Emergency hospital admissions caused by unintentional and deliberate injuries to children and young people aged 0-17 years

This report is an overview of emergency admissions for unintentional and deliberate injuries to children and young people resident in Wirral.

The reduction of emergency hospital admissions caused by unintentional and deliberate injuries to children and young people is an indicator which is monitored by the Local Area Agreement policy (LAA). This indicator (NI70) monitors accidents because they are a leading cause of injury in children and young people and disproportionately affect people from lower socio-economic groups. The full definition of the data used for the analysis in this report (including the ICD 10 codes) is given in Appendix 1.

Trends in admissions

Trends in admission rates for unintentional and deliberate injuries to children and young people have shown a general increase over the previous 8 years. As Figure 1 shows, there was an increase in rates from 2001-02 to 2004-05 which later leveled out in 2006-07.

Figure 1: Emergency hospital admission rate (per 10,000) in Wirral for unintentional and deliberate injuries to children & young people aged 0-17, 2001-02 to 2008-09

Source: SUS (Secondary User Service)
Current Data

In 2007-08, Wirral had one of the highest rates of emergency hospital admissions caused by unintentional and deliberate injuries to children and young people in the North-West.

- In 2007-08, the emergency admission rate for Wirral was 159.58 per 10,000 population compared to the North West overall which had a rate of 121.54 per 10,000 emergency admissions and England with a rate of 148.25 respectively.

Figure 2: Emergency hospital admission rate for unintentional and deliberate injuries to children and young people per 10,000 aged 0-17 years, 2007-08

Source: South West Public Health Observatory, 2009

Emergency hospital admissions for unintentional and deliberate injuries to children and young people by deprivation

Emergency admissions for unintentional and deliberate injuries to children and young people are higher in the most deprived population of Wirral (Figure 3). In Wirral, 51% of all emergency hospital admissions for unintentional and deliberate injuries to children and young people occurred within quintile 5, the most deprived areas of Wirral.

- The most deprived quintile has twice the rate of admissions as the least deprived quintile.
Figure 3: Emergency hospital admission rates for unintentional and deliberate injuries to children and young people per 10,000 aged 0-17 years, 2006-07 to 2008-09 (3 years pooled)

Emergency hospital admissions for unintentional and deliberate injuries to children and young people by statistical ward

Ward level analysis in Figure 4 revealed the geographical spread of hospital admissions related to injuries.

- Between 2006-07 and 2008-09, the majority of admissions occurred in patients who lived in Birkenhead, Bidston, Seacombe, and Tranmere
- Birkenhead residents had the highest rates, 247 admissions per 100,000 population
- Royden residents had the lowest rates, 104 admissions per 100,000 population
Emergency hospital admission rates caused by unintentional or deliberate injuries to children and young people per 10,000, 0-17 years, 2006/07 to 2008/09

The most over represented Mosaic grouping is Group G which is described as ‘low income families living in estate based social housing’ (see Figure 5). People who fall into this category are likely to be families on the lowest incomes with a low level of educational attainment, living in disadvantaged communities with high unemployment rates.

- People from Mosaic Group G are 78% more likely to be admitted to hospital than you would expect (given the numbers of people who are classified as belonging to this group in Wirral). This supports the large body of evidence (and both national and Wirral data) which shows that the most deprived population groups are disproportionately much more likely to bear the burden of accidents and injuries.
- People from Mosaic Group A are 38% less likely to be admitted to hospital than you would expect (given the numbers of people who are classified as belonging to this group in Wirral). This is not surprising, as this is the most affluent group in the Mosaic classification system and as previous information has shown, injuries are strongly associated with deprivation.

Source: SUS (Secondary User Service)
Figure 5: Emergency hospital admissions caused by unintentional or deliberate injuries to children and young people per 10,000, aged 0-17 years & Mosaic group, 2006-07 to 2008-09

<table>
<thead>
<tr>
<th>Mosaic Public Sector Groups</th>
<th>Your area/file</th>
<th>%</th>
<th>Comp.</th>
<th>% Pen.</th>
<th>% Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Career professionals living in sought after locations</td>
<td>245</td>
<td>7.99</td>
<td>34,681</td>
<td>11.09</td>
<td>0.71</td>
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<tr>
<td>B Younger families living in newer homes</td>
<td>214</td>
<td>6.98</td>
<td>21,706</td>
<td>6.94</td>
<td>0.99</td>
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<tr>
<td>C Older families living in suburbia</td>
<td>471</td>
<td>15.36</td>
<td>60,755</td>
<td>19.43</td>
<td>0.78</td>
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<tr>
<td>D Close-knit, inner city and manufacturing town communities</td>
<td>823</td>
<td>26.83</td>
<td>78,347</td>
<td>25.05</td>
<td>1.05</td>
</tr>
<tr>
<td>E Educated, young, single people living in areas of transient populations</td>
<td>5</td>
<td>0.16</td>
<td>1,398</td>
<td>0.45</td>
<td>0.36</td>
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<tr>
<td>F People living in social housing with uncertain employment in deprived areas</td>
<td>242</td>
<td>7.89</td>
<td>17,932</td>
<td>5.73</td>
<td>1.35</td>
</tr>
<tr>
<td>G Low income families living in estate based social housing</td>
<td>600</td>
<td>19.56</td>
<td>34,314</td>
<td>10.97</td>
<td>1.75</td>
</tr>
<tr>
<td>H Upwardly mobile families living in homes bought from social landlords</td>
<td>265</td>
<td>8.64</td>
<td>21,393</td>
<td>6.84</td>
<td>1.24</td>
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<tr>
<td>I Older people living in social housing with high care needs</td>
<td>55</td>
<td>1.79</td>
<td>11,343</td>
<td>3.63</td>
<td>0.48</td>
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<tr>
<td>J Independent older people with relatively active lifestyles</td>
<td>136</td>
<td>4.43</td>
<td>30,116</td>
<td>9.63</td>
<td>0.45</td>
</tr>
<tr>
<td>K People living in rural areas far from urbanisation</td>
<td>11</td>
<td>0.36</td>
<td>770</td>
<td>0.25</td>
<td>1.43</td>
</tr>
<tr>
<td>Total</td>
<td>3,067</td>
<td>100</td>
<td>312,755</td>
<td>100</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Source: Mosaic Public Sector Grouping Tool

Reference


Appendix

LAA, NI70, Reduce emergency hospital admissions caused by unintentional or deliberate injuries to children and young people

This indicator aims to measure hospital admissions by injury type, which includes unintentional or deliberate injuries to children and young people. Some hospital admissions with an external cause of injury will be elective admissions, including some for follow-up treatment after an earlier emergency admission, the indicator is restricted to counting only emergency admissions.

Definition

An emergency hospital admission is defined as a person who presents as an emergency and is formally admitted to a hospital bed.

The Hospital Episode Statistics use the International Classification of Diseases (ICD) coding system. This indicator will use the external cause V01 to Y98 ICD-10 codes, excluding codes X33-X39 and X52 which refer to forces of nature.

‘Unintentional’ injury is used here to mean accidental external causes of harm e.g. traffic accidents, falls, trips, accidental contact with tools/machinery etc, drowning, exposure, burns and scalds etc.

‘Deliberate’ injury refers to the codes for assault, which are X85-Y09, covering different types of assaults – bodily force, sexual assault by bodily force, sharp/blunt objects etc.

Hospital episode statistics are broken down by age group. This indicator includes the 0–17 years (inclusive) age group.