Population Mortality and Morbidity in Ireland
Agenda

- Mostly good news
- But some bad news
- Cohort analysis
- Years lost analysis
- Lessons from study
Irish Population Mortality 1962-1996

Age Standardised Mortality Rates - Ireland Population 1962-1996
# Mortality Improvement by Age Group

<table>
<thead>
<tr>
<th>Age-band</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>80%</td>
<td>77%</td>
</tr>
<tr>
<td>5-14</td>
<td>51%</td>
<td>73%</td>
</tr>
<tr>
<td>15-24</td>
<td>-13%</td>
<td>37%</td>
</tr>
<tr>
<td>25-34</td>
<td>3%</td>
<td>47%</td>
</tr>
<tr>
<td>35-44</td>
<td>38%</td>
<td>57%</td>
</tr>
<tr>
<td>45-54</td>
<td>42%</td>
<td>52%</td>
</tr>
<tr>
<td>55-64</td>
<td>34%</td>
<td>42%</td>
</tr>
<tr>
<td>65-74</td>
<td>19%</td>
<td>36%</td>
</tr>
<tr>
<td>75-84</td>
<td>15%</td>
<td>32%</td>
</tr>
<tr>
<td>85+</td>
<td>18%</td>
<td>23%</td>
</tr>
</tbody>
</table>
Cardiovascular diseases

- 43% of all deaths are due to such conditions
Cardiovascular - Heart disease

- For heart disease, trend is downwards for both males and females
- Mirrors international experience, though fall is at a faster rate than EU average
- However, is still higher than EU average
Cardiovascular - Stroke

- Trend is downwards for incidence of death due to a stroke for both males and females.
- Fall again is at a faster rate than EU average.
- So, much so that there is no statistical difference between Ireland and EU average experience.

![Trend in mortality rates from stroke - females 1962 to 1996](image-url)
Part 2

The bad news
International Experience Comparisons

Irish male age standardised mortality rates expressed as percentage of average sample country rates

International Experience Comparisons

Irish female age standardised rates expressed as a percentage of average sample country rates

# Mortality rates by cause for 15-34 year olds

<table>
<thead>
<tr>
<th>Cause</th>
<th>Males 15-24</th>
<th>Males 25-34</th>
<th>Females 15-24</th>
<th>Females 25-34</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infectious and Parasitic Diseases</strong></td>
<td>2%</td>
<td>1%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Malignant Neoplasms</strong></td>
<td>7%</td>
<td>9%</td>
<td>10%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>All Circulatory Diseases</strong></td>
<td>3%</td>
<td>7%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Injury and Poisoning</strong></td>
<td>75%</td>
<td>66%</td>
<td>44%</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Road Traffic Accidents</strong></td>
<td>33%</td>
<td>24%</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Suicide</strong></td>
<td>25%</td>
<td>26%</td>
<td>15%</td>
<td>12%</td>
</tr>
<tr>
<td><strong>Homicide</strong></td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>16%</td>
<td>15%</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>All Other Diseases</strong></td>
<td>13%</td>
<td>19%</td>
<td>28%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Mortality Rates from Road Traffic Accidents 1962 - 1996

Trend in mortality rates from rtas - males 1968 to 1996

Year

15-24
25-34
35-44
45-54
55-64
Mortality Rates from Suicide 1962 - 1996

Trend in mortality rates from suicide - males 1976 to 1996
Suicide

- Rate of suicide has risen sharply over the last 20 years
- Possible reasons for the increase include:
  - Underlying rate has increased significantly
  - Reporting may have increased
  - Coding may be more accurate
- One of main cause of deaths within 15-34 age group
- Significantly higher incidence among males than females
- Particularly high incidence rate among young males
Cancer

- Second largest cause of death in Ireland
Mortality Rates from Lung Cancer 1962 - 1996

Trend in mortality rates from lung cancer - females 1962 to 1996

Trend in mortality rates from lung cancer - females 1962 to 1996
Cancer – Breast cancer

- Ireland has one of the highest rates of breast cancer in the EU
- Trend for incidence at younger ages is downwards
- For older lives, trends appears to be upward
- Could be explained by differences in screening programmes
- Western world has significantly higher incidence of breast cancer than developing world
Part 3

Cohort analysis
Male mortality improvements by decade & age group

Male mortality improvements Ireland
Population
split by decade & age group

annual rate of mortality improvement

age group

decade

25-34 35-44 45-54 55-64 65-74 75-84 85+
Female mortality improvements by decade & age group

Female mortality improvements - Ireland population split by decade & age group

annual rate of mortality improvement

age group

decade

1962-1970
1971-1980
1981-1990
1990-1996
Part 4

Assessing impact of diseases on population health
Males

Cause of Death versus Years’ Lost

Male age standardised rate split by cause
Ireland population 1996

Male years lost split by cause
Ireland population deaths 1996
Females
Cause of Death versus Years’ Lost

Female age standardised rate split by cause
Ireland population 1996

Female years lost split by cause
Population deaths 1996
Part 5: Lessons from study

1. Media attention
2. Years’ lost concept
3. Importance of non-illness mortality
4. Complexity
5. Can we fix it – Yes we can!