Pedestrian Fatalities on Irish Roads: Examining 2008-2015

Dr. Aoife Kervick, Policy & Research Analyst, RSA
Email: akervick@rsa.ie
Background

• Pedestrians are a recognised **Vulnerable Road User (VRU)** group.

• This presentation provides an overview of the *preliminary findings* of a detailed *report* underway on pedestrian fatalities.

• The findings of this report will inform an *evidence-based pedestrian safety campaign*, due for release in 2019.

• This presentation has **3 sections**:  
  1. Overview of all pedestrian fatalities (2008-2015; Collision Data)  
  2. In-depth examination of pedestrian fatalities (2008-2015; Garda Investigation Files & Coronial Files)  
  3. Examination of culpability in pedestrian fatalities (2008-2012; Garda Investigation Files).
Pedestrian fatalities have reduced substantially over the years, but **further reductions** must be achieved.

**59% reduction from 2006 - 2017**

*These data are provisional and subject to change.*

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The Road Traffic Collision Database is maintained by the RSA, in collaboration with An Garda Síochána.

Until 2014, collision data were provided to the RSA via paper CT68 forms. Now, **electronic collision records** from An Garda Síochána are transferred to the RSA on a daily basis.

These data are typically collected at the scene of a Road Traffic Collision (RTC).

A **pedestrian fatality** is captured in the database where the fatal collision occurred on a public road, was notified to An Garda Síochána, and the deceased died within 30 days of the RTC.
In 2008-2015, 313 pedestrians were killed in 308 fatal RTCs. Pedestrian fatalities accounted for 19% of the total road users killed (N = 1621) during this time period.

Pedestrian Fatality Profile

- Gender (N = 313)
  - Male: 35%
  - Female: 65%

- Age (N = 313)
  - 0-12: 26
  - 13-17: 14
  - 18-25: 35
  - 26-35: 37
  - 36-45: 36
  - 46-55: 33
  - 56-65: 42
  - 66-75: 42
  - 75+: 48
Pedestrian Fatality Profile

Gender by Age (N = 313)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>13-17</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>18-25</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>26-35</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>36-45</td>
<td>9</td>
<td>27</td>
</tr>
<tr>
<td>46-55</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>56-65</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>66-75</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>75+</td>
<td>27</td>
<td>21</td>
</tr>
</tbody>
</table>

Number of pedestrian fatalities
Pedestrian Fatality Timeframe (N = 313)

12% took place in **December**. 44% occurred during **October-January**.

17% took place on a **Sunday**. 47% occurred during **Friday-Sunday**.

30% took place between **5pm-10pm**.

22% took place between **12am-5am** - a period of lower traffic volume (4% of journeys: 12am-6.59am, CSO National Travel Survey, 2016).

14% took place between **12am-5am** on Saturday and Sunday alone.

27% took place in **darkness on an unlit road**. 59% occurred during the **hours of darkness** overall (N = 307).

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Pedestrian Fatality Location

- The RSA categorise an **urban road** as one with a speed limit ≤ 60km/h (i.e. 30km/h, 50km/h, 60km/h roads).

- A **rural road** is one with a speed limit >60km/h (i.e. 80km/h, 100km/h, 120km/h roads).

- Overall, **57%** took place on an **urban road**.
  - **19%** took place in **Dublin** (88% urban)
  - **10%** took place in **Cork** (63% urban)
  - **8%** took place in **Galway** (69% urban)
Pedestrian Fatalities by County, 2008-2015
(N = 313)
Section 2. In-Depth Examination of Pedestrian Fatalities (2008-2015)
In 2014-2015, An Garda Síochána granted the RSA access to their available, completed Investigation Files of fatal RTCs in Ireland in 2008-2012.

These files contain the definitive details of the full circumstances of a fatal collision. They typically contain the following:

- Garda Investigation Report
- Forensic Collision Investigation (FCI) Report
- PSV Report
- Autopsy Report
- Toxicology Report
- Deposition Statement
- Coroner’s Verdict
- Death Certificate
• The **National Drug-Related Deaths Index** (NDRDI) is an epidemiological database maintained by the **Health Research Board** (HRB).

• The HRB collect the data to populate this database from **closed Coronial Files**, stored in Coroner’s offices nationwide following an inquest.

• **Action 120** of the Road Safety Strategy (2013 - 2020) involved the extension of the remit of the NDRDI to collect data on RTC fatalities from closed Coronial Files.

• Following a successful pilot in 2014-2015, the HRB have provided RTC fatalities data to the RSA on an annual basis - for **2013, 2014 and 2015** to date.

• These files typically contain the **same components** as the Garda Investigation Files (e.g. FCI and PSV report, toxicology report, autopsy report, Coroner’s Verdict etc.).
Pedestrian Actions

- **248** pedestrian fatalities were captured by the Garda Investigation Files and Coronal Files, of the **313** pedestrian fatalities that occurred during 2008-2015: **79% coverage**.

- Of those pedestrian fatalities with a record of:

<table>
<thead>
<tr>
<th>ACTION (n = 241)</th>
<th>TRIP PURPOSE (n = 213)</th>
<th>HI-VIS WEARING AFTER DARK (n = 96)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% - Crossing the road</td>
<td>86% - Social</td>
<td>98% were not wearing high-visibility clothing.</td>
</tr>
<tr>
<td>21% - Failed to observe</td>
<td>8% - Work related (commuting, for work, working on or near road)</td>
<td></td>
</tr>
<tr>
<td>9% - lying in road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8% - standing in road</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Alcohol Consumption

<table>
<thead>
<tr>
<th><strong>Threshold</strong></th>
<th><strong>Prevalence</strong></th>
<th><strong>Profile (n = 105)</strong></th>
<th><strong>Profile (n = 105)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;20mg/100ml blood or equivalent in urine</td>
<td>There was a record of whether alcohol was consumed for 215 pedestrian fatalities. Of these, <strong>49%</strong> were confirmed to have consumed alcohol.</td>
<td><strong>88%</strong> were male</td>
<td><strong>82%</strong> occurred between 6pm-6am</td>
</tr>
<tr>
<td>Cases where alcohol consumption was confirmed by Gardaí are also incorporated.</td>
<td></td>
<td>No distinctive high-risk age groups emerged.</td>
<td><strong>57%</strong> occurred on Fri-Sunday</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>60%</strong> occurred on rural roads*</td>
</tr>
</tbody>
</table>

*The RSA categorise a rural road as one with a speed limit of > 60km/h*
Alcohol Consumption

Pedestrian Fatalities BAC levels (n = 89)

BAC Level

- 21-50: 10
- 51-100: 5
- 101-150: 7
- 151-200: 15
- 201-250: 24
- 250+: 28

58% BAC >200 mg/ml
Section 3. Culpability (2008-2012)
Culpability in this context **does not refer** to judicial or criminal culpability.

We examine culpability because we need to **identify the actions** that played a role in the lead up to a collision. We can then target those actions in interventions.

Anyone can make an error while using the roads. For VRUs in particular, such as pedestrians, these can have tragic consequences.

The **culpability** of the parties involved in pedestrian fatalities was based on the body of work completed using the Garda Investigation Files (2008-2012).

In some instances, **no culpability** may be determined (e.g. hit and run), and in others, multiple road users can be **partially culpable**.
• There were Garda Investigation Files data for 178 of the 209 pedestrian fatalities across 2008-2012 - 85% coverage.

• While the report will focus on culpable drivers and pedestrians, for the purpose of this presentation, this section will examine the 49 drivers who were recorded as culpable or part-culpable in total.

• The limitations of examining this small sample of culpable drivers must be acknowledged.

• Culpability will be captured from the Coronial Files going forward, to increase the data available.
Culpable Driver (n = 49)

- Of those culpable drivers with a record of:

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INSURANCE</strong></td>
<td>(n = 44)</td>
<td>75% - had insurance</td>
</tr>
<tr>
<td><strong>LICENCE</strong></td>
<td>(n = 42)</td>
<td>95% - had a licence</td>
</tr>
<tr>
<td><strong>TYPE</strong></td>
<td>(n = 39)</td>
<td>77% - full licence, 13% - learner permit, 10% - disqualified</td>
</tr>
<tr>
<td><strong>GENDER</strong></td>
<td>(n = 47)</td>
<td>85% - male</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td>(n = 48)</td>
<td>27% - 18-25, 21% - 26-35, 19% - 36-45</td>
</tr>
<tr>
<td><strong>VEHICLE TYPE</strong></td>
<td>(n = 47)</td>
<td>68% - Car, 26% - Goods vehicle*, 6% - Other</td>
</tr>
<tr>
<td><strong>ACTION</strong></td>
<td>(n = 46)</td>
<td>54% - failed to observe, 15% - lost control</td>
</tr>
<tr>
<td><strong>TRIP PURPOSE</strong></td>
<td>(n = 45)</td>
<td>62% - Social, 22% - For work, 16% - Commuting</td>
</tr>
</tbody>
</table>

*Incorporates light and heavy goods vehicles, from vans to goods vehicles >2 tonnes, rigid.
24% of culpable drivers were speeding.

17% were driving a vehicle with a defect (e.g. tyres, brakes; n = 48 records available).

15% were confirmed to have consumed alcohol (n = 47 test records available). The majority of those with a positive toxicology had a BAC level >100mg/ml.
Conclusions
Key Findings

• **Older pedestrians** are a particularly vulnerable group.

• **October - January** is a high risk period for pedestrian fatalities, as are **weekends (12-5am)**.

• The majority of pedestrian fatalities take place in **darkness**, with very low levels of **high-visibility clothing** being worn*.

• The majority of pedestrian fatalities take place on **urban roads**.

• **A third** of pedestrians were **crossing the road**, and **1 in 5** had **failed to observe**.*

• **1 in 2** pedestrian fatalities were confirmed to have consumed **alcohol**.*

• **Half** of culpable drivers **failed to observe** before the fatal pedestrian collision*. A **quarter** of culpable drivers were **speeding***.

*Of those with a record of the particular behaviour.

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Pedestrian Safety and the RSA

Previous campaigns have included:

- **Multiple national media, social media and education campaigns** in primary and secondary schools (e.g. Streetsmart, Seatbelt Sheriff & Hi-Glo Silver, Streetwise).

- **‘Take One for the Road’** with Vintners Federation of Ireland (Dec 2017 - approx. 50,000 high-visibility vests available across 4,000 rural pubs nationwide).

- **‘Be Safe, Be Seen’** with ESB Networks (21st Dec 2017 - and during 2017, 110,000 high-visibility vests distributed to children starting school).
Pedestrian Safety and the RSA

• The RSA fully support 30km/h speed limits in built-up areas, and the use of Intelligent Speed Assistance (ISA).

• The RSA will be using the information presented today, and a survey on pedestrian safety to inform the design of an evidence-based, pedestrian safety campaign (2019).

• Protecting VRUs will be a core focus of the next Road Safety Strategy (2021-2030).
Thank you for your attention

If you have any further questions, please contact me at: akervick@rsa.ie