

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.

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### 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.

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### 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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