Introduction

Low socioeconomic position (SEP) is an important risk factor for ischemic heart disease (IHD). Current surveillance methods use area-based SEP measures to monitor trends in socioeconomic inequalities in IHD. The extent to which these methods underestimate individual-level socioeconomic inequalities in IHD is unclear.

Objectives and Approach

The study objective was to estimate socioeconomic trends in IHD by household income and material deprivation in Ontario from 2000 to 2012. A pooled cross-sectional study was conducted using data from 6 Canadian Community Health Survey (CCHS) cycles (2000-2012) linked to the Discharge Abstract Database (n= 119,529 over 35 years of age, 55% female). Relative-weighted Poisson regression models were used to estimate IHD prevalence rates (adjusted for age, sex, ethnicity and immigration) across quintiles of equivalized household income and area-level material deprivation. Socioeconomic inequalities were estimated using the slope index of inequality (SII) and relative index of inequality (RII).

Results

Socioeconomic inequalities in IHD were observed across income and material deprivation quintiles. Measured using the SII, adjusted IHD rates were 345 per 10,000 (95%CI: 207,483) higher at the bottom of the income distribution than the top in 2000, decreasing to 167 per 10,000 (95%CI: 40,293) by 2012. These differences represented 2.52 (95%CI: 1.58,3.46) times higher IHD rates in 2000, an increased risk that remained in 2012 (RII: 1.80, 95%CI: 0.97,2.63). A similar pattern was observed across material deprivation quintiles, however with smaller absolute and relative inequalities observed in 2000 (SII:195 per 10,000, 95%CI:79,312; RII:1.64, 95%CI:1.16,2.11) and 2012 (SII:142 per 10,000, 95%CI:16,268; RII:1.54, 95%CI:0.94,2.14).

Conclusion/Implications

Consistent socioeconomic inequalities in IHD were observed in Ontario, with an absolute reduction between 2000 and 2012. Area-level material deprivation underestimated individual-level socioeconomic inequalities in IHD.