# Pedestrian Fatalities on Irish Roads: Examining 2008-2015

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## 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

**59%** reduction from 2006 - 2017

• Pedestrian fatalities have reduced substantially over the years, but **further reductions** must be achieved.

No. of Pedestrian Fatalities 2010 2011 2012 2013 2014 2015 Year





## Section 1. Overview of Pedestrian Fatalities (2008-2015)





#### Road Traffic Collision Database

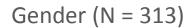
- The **Road Traffic Collision Database** is maintained by the RSA, in collaboration with An Garda Síochána.
- Until 2014, collision data were provided to the RSA via paper CT68 forms. Now, electronic collision records from An Garda Síochána are transferred to the RSA on a daily basis.
- These data are 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.

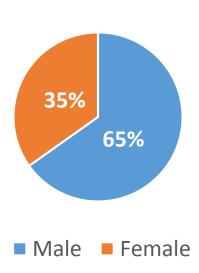


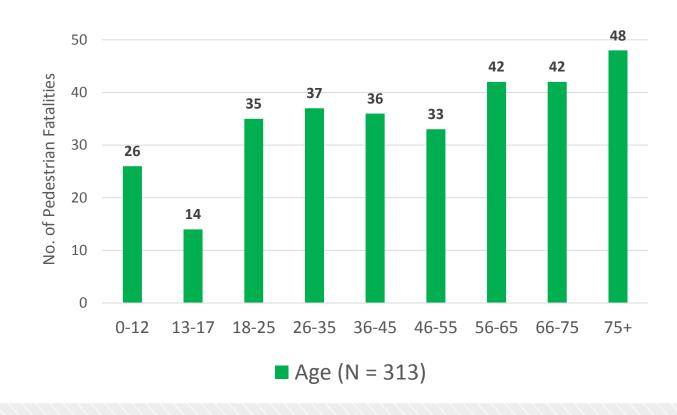


#### Pedestrian Fatality Profile

• 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.





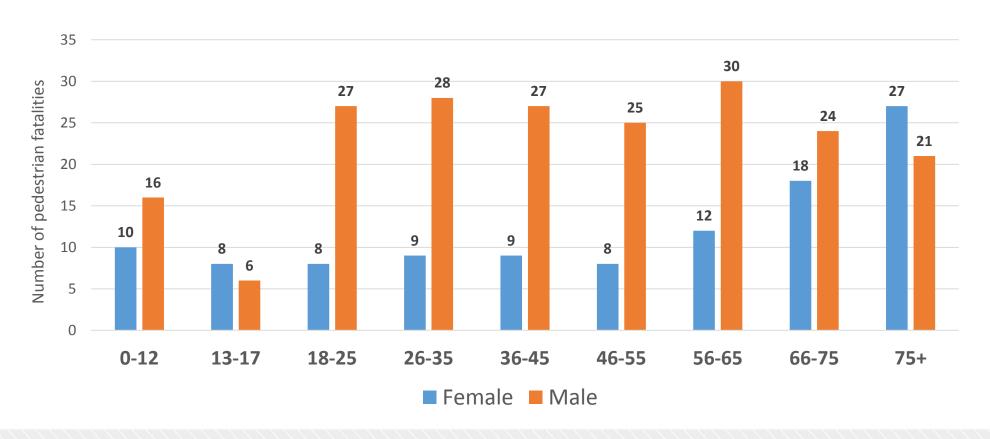






## Pedestrian Fatality Profile

Gender by Age (N = 313)







## 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).

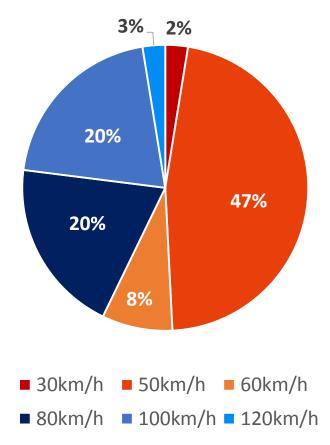




## Pedestrian Fatality Location

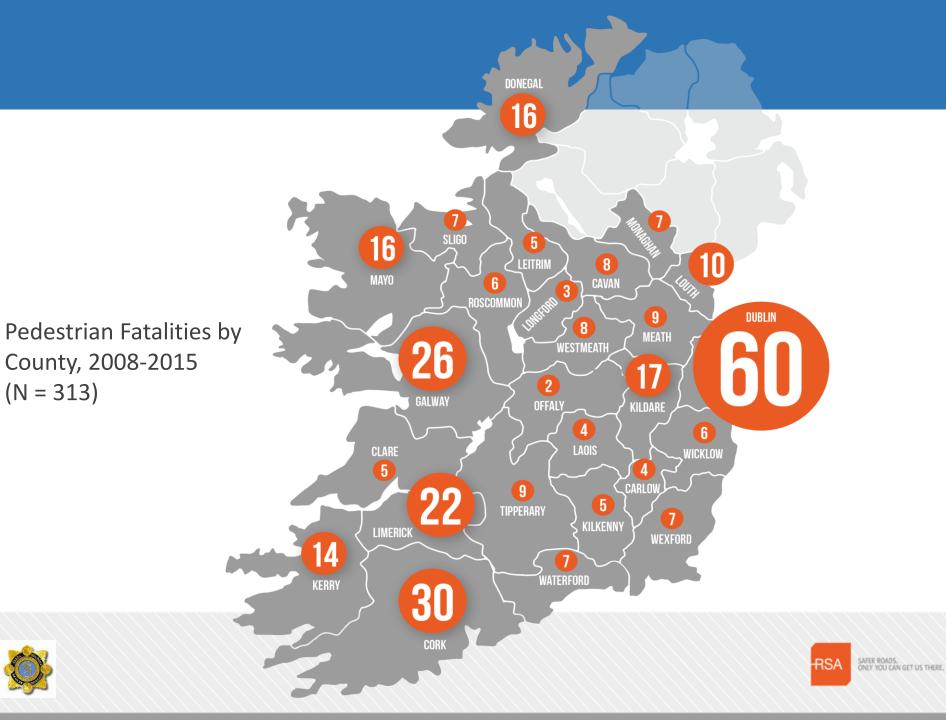
- The RSA categorise an urban road as one with a speed limit ≤ 60km/h (i.e. 30km/h, 50km/h, 60km/h roads).
- A **rural road** is one with a speed limit >60km/h (i.e. 80km/h, 100km/h, 120km/h roads).
- Overall, 57% took place on an urban road.
- > 19% took place in **Dublin** (88% urban)
- 10% took place in Cork (63% urban)
- > 8% took place in Galway (69% urban)













(N = 313)

## Section 2. In-Depth Examination of Pedestrian Fatalities (2008-2015)







## Garda Investigation Files (2008-2012)

- 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







#### Coronial Files (2013-2015)

- 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 Coronial Files, of the **313** pedestrian fatalities that occurred during 2008-2015: **79% coverage**.
- Of those pedestrian fatalities with a record of:

#### ACTION (n = 241)

**30%** - Crossing the road

21% - Failed to observe

9% - lying in road

8% - standing in road

TRIP PURPOSE (n = 213)

**86%** - Social

**8%** - Work related (commuting, for work, working on or near road)

HI-VIS WEARING AFTER DARK (n = 96)

**98%** were not wearing high-visibility clothing.







## **Alcohol Consumption**

#### **THRESHOLD**

>20mg/100ml blood or equivalent in urine

Cases where alcohol consumption was confirmed by Gardaí are also incorporated.

#### **PREVALENCE**

There was a record of whether alcohol was consumed for 215 pedestrian fatalities.

Of these, **49%** were confirmed to have consumed alcohol.

#### **PROFILE (n = 105)**

88% were male

No distinctive highrisk age groups emerged.

#### **PROFILE (n = 105)**

**82%** occurred between 6pm-6am

**57%** occurred on Fri-Sunday

**60%** occurred on rural roads\*

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

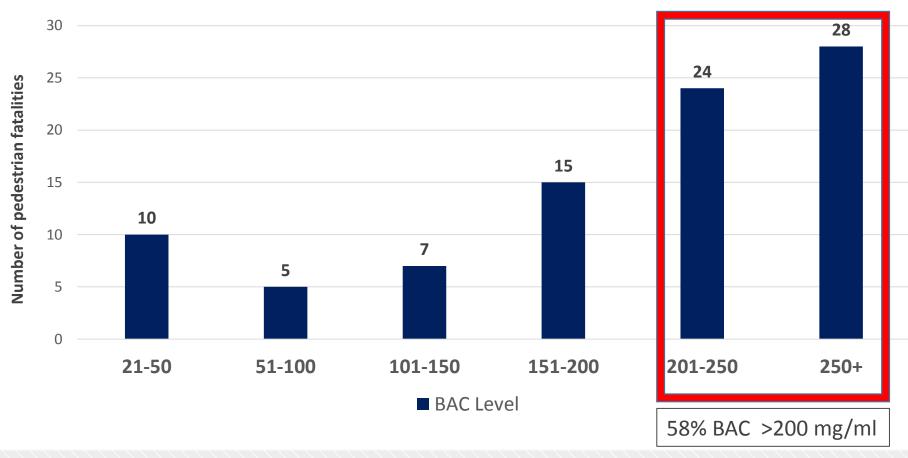






## **Alcohol Consumption**











## Section 3. Culpability (2008-2012)





## **Understanding Culpability**

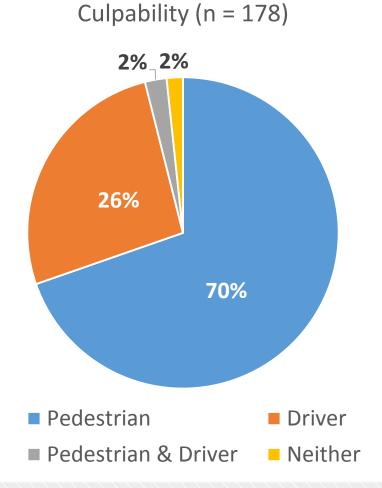
- Culpability in this context does not refer to judicial or criminal culpability.
- We examine culpability because we need to **identify the actions** that played a role in the lead up to a collision. We can then target those actions in interventions.
- Anyone can make an error while using the roads. 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**.





## Culpability

- 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:

#### INSURANCE (n = 44)

**75%** - had insurance

#### LICENCE (n = 42)

95% - had a licence

#### TYPE (n = 39)

77% - full licence

**13%** - learner permit

10% - disqualified

#### GENDER (n = 47)

**85%** - male

#### AGE (n = 48)

**27%** - 18-25

**21%** - 26-35

**19%** - 36-45

#### **VEHICLE TYPE**

(n = 47)

68% - Car

**26%** - Goods

vehicle\*

**6%** - Other

#### ACTION (n = 46)

**54%** - failed to

observe

15% - lost control

#### TRIP PURPOSE

$$(n = 45)$$

**62%** - Social

**22%** - For work

16% - Commuting

\*Incorporates light and heavy goods vehicles, from vans to goods vehicles >2 tonnes, rigid.





## Culpable Driver (n = 49)

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 highvisibility 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\*.



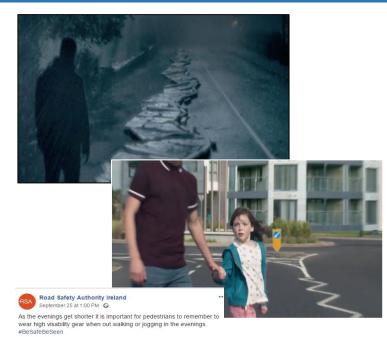




## Pedestrian Safety and the RSA

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 (21<sup>st</sup> 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





