

Comparing injury-related deaths in Britain and Ireland

Wendi Slater¹, Julia Verne¹, Ronan Lyons², Colin Fischbacher³, Steve Barron⁴

- 1 South West Public Health Observatory (SWPHO), England 2 Collaboration for Accident Prevention and Injury Control (CAPIC), Wales
3 Information Services Division (ISD) Scotland 4 Ireland and Northern Ireland's Public Health Observatory (INISPHO)

Background

Injuries are a significant cause of death and disability in Britain and Ireland. However, injury prevention initiatives are hampered by a lack of access to relevant and reliable information, as well as funding limitations.

The Injury Observatory for Britain and Ireland (IOBI), a collaboration between members of the Association of Public Health Observatories and key academic institutions, has recently been established to address these concerns. It is centred on a website which aims to support injury prevention by providing a one-stop shop for information and tools on injury trends, policy support, reviews of evidence, practical interventions and latest relevant news and events.

To provide an information baseline, IOBI has published a comparative analysis of rates and trends in deaths due to injury between Scotland, Northern Ireland, the Republic of Ireland, Wales, England and the nine English regions for the years 1996 to 2003.

Methods

The injury categories and ICD diagnoses codes used were those recommended by the 'International Collaborative Effort (ICE) on Injury statistics'¹. The analysis was based on year of occurrence of death and backdated to allow for delayed death registrations. Northern Ireland 2002 activity was substituted for 2003 due to substantial registration delay. Each country provided numbers of deaths and rates per 100,000 population directly age-standardised to the European standard population with 95% confidence intervals to enable testing for statistically significant differences. SWPHO collated and analysed the data and other IOBI members also contributed to the commentary.

Conclusion and next steps

The analysis has highlighted significant differences in mortality rates and trends between the regions, and also suggests that some of this may be due to differences in classification and recording.

IOBI intend to extend the analysis to investigate these differences, and also to address recent ICE recommendations. An ONS paper² on mortality analysis suggested that ICE coding needs to be adjusted to get

Figure 1: Injury mortality rates by region, 1996–2003

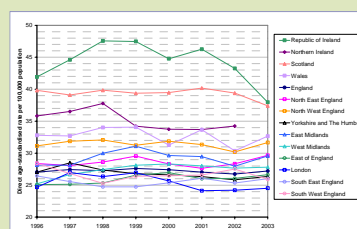


Figure 3: Poisoning mortality rates by intent, 2003

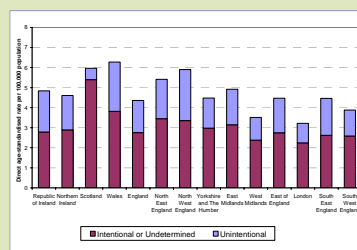


Figure 2: Injury deaths by percentage intent, 2003

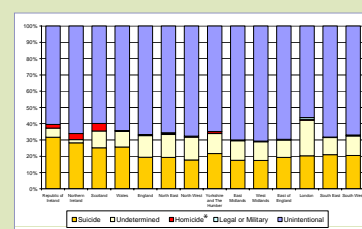
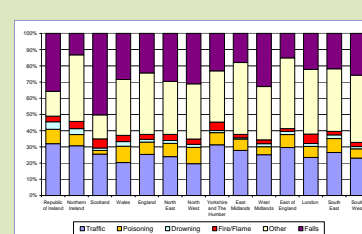


Figure 4: Unintentional injury deaths by percentage cause, 2003



Selected results

Approximately 22,000 people die each year due to injuries in Britain and Ireland. The Republic of Ireland, Northern Ireland, Scotland, Wales, the North West, West Midlands and East Midlands had significantly higher mortality rates, and London a significantly lower rate, compared to the England average in 2003. **Figure 1** shows the variation in regional rate trends since 1996.

14,212 (65%) of the deaths in 2003 were classified as unintentional. The remaining classifications were: 4,668 (22%) suicides; 2,583 (12%) undetermined; 223 (1%) homicides*; and 59 due to legal interventions or war. **Figure 2**, however, shows regional differences in these percentages.

* The homicide levels are misleading due to a significant undercount for England. This is due to the use of a temporary code to indicate 'undetermined' cause where an inquest has been adjourned pending legal proceedings. Subsequent re-coding accounts for half of homicides in England², however these re-codings are not included in routine data extracts provided by ONS.

Determining intent can also be difficult in the case of poisoning. **Figure 3** compares rates between those identified as 'intentional or undetermined' and 'unintentional' intent. It is interesting to note that Scotland has a significantly higher rate for intentional or undetermined poisoning, and a significantly lower rate for unintentional poisoning compared to the other regions.

Figure 4 also shows regional differences in the breakdown of all 'unintentional' deaths. Scotland's particularly high proportion of falls is of note. It has also been suggested that England's levels of drowning may appear lower due to a tendency to record a higher proportion as suicides or undetermined.

a fuller picture of the level of homicides (via estimation), poisonings (to include mental health related substance misuse) and falls (to include osteoporosis related fractures), and this has just been agreed by ICE at the world injury conference in April 2008.

The English Public Health Observatories are also seeking access to the annual ONS 'late extract' of mortality data which include re-coded items to provide more reliable information on homicides.

Deaths, of course, provide only a partial view

of the impact of injuries. IOBI are now planning analysis of hospital admissions and are also working with other agencies to improve access to other sources of data. The IOBI website also provides links to existing data available at PCT and Local Authority level.

References

1. International Collaborative Effort (ICE) on Injury Statistics <http://www.cdc.gov/nchs/advice.htm>
2. Office for National Statistics. Trends in injury and poisoning mortality using the ICE on injury statistics matrix, England and Wales, 1979–2004. www.statistics.gov.uk/articles/hsq/hsq32-injury&poisoning.pdf