Introduction This study seeks to analyse the trend of homicide rate in México in last 30 years by age, gender and mechanism of death and identify the socioeconomic variables that better explain the spatial variations of homicide rate in Mexico in 2000 and 2008.

Methods Homicide rates adjusted by age were calculated; through the use of multiple regression analysis (stepwise method), variables that better explained the interstate variations in the homicide rates were identified.

Results The results show that although homicide rates in México have been relatively high, the rate markedly decreased between early nineties and 2005, but has increased around 35% in last 3 years; furthermore, years of potential life lost by homicide has increased in recent years because the victims are younger; currently, male homicide rate is nine times higher than female rate; throughout the period more than half of homicides were committed by firearms, and in recent years figures exceed 60%. Moreover, social exclusion, drug trafficking, impunity and firearms possession are key elements to understand the spatial variations of the homicide mortality in México in analysed years.

Conclusions In recent years it is observed a rise of the homicide rate and consequently, an increment of the social insecurity at a national level; to reduce the number of homicide victims and spatial variations in the rate, the Mexican government needs to combat the cartels of drug trafficking, but also to implement structural reforms to improve the life conditions of Mexican population and diminish the socioeconomic disparities among states.

Introduction Mexico has in recent years one of the highest rates of caesarean sections in the world and in turn, high rates of adolescent fertility. This study seeks to know the caesarean rate and to identify factors socioeconomic and related to medical practice associated to caesarean section in primiparous mothers under 20 years old in Metropolitan Area of Guadalajara, México.

Methods The study was conducted at various public hospitals randomly selected of different health institutions of the MAG. A cross-sectional study was carried out, collecting data of all <20 years old primiparous mothers that had their delivery at the hospitals included in study during the second half of 2008 (sample size: caesarean section 306, vaginal delivery 462). A logistic regression model was used to estimate ORs with 95% CIs.

Results Almost 40% of total deliveries were by caesarean section. In the multivariate analysis five factors were statistically associated with the caesarean section: labour induction (OR = 5.2, CI 2.8 to 9.5), body mass index ≥26 (OR = 4.0, CI 1.7 to 9.4), low socioeconomic level (OR = 2.9, CI 1.5 to 5.7), birth weight >3.500 g (OR = 2.0, CI 1.0 to 4.2) and maternal age 18–19 (OR = 3.4, CI 1.6 to 7.1).

Conclusions The caesarean section rate among adolescents is extremely high. Identified factors suggest the necessity of an adequate prenatal care to control those aspects that could lead to a caesarean section, but also the importance of quality care during childbirth to try to reduce the observed rates in the MAG.