

Urban-rural differences in the rise in youth suicide in England and Wales

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Background—Suicide rates have doubled in young men over the past 30 years in most industrialised countries. Explanations for these rises are unclear, but research from Australia indicates that the steepest rises have occurred in rural areas. It is speculated that these changes reflect a decline in the rural economy and its effects on rural communities, including the out-migration of healthier people. We have investigated whether similar geographical differences in trends in suicide exist in England and Wales.

Setting—England and Wales, 1981–92.

Methods—The wards of England and Wales were categorised into four quartiles of rurality using an index of population potential derived from the 1991 census. The index is based on the populations of all wards in Britain, each weighted by its distance from the centre of the index ward. Differences in suicide rates (ICD9 codes E950–959 and E980–989 excluding E988.8) between 1981–85 and 1986–92 were calculated in each quartile for 15–24 and 25–44 year old men and women separately using routine mortality data.

Results—In men, between 1981–85 and 1986–92, suicide rates increased by 4.9 (95% confidence intervals (95% CI) 4.3, 5.6) per 100 000 person years in 15–24 year olds and by 1.0 (95% CI 0.4, 1.7) in 25–44 year olds. In women, the changes were 0.6 (95% CI 0.3, 1.0) and –1.4 (95% CI –1.8, –1.1) in the same age bands. In men aged 15–24, rises in suicide rates were similar in both rural and urban areas. In men aged 25–44, however, there were striking differences across the four categories of rurality—most of the increase occurred in the most rural wards: 3.0 (95% CI 1.3, 4.7) while just 0.02 (95% CI –1.0, 1.0) in the most urban wards. In women aged 15–24, there were similar marked differences depending on rurality: 1.4 (95% CI 0.5, 2.3) in the most rural and 0.2 (95% CI –0.4, 0.8) in the most urban quartile. In women aged 25–44, suicide rates decreased over the years studied across all quartiles: –2.0 (95% CI –2.6, –1.4) in urban and –1.5 (95% CI –2.5, –0.6) in rural areas. It is unlikely that changes in unemployment explain these trends, as between 1981 and 1991 the greatest increases in unemployment were experienced in urban areas (correlation between change in unemployment and population potential 0.20; $p < 0.001$ in men and 0.33; $p < 0.001$ in women).

Summary—These findings suggest that the greatest increases in youth suicide have occurred in rural areas, in particular in 15–24 year old women and 25–44 year old men. The influence of changes in preferred methods of suicide as well as other social and economic changes in rural wards will be presented at the conference.