

Injury mortality in young people: urban-rural differences
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Unintentional injuries and poisoning are the leading cause of death among young people in Ireland, causing 45% of all deaths in the 5-14 year age group. There are almost 1,500 deaths from unintentional injury in Ireland each year, with 31,993 years of potential life lost from premature mortality in the 0-64 year old age group.

Studying the urban/ rural differences and epidemiology of injuries in young people in Ireland enables a prevention strategy for unintentional injury to be targeted at specific groups, and will inform the development of a national injury strategy in Ireland. It also permits us to identify potential environmental correlates of injury mortality, one of the goals of the EUROHEIS project

Mortality rates from all causes of injury, unintentional and intentional, were analysed from 1980 to 1996 in the 0-24 year old age group, using Central Statistics Office mortality data. The entire County of Dublin and the major cities of Cork, Waterford, Limerick and Galway were designated as urban areas and rural status was assigned to the remainder of the country. Age standardisation was carried out using census 1996 data.

The rate of injury mortality by both unintentional and intentional means was significantly higher in cities, compared to rural areas for all causes, with standardised mortality rate (SMR) of 107.8% ($p < 0.05$). Cities had significantly higher standardised mortality rates for poisoning, fire/ flame injury, falls and cuts ($p < 0.001$). In rural areas, deaths from machinery injuries were significantly higher ($p < 0.05$).

When analysed for unintentional injury alone, standardised mortality from falls was significantly higher in cities, with a SMR of 164.1% ($p < 0.001$). Poisoning mortality rates were significantly higher in cities (SMR 181.9%, $p < 0.001$). Standardised mortality rates from unintentional injury associated with machinery (SMR 114.2%, $p < 0.05$) and fire-arms (SMR=130.8, $p < 0.01$) was significantly higher in rural areas.

Mapping injury rates by urban/ rural status is a useful tool to identify high risk regions. Young people living in rural areas suffer increased mortality from machinery and fire-arm associated injuries, possibly due to greater exposure to hazardous activities; other factors such as greater distance from ambulance and emergency facilities and longer travel time to good trauma facilities may be implicated. This clearly requires further elucidation and indicates a target area for prevention. Cities, as found in other studies, had higher mortality rates for poisoning, fire/ flame injury, falls and cuts, suggesting socio-demographic or environmental characteristics that are highly correlated with location.