (EOH) risks associated with gold mining-related mercury contamination, pesticide use in agriculture, and indigenous nutraceutical contamination to inform a gap- and opportunities assessment of relevant environmental policies; to create a sustainable public health and EOH network to serve as the trans-disciplinary research and training hub for CCREOH; to develop a trans-disciplinary research roadmap to guide the consortium’s EOH research leveraging all consortium partner assets; and to develop a capacity building portfolio including a regional EOH training program to successfully implement the priority areas articulated in the CCREOH research roadmap.

Structure/Method/Design: The overarching goal is to address high-priority EOH risks in Suriname and those common to the increasingly vulnerable Caribbean region while preserving the unique assets, health, and cultural traditions of indigenous and other health disparate populations. CCREOH’s investigator team is indicative of its trans-disciplinary research portfolio, bringing together an array of scientists from biology to epidemiology including toxicology and medicine. CCREOH builds on the existing partnerships between the Anton de Kom University of Suriname, Faculty of Medical Sciences, Tulane University, School of Public Health and Tropical Medicine, and the Caribbean Public Health Agency. Partner countries include Trinidad and Tobago, Guyana, and northern Brazil. Currently, research is exploring the antiproliferative effects of medicinal plants, analyzing pesticide residues in frequently consumed vegetables and fruits, as well as the role pesticides play as an effector in suicide attempts and successful suicides, and evaluating the data derived from preliminary environmental and occupational health policy assessments in partner countries.

Outcomes & Evaluation: Plant extracts inhibited the cell growth and may interfere with certain aspects of angiogenesis. Initial pesticide analysis revealed levels of endosulfan that exceeded maximum residual levels. Community health workers (CHW) successfully designed and pilot tested text messages regarding the use, storage and disposal of pesticides. Policy assessments showed a disconnect between increased development in agriculture and mining and lack of environmental health safeguards; a lack of science-driven EOH policies to protect public health; and an exponential increasing NCD burden in growing health disparate communities.

Going Forward: Studies to assess plant extracts for capacity to form capillaries as well as potential anti-oxidant properties are in preparation. Continued EOH assessments will include historical deposition of mercury and expanded pesticide analysis on agricultural products. Additional CHWs will be trained. A regional dietary assessment tool will be developed to ascertain potentially contaminated food intake. A priority is a proposal submission for a full GEOHealth research and training hub.

Funding: Fogarty International Center of the NIH under Award Numbers R24TW009570 and R24TW009561.

Abstract #: 01SEDH014

Livestock production and antibiotic resistant pneumonia in the elderly population of the United States

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