

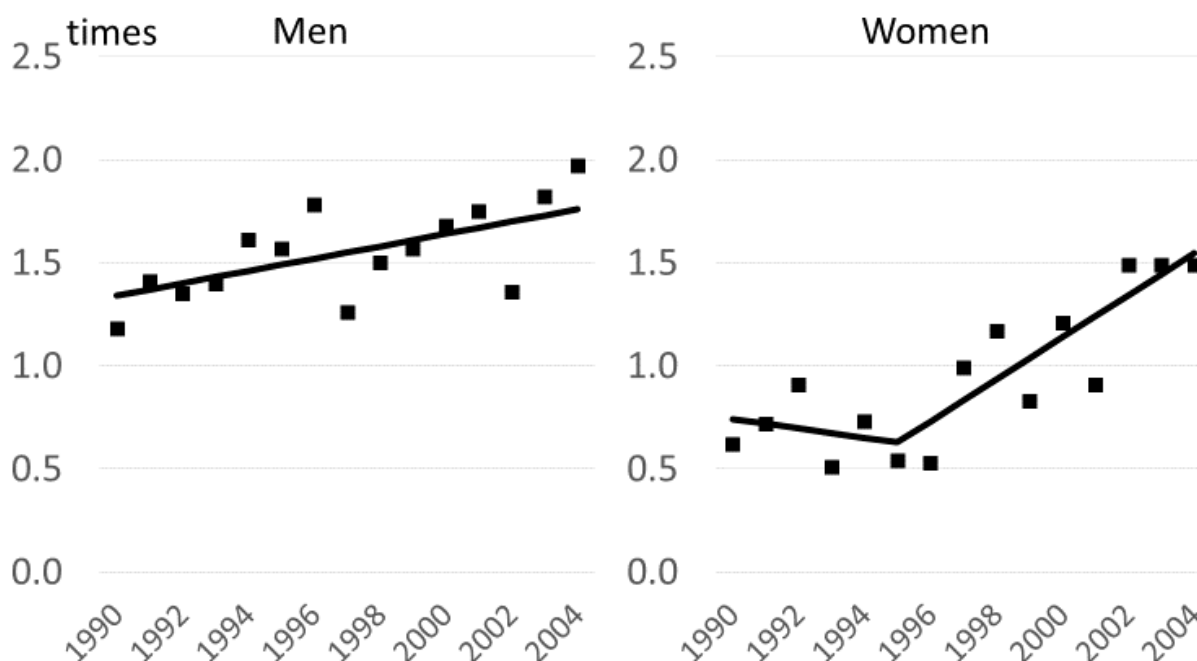
Income-based inequalities in suicide have widened by 3% in men and 10% in women every year in Sweden

Using data for the whole Swedish population aged 30 to 64 years and lived in Sweden from 1990 to 2007, substantial socioeconomic inequalities in suicide deaths were observed. In men, suicide inequality has widened by 3% every year. In women, suicide inequalities were smaller than men but have widened up to 10% every year after 1995. Bearing in mind that Sweden is a country with generous social security and welfare provisions with universal coverage, the substantial inequalities and their persisting and even widening trends were rather surprising. Additional measures may be necessary in proportion to the levels of financial vulnerability.

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Trends of relative index of inequality* on income-based suicide mortality



*Relative index of inequality represents the gap of suicide rate between the people in the lowest and the highest income groups, divided by average suicide rate (divided for the sake of keeping data comparability by year)/ Income-based inequalities in suicide increased by 3% every year in men and 10% in women after 1995.

Background

Income inequalities have risen from the 1990s to 2000s, in part due to the economic recession in 1994 and its aftermath. Economic fluctuations are associated with mental health and suicide risk, while welfare programmes including labour market programmes have been shown to alleviate a degree of negative impact on suicide. Therefore, with its generous and comprehensive welfare programmes, adverse influences of macroeconomic downturns may have been buffered in Sweden. Thus, we aimed to examine whether socioeconomic inequalities in suicide mortality have increased, and where the point of change is, if any.

Methods

We used Swedish national register data between 1990 and 2007 and focused on individuals who were aged 30 to 64 years (sample sizes were approximately 3.7 to 4.0 million in each year). Inequalities were measured based on two indices of inequality. One index measured the inequalities based on the difference of suicide mortality for the groups with the highest 20% of disposable income compared with the lowest 20% while taking account of the whole distribution of income in between (slope index of inequality: SII). Another index was obtained by dividing the difference by the population average suicide rate (relative index of inequality: RII). Changes in inequalities were then assessed whether it is stable or increasing, and if increasing, where the point of change. Age distribution was standardized across calendar years.

Results

The difference in the suicide mortality between the highest and the lowest income groups ranged from 28 to 45 in men and 5 to 17 in women (per 100 000 population) over the time. In men, temporal trends in suicide inequalities were stable in SII but increased by 3% each year in RII. In women, inequalities increase in both indices, especially after 1995, with annually RII was increasing by up to 10%.

Conclusions and implication

Despite universal social security and generous welfare provision, income inequalities in suicide were substantial and persistent or widening in men. The magnitude of inequalities in suicide was lower in women but there were steeper widening trends. Although we could not directly assess whether these widening trends are the consequence of macroeconomic changes, we speculate that the rise in suicide inequalities in women may be partially related to higher job insecurity and poorer working conditions in the female-dominated public sector after the recession. To reduce health consequences following an economic crisis and widening income inequalities, additional measures may be necessary in proportion to the levels of financial vulnerability.

Article information

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