

Findings: Across all countries, variations were found in pre-established WHO definitions of adequate fruit consumption (≥ 2 servings daily), vegetables consumption (≥ 3 servings daily), fruits and vegetables consumption (5 servings of 2 fruits & 3 vegetables) and physical activity behavior (60 minutes daily) among adolescent girls. In most countries (35 out of 45) less than 50% of girls consumed 2 or more fruits per day. Vegetable consumption was consistently lower; in all countries less than 50% consumed 3 servings daily. Morocco had the highest percentage of girls (32.3%) consuming 5 servings of fruits and vegetables daily. Compared to adequate consumption of fruits and vegetable, the percentage of girls engaging in adequate daily physical activity was much lower. Country with the highest percentage of girls being active at least 60 minutes/day was India (28.4%). Using logistic regression models, we found a significant positive association between presence of any policy and adequate consumption of fruits {Adjusted Odds Ratio (AOR) = 1.47; 95%CI (1.41 – 1.53); p-value = 0.00}; adequate consumption of vegetables {AOR = 1.76; 95%CI (1.68 – 1.85); p-value = 0.00}; adequate consumption of fruits and vegetables {AOR = 1.84; 95%CI (1.73 – 1.96); p-value = 0.00} and adequate daily physical activity {AOR = 1.25; 95%CI (1.18 – 1.33); p-value = 0.00}. Among regions demarcated by the World Bank, the presence of fruit and vegetable policies had a positive impact on girls in Sub-Sahara Africa (SSA), the Middle East and North Africa and South Asia. Physical activity policy had a positive impact in SSA and South Asia.

Interpretation: This study shows that the presence of health policies provide a supportive environment for adolescent girls to consume an adequate amount of fruits and vegetables and to engage in adequate daily physical activity. WHO's recommendations for daily consumption of fruits and vegetables and physical activity were consistently low in all countries.

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Abstract #: 01SEDH007

Effect of a horticultural programme on access and availability of fruits and vegetables — a case study of the Kerala experience

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Background: Low fruit and vegetable intake is a leading risk factor for chronic disease globally. Horticulture programmes which encourage cultivation of fruits and vegetables have the potential to increase their intake and dietary diversity by ensuring an affordable year-round supply. My study draws on expert stakeholder testimony given during a “witness seminar” to determine the effect of new horticultural programmes on access, availability and affordability of fruits and vegetables in Kerala, India.

Methods: I rely on a witness seminar, a contemporary form of historical research, to examine the influence of horticulture programmes associated with Kerala State Horticulture Mission, Kerala, India on the food environment in Kerala and to uncover issues about access and availability of fruits and vegetables. Participants were purposive sampled from policy makers, experts, activists and representatives of non-governmental organizations representing agriculture/ horticulture (14); nutrition and food policy (4); and health (6), and gender & rural development and poverty eradication (3). Of the 35 invited attendees 27 attended, including panellists and audience members —8 women and 19 men[1]. [1] The witnesses and the audience were almost all from Kerala, save for one panellist who made the journey from Bangalore at his own expense.

Findings: Ethics approval was obtained from London School of Hygiene and Tropical Medicine and from each participant (written consent). I used NVivo 10(1) to do a qualitative analysis of the seminar transcript. Stakeholders argue that these recently adopted programmes have expanded fruit and vegetable farming throughout the region. Moreover, women's participation in farming has resulted in conserving and reviving agriculture. However, the programmes have had minimal impact on increasing the availability and affordability of fruits and vegetables. Instead, stakeholders claim that while the programmes benefited mostly banks, traders and farmers, consumers benefited least. Inequalities based on gender and class continue to dictate access to resources. Moreover, high levels of pesticide use, depletion of green leafy vegetables and replacement of local fruit and vegetable varieties are among the programmes' unintended consequences. 1. QSR. I. NVivo qualitative data analysis software. Version 10 2012.

Interpretation: This study points to the need to reorient horticulture programmes in societies with high rates of nutritional deficiencies and noncommunicable diseases to local health needs. It argues for equitable access and increased availability of toxin-free, affordable, local fruits and vegetables to support nutrition security and dietary diversity.

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Abstract #: 01SEDH008

The postpartum health status of women in an urban clinic in Santiago, Dominican Republic

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Background: The postpartum period is of vital importance for the health of both the mother and her newborn. The purpose of this study was to learn about possible trends and gain information about the health of women in the postpartum state.

Methods: This cross-sectional study was conducted over five weeks in a free, primary care clinic in an urban neighborhood in Santiago, Dominican Republic. Mothers with children between zero and six months were asked to complete a 24-question survey regarding their health practices, beliefs, and behaviors after childbirth while visiting the clinic (n=29). Patients were asked if they would like to answer the survey and verbal consent was given before beginning. Interviews were conducted in Spanish and in private rooms due to the sensitive nature of the questions. The study was approved by both the local and Mount Sinai IRB.

Findings: All surveys conducted were used in the study, including initial pilot surveys at the onset of the study. Basic percentages were gathered based on responses to multiple-choice answers, and 2 sample T-Tests were performed to examine differences between groups. Over 60% of women reported that their pregnancies were unplanned, 70% reported having a C-section, and 21% reported exclusive breastfeeding. Contraception use before and after pregnancy was also very low. Initial data analysis shows no significant difference (p>0.05) between any of the groups (younger versus older mothers, women using contraception, women breastfeeding, women with other children, or women who were married).

Interpretation: The survey results were limited due to the low sample size of the patient group. Therefore, more research is needed to fully understand the needs of this population in order to establish interventions that are generalizable to the community. This preliminary research however is helpful in deciding where focus is

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.

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

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