



Injury Mortality in Ireland, Northern Ireland and Britain



INIsPHO Lunchtime Seminar December 2007

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Injury mortality in Ireland, Northern Ireland and Britain

- Method
- Issues in compiling and comparing injury mortality data across five countries
- Overview of data
- Why do we observe different rates in different countries?
- How can we use these data to tackle inequalities in injury mortality?



Method of data compilation

- Mortality data from Central Statistics Office and Northern Ireland Statistics and Research Agency
- Deaths due to external causes of mortality as per International Collaboration Effort on Injury Statistics (ICE) categories based on ICD
- Compiled number of deaths in 5-year age bands that occurred during the years 1996-2003.



Issues in data compilation

- Completeness of data
 - Data based on year of occurrence to avoid delays in registration
 - Allow time for occurrence data to be complete
- Different classification systems
 - UK have used ICD10 since 2001
 - Republic of Ireland only began to use ICD10 in 2007
 - Bridge coding study (ONS England 2003): no effect on overall numbers; decrease in deaths coded as falls because “fracture of unspecified cause” included in ICD9 falls is not included in ICD10 falls. IOBI excluded “fracture of unspecified cause” from ICD9 analysis to improve comparability.
- Different coding practices between countries
 - England and Wales use a temporary “undetermined” code until an inquest is complete. Republic of Ireland and Northern Ireland exclude deaths from occurrence data until inquest is complete.



Overview of data

- All injuries and external causes
 - Unintentional (e.g. accidental falls, MVTA)
 - Intentional (i.e. suicide and homicide)
 - Undetermined
 - Legal intervention & acts of war
- Data comparisons over time refer to the period 1996-2003 (Northern Ireland 1996-2002)
- Significant differences between regions refer to 2003 (Northern Ireland 2002)
- Calculated directly age-standardised rates and 95% confidence intervals per 100,000 European Standard Population



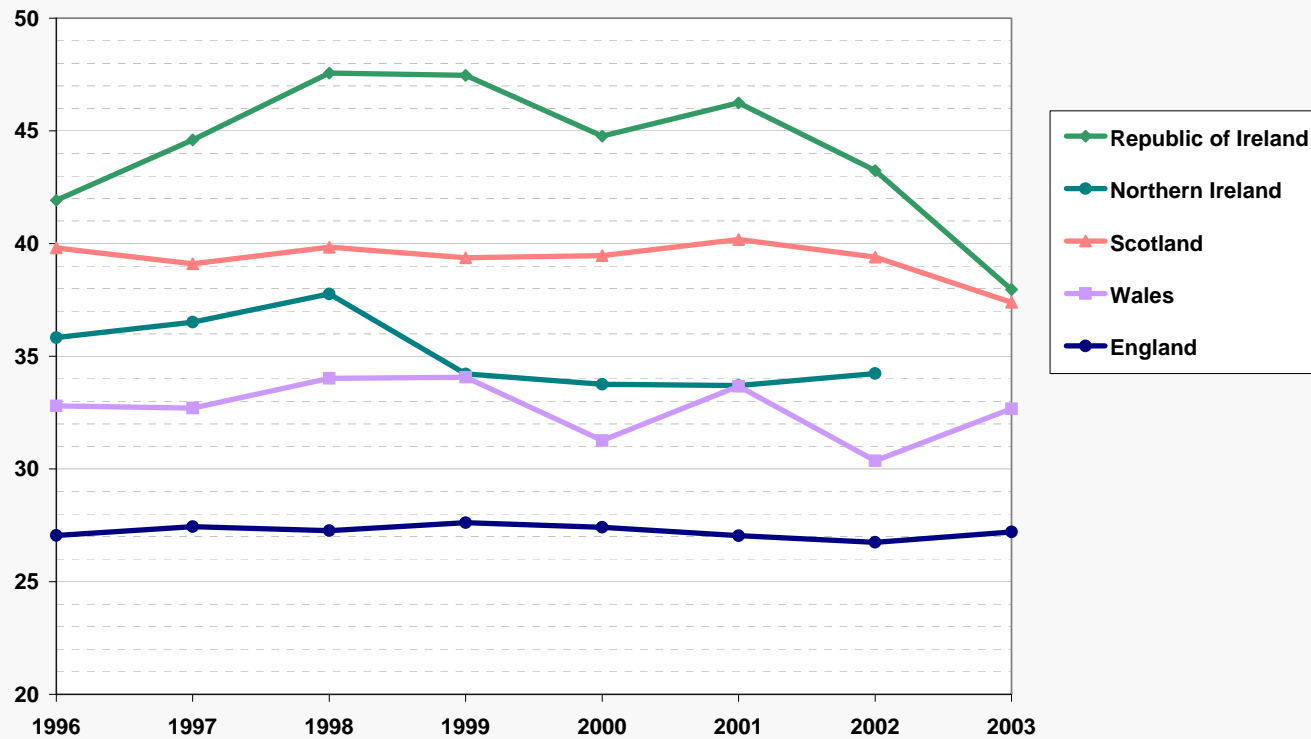
Overview of data

- Deaths from injuries and external causes account for ~ 5% of all deaths (CSO Vital Statistics 2004; ONS 2004).
- 21,686 deaths occurring in the five countries in 2003 (Northern Ireland 2002) due to injuries or external causes
- 66% unintentional
 - 18% falls
 - 17% motor vehicle traffic accidents
 - 5% unintentional poisoning
 - 2% fire and flame
 - 1% drowning
- 23% intentional
 - 22% suicide
 - 1% homicide
- 12% undetermined



All injury deaths

European Age Standardised Mortality Rates for All Injuries:
Britain & Ireland 1996-2003





All injury deaths

○ All injuries over time 1996-2003

- Republic of Ireland has the highest rate each year; largest decrease in rate (-9%).
- Scotland has the second highest rate; relatively stable during the period.
- Northern Ireland and Wales have similar rates.
- England had the lowest rate each year.

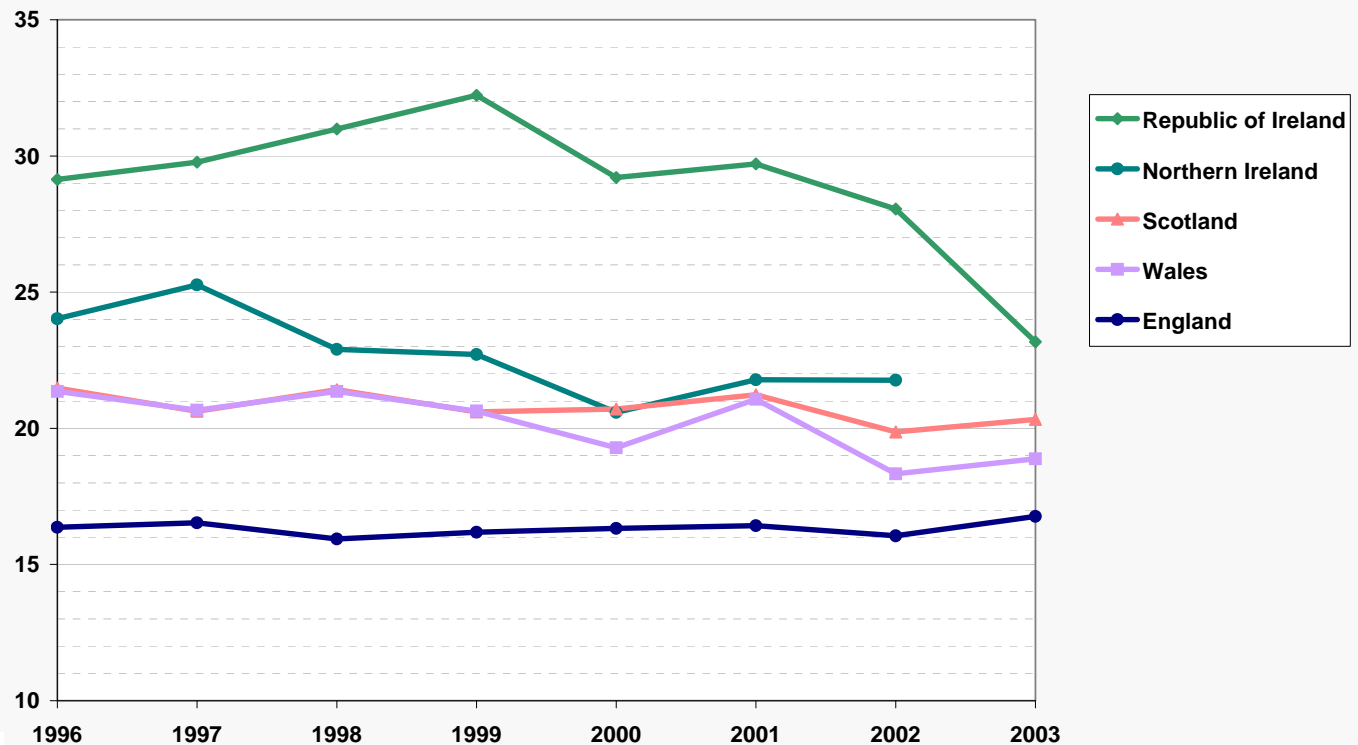
○ All injuries 2003

- Republic of Ireland and Scotland show a significantly higher rate than other countries.
- England's rate is significantly lower than other countries.



All unintentional injury deaths

European Age Standardised Mortality Rates for Unintentional Injuries:
Britain & Ireland 1996-2003





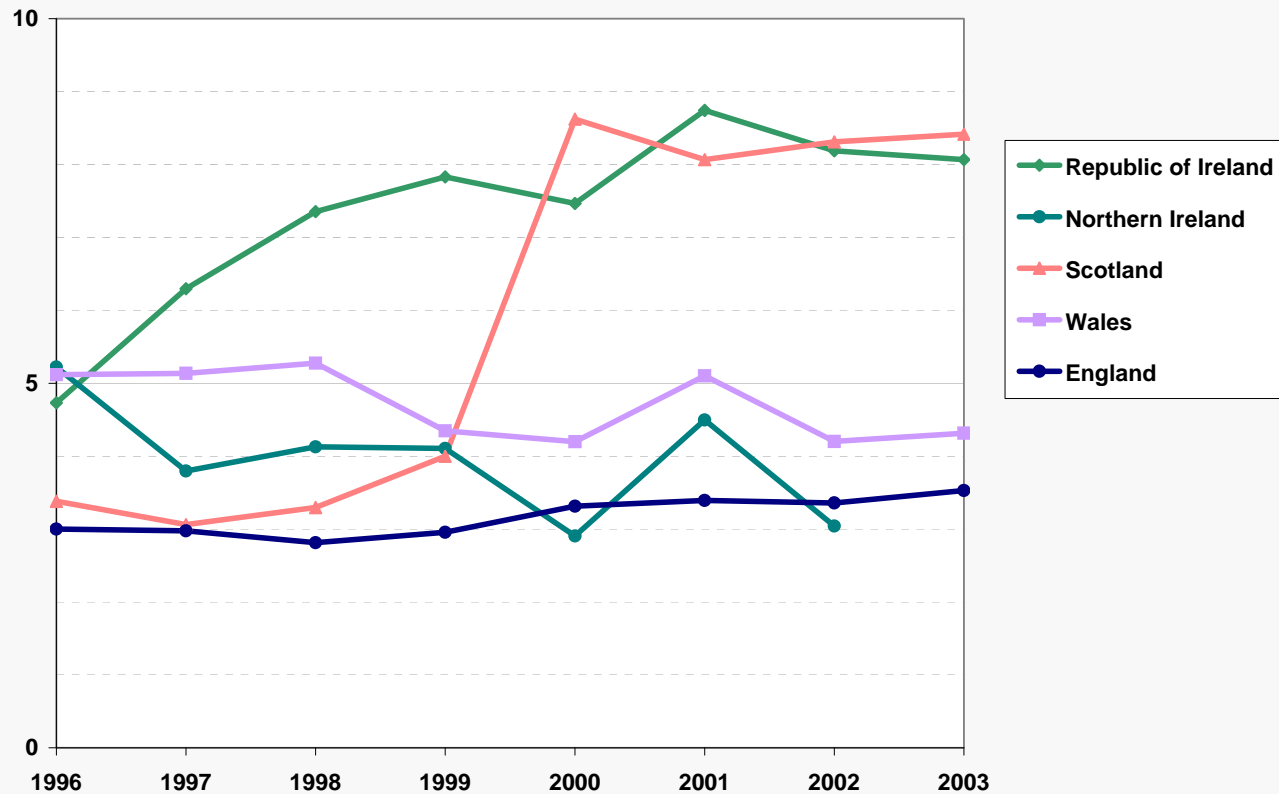
All unintentional injury deaths

- All unintentional injuries over time 1996-2003
 - Republic of Ireland had the highest rate each year; largest decrease in rate (-21%).
 - Northern Ireland, Scotland, Wales show similar levels.
 - England had the lowest rate each year.
- All unintentional injuries 2003
 - Republic of Ireland has a significantly higher rate than all other countries.
 - England has a significantly lower rate than all other countries.



Unintentional injury deaths - Falls

European Age Standardised Mortality Rates for Unintentional Falls:
Britain & Ireland 1996-2003





Unintentional injury deaths - Falls

○ Falls over time 1996-2003

- Large increases in Republic of Ireland (+71%) and Scotland (+149%).
- Scotland rate more than doubled between 1999 and 2000; suggests a change in coding practice?
- England and Wales have remained relatively stable.
- Northern Ireland had the largest decrease in rate (-41%).

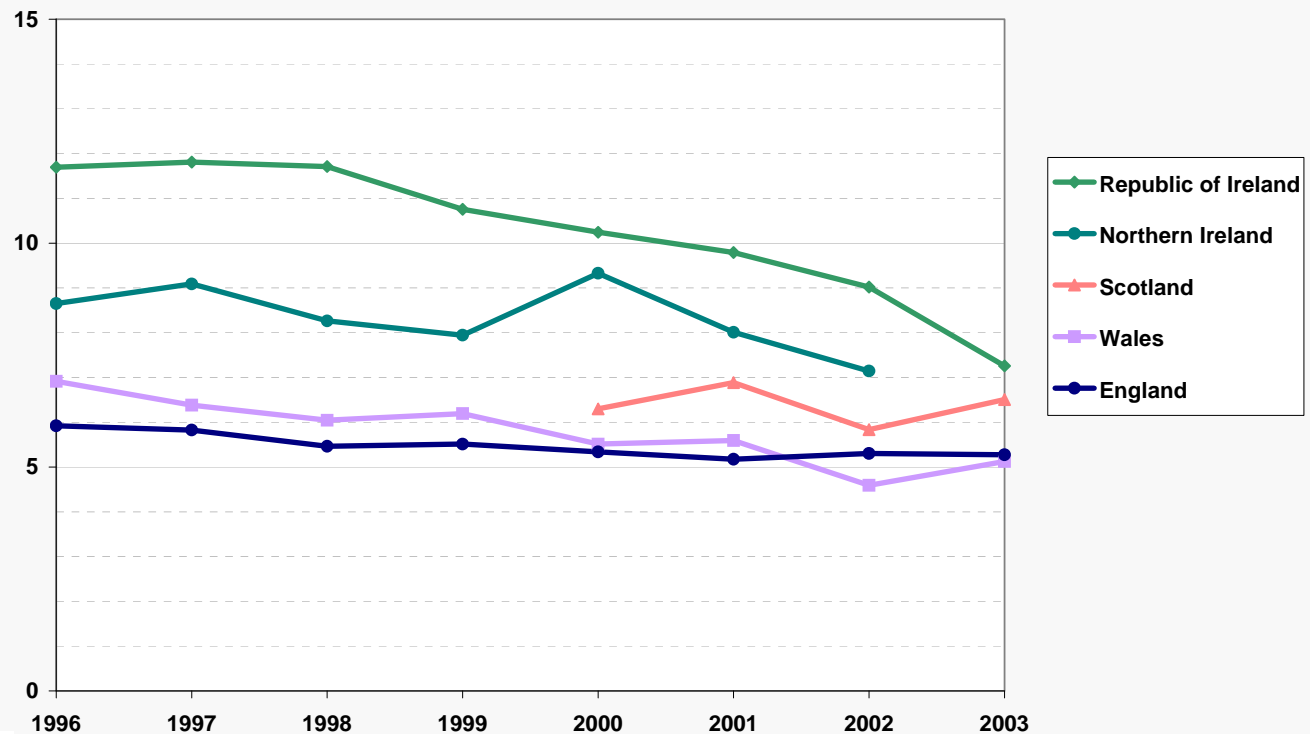
○ Falls 2003

- Republic of Ireland and Scotland show a significantly higher rate than other countries.
- Are non-injury codes being used in some countries when falls occur? ONS England and Wales (2004) suggest adding “Deaths from osteoporosis” to the falls category. Increases number of fall deaths by 48%

Unintentional injury deaths

All motor vehicle traffic accidents

European Age Standardised Mortality Rates for Motor Vehicle Traffic Accidents:
Britain & Ireland 1996-2003





Unintentional injury deaths

All motor vehicle traffic accidents (MVTA)

- All MVTA over time 1996-2003
 - Republic of Ireland has the highest rate each year; largest decrease in rate (-38%).
 - Northern Ireland had the second highest rate each year; rate decreased by 17%.
 - Scotland relatively stable (data not available prior to 2000).
 - Similar levels observed in England and Wales.
- All MVTA 2003
 - All countries show similar rates; no significant differences.



Unintentional injury deaths 2003

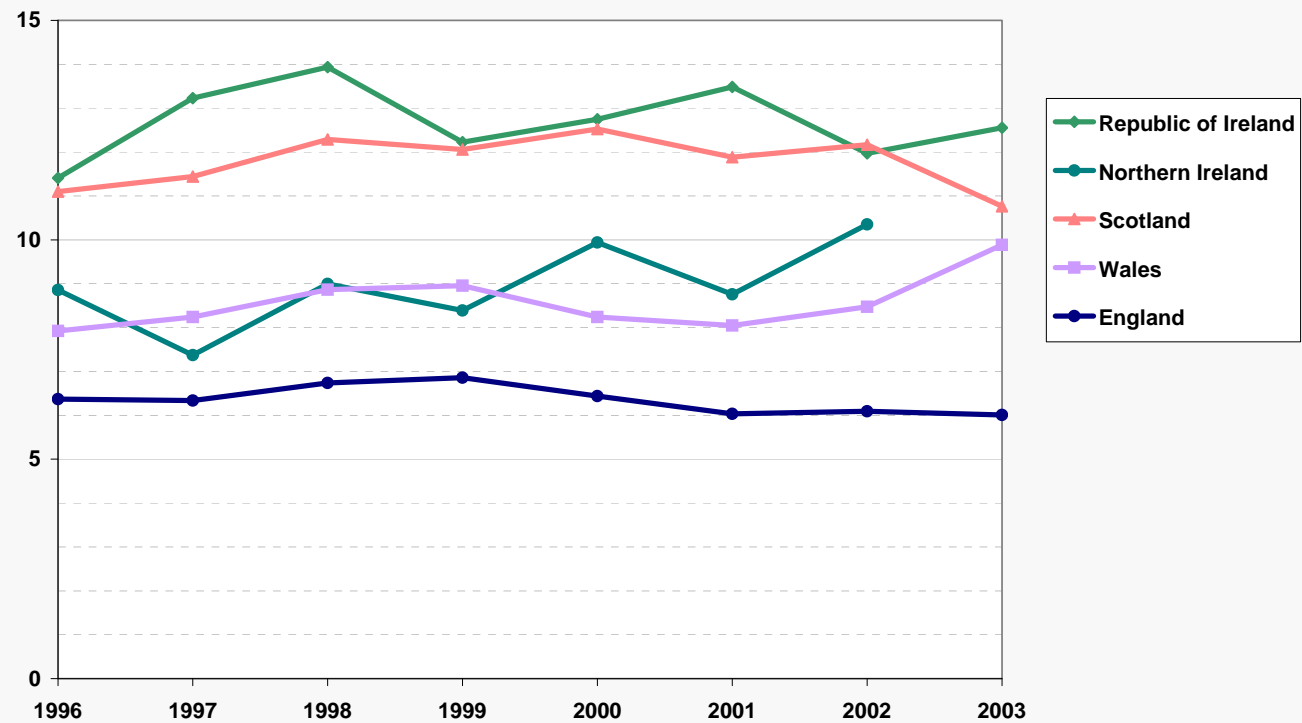
All motor vehicle traffic accidents

- 3,653 deaths due to MVTA in Ireland, Northern Ireland and Britain in 2003
 - 55% occupants
 - 20% motor cycles
 - 19% pedestrians
 - 2% pedal cyclists
- Motor cyclists over-represented. For example, Road Safety Authority estimate that motor cycles comprise 2% of traffic fleet



Intentional injury deaths - Suicide

European Age Standardised Mortality Rates for Suicides:
Britain & Ireland 1996-2003





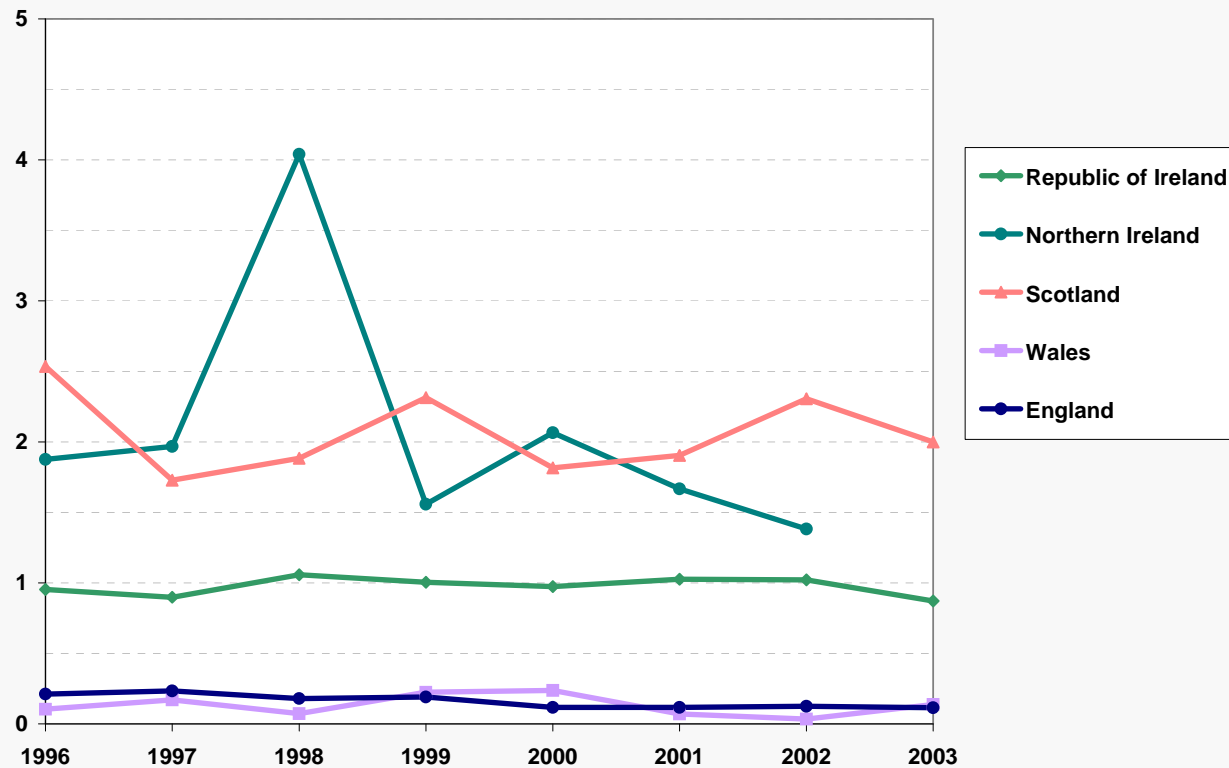
Intentional injury deaths - Suicide

- Suicide over time 1996-2003
 - Republic of Ireland and Scotland have been consistently highest.
 - Northern Ireland and Wales show similar rates and are increasing in recent years.
 - England shows the lowest rate each year.
- Suicide 2003
 - Republic of Ireland has a significantly higher rate than all other countries.



Intentional injury deaths - Homicide

European Age Standardised Mortality Rates for Homicides:
Britain & Ireland 1996-2003





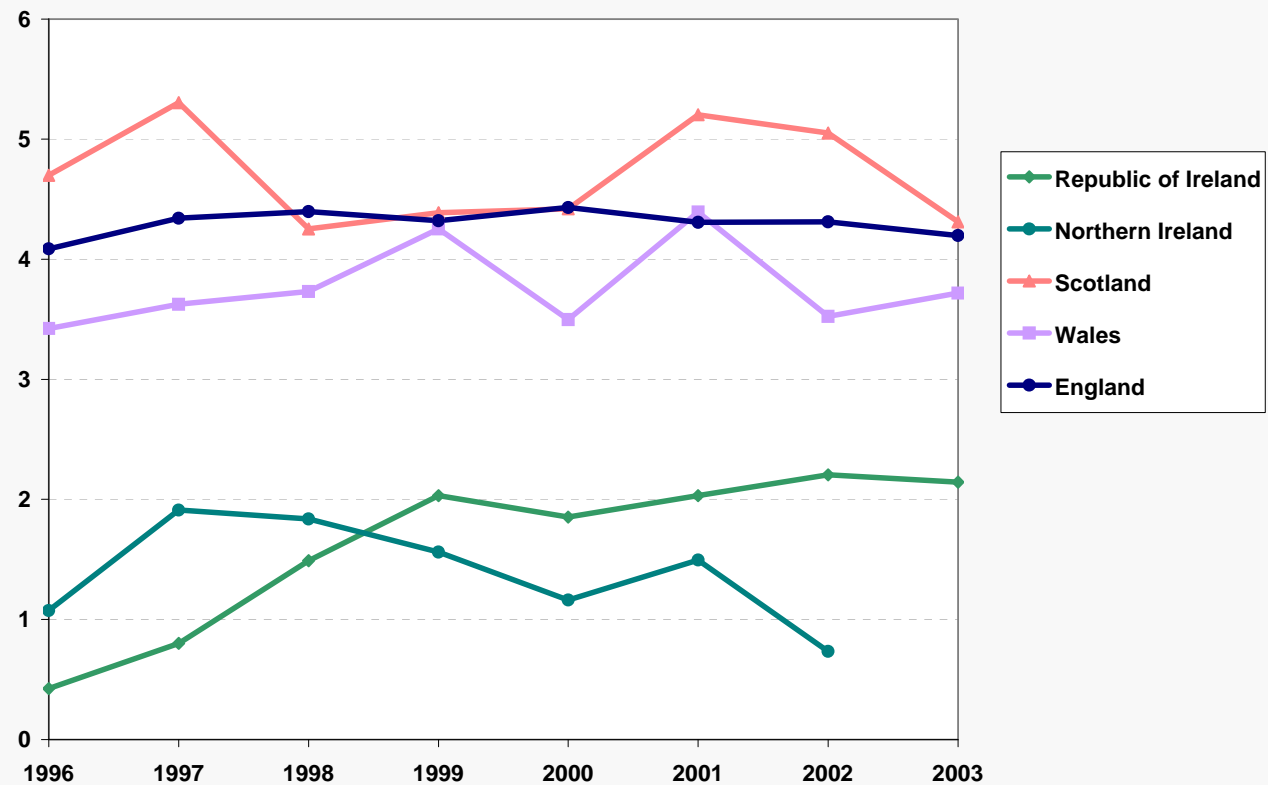
Intentional injury deaths - Homicide

- Homicide over time 1996-2003
 - Consistently high rate in Scotland.
 - Northern Ireland has had an historically high homicide rate that has been decreasing in recent years (-26% 1996-2003). Peak rate in 1998 reflects deaths due to the Omagh bombing.
 - Republic of Ireland rate has been relatively stable.
 - Similar, relatively low rates in England and Wales.
- Homicide 2003
 - Scotland has a significantly higher rate than all other countries.



Injury deaths - Undetermined intent

European Age Standardised Mortality Rates for Undetermined deaths:
Britain & Ireland 1996-2003





Injury deaths - Undetermined intent

- Undetermined intent over time 1996-2003
 - Republic of Ireland and Northern Ireland have the lowest rates of deaths due to undetermined intent. The rate is increasing in Republic of Ireland but decreasing in Northern Ireland.
 - In England and Wales a temporary “undetermined” code is assigned to deaths where an inquest is not yet complete. This will inflate the “undetermined” figure until the data is recoded on completion of the inquest.



Why do we observe different rates between countries?

- Do they reflect real differences in injury mortality?
- Do they reflect differences in how we measure injury mortality?
 - Data completeness
 - Different classification systems
 - Different coding practices
- Do they reflect differences in the environments?
 - Different physical environments e.g. are roads better and safer in some countries?
 - Different social environments e.g. attitudes to safety
- Do they reflect differences in how we approach injury prevention?
 - Different public health priorities e.g. development of national injury prevention strategies
 - More effective approaches to injury prevention e.g. success of safety campaigns



How can we use these data to tackle inequalities in injury mortality?

- Identify lessons we can learn from other countries
- IOBI will be useful as it works across five countries
- Examine ways we can use IOBI to focus and co-ordinate injury prevention on the island of Ireland



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